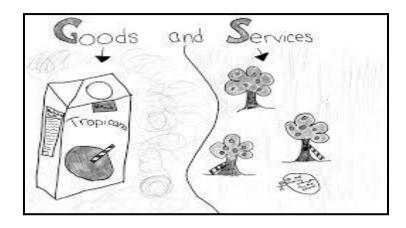


# **GRADE 9 BUSINESS STUDIES**

# **UNIT 2**

# **SATISFYING NEEDS AND WANTS (2)**



# **COURSE BOOK 2**

NAME:	
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FLEXIBLE OPEN AND DISTANCE EDUCATION PRIVATE MAIL BAG WAIGANI, NCD PAPUA NEW GUINEA

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# **GRADE 9**

# **BUSINESS STUDIES**

# UNIT 2

# **SATISFYING NEEDS AND WANTS (2)**

In this unit you will learn about;

**TOPIC 1: BUSINESS UNITS** 

**TOPIC 2: GOVERNMENT AND BUSINESS** 

**TOPIC 3: FINANCIAL INSTITUTIONS** 

**TOPIC 4: TAXATION** 

### **Acknowledgements**

We acknowledge the contributions of all Primary Teachers who in one way or another helped to develop this course.

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We also acknowledge the professional guidance provided by Curriculum and Development Assessment Division throughout the processes of writing and, the services given by member of the Primary Section and Academic Committees.

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#### **DIANA TEIT AKIS**

#### **PRINCIPAL**

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#### SECRETARY'S MESSAGE

Secretary for Education

Achieving a better future by individual students and their families, communities or the nation as a whole, depends on the kind of curriculum and the way it is delivered.

This course is part and parcel of the new reformed curriculum. The learning outcomes are student – centred and allow them to be demonstrated, assessed or measured.

It maintains the rationale, goals, aims and principles of the national curriculum and identifies the knowledge, skills, attitudes and values that students should achieve.

This is a provision by Flexible, Open and Distance Education as an alternative pathway of formal education.

The course promotes Papua New Guinea values and beliefs which are found in our Constitution, Government policies and reports. It is developed in line with the National Education Plan (2005 -2014) and addresses an increase in the number of school leavers which has been coupled with a lack of access to secondary and higher educational institutions.

Flexible, Open and Distance Education curriculum is guided by the Department of Education's Mission which is fivefold:

- To facilitate and promote the integral development of every individual
- To develop and encourage an education system which satisfies the requirements of Papua New Guinea and its people
- To establish, preserve and improve standards of education throughout Papua New Guinea
- To make the benefits of such education available as widely as possible to all
  of the people
- To make the education accessible to the poor and physically, mentally and socially handicapped as well as to those who are educationally disadvantaged.

The college is enhanced to provide alternative and comparable pathways for students and adults to complete their education through a one system, many pathways and same outcomes.

It is our vision that Papua New Guineans harness all appropriate and affordable technologies to pursue this program.

I commend all those teachers, curriculum writers and instructional designers who have contributed so much in developing this course.

# UNIT 2: SATISFYING NEEDS AND WANTS (2)



Welcome to the Second Unit in your Grade 9 Business Studies – Satisfying Needs and Wants (2). In this unit, you will learn about business units, rules and regulations that businesses have to abide by while doing business activities in the country. You will also learn that the government is also involved in running businesses as statutory bodies, plus some factors affecting service provision in the country, which may affect goods and service consumption patterns. These lessons will help you choose financial and banking services carefully plus other factors such as opening an individual account and getting maximum benefit for your hard earned money. You will also learn about the importance of taxation. Tax is collected annually by a statutory body which has been mandated by Parliament to carry out this task. Finally, demonstrate and understand taxation and its importance to the country and gather/present information about it from tax documents used by tax payers.

Grade 9 Business Studies – Satisfying Needs and Wants (2) incorporates four topics:

• Topic 1: Business Units

Topic 2: Government and Business

Topic 3: Financial institutions

Topic 4: Taxation

#### **Topic 1: Business Units**

In this topic, you will learn about "Business Units". It will help you identify any business just by looking at its name, goods and services provided, its owners, location of operation, laws that govern them and eventually whether the business is successful or unsuccessful. Some businesses operating in Papua New Guinea are owned by the state and most are owned and operated by private citizens or foreigners. They run them to earn profit. In the process you will also learn the rules and regulations that these businesses have to follow and abide by while conducting business in the country.

#### **Topic 2: Government and Business**

In this topic, you will learn about the Government and Businesses that operate in the country and the rules and regulations set by the government for businesses operating here to follow. However, not all business activities are left in the hands of the private business enterprises; some activities are so essential to the lives of citizens and as such are still provided for by the government alone or in partnership with private entities.

It is the responsibility of the government to make sure the country is free from crime, and lawlessness in-order for businesses to operate. An opportunity is given to study other types of businesses too like Not- for Profit, and Joint Ventures so you get to see an all around view of them all. There are some businesses that are operating to complement the efforts of the government and the private entities.

#### **Topic 3: Financial institutions**

In this topic, you will learn the role of the financial institutions and how they make finances available to the general public and businesses. You will learn that not all financial institutions are the same. Some are banks and some are non - banking institutions. Nevertheless, they all enable money to be made available to those who need it most especially in obtaining loans to further strengthen their business activities. You will develop the ability to set money aside for later use while going through this topic. Hands on practice exercises on opening bank accounts will be done, plus banking by phone, use of EPTOS, credit and debit cards, with the latest methods of internet banking. Some basic procedures such as depositing and withdrawing money, writing out cheques and reconciling a bank statement with the records of cheque butts will also be covered. These practices should give you very good hands on practice and information on Saving Money.

#### **Topic 4: Taxation**

In this topic, you will learn about Taxation. An opportunity is given here for you to learn about the taxation system in the country. Complex but essential to this country's expenditure every year it must be done so money can be raised to run the daily affairs of the nation. The nature of business activities determines the kind of tax paid. You will also learn about the body that does all the money collection and hands it over to the finance department who budgets for the annual expenditure. Finally you will, do some simple tax calculations fitting to your level of understanding in taxation.

GR 9 BS U2 7 GUIDE

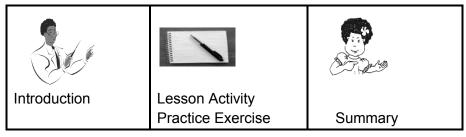
#### STUDY GUIDE

- Step 1: Start with Topic 1, study Lesson 1 and do the Lesson Activities as you go along. When you have completed Lesson 1, do Practice Exercise 1.
- Step 2: When you have completed Lesson 1 Activities and Practice Exercise 1, turn to the back of Topic 1 of Unit Course Book to correct your answers. The answers to your Practice Exercises are at the end of the topic. While the answers for your Lesson Activities are at the end of the Unit Course Book.
- Step 3: If you make any mistake, go back to the Lesson, revise well and try to understand why you gave an incorrect answer
- Step 4: When you have completed steps 1 to 3, tick the box for Lesson 1 on the contents page like this,

Lesson 1: Sole Trader and Incorporated Group
Lesson 2: Partnership

- Step 5: Go to Lesson 2 and repeat the same process until you complete all the Lessons in Topic 1
- Step 6: After completing your Lessons and Practice Exercises in each Topic, Then, complete each Topic Test in the Assignment Book 2
- Step 7: After you have studied the whole Unit, do also the Unit Examination in the Assignment Book 2
- Step 8: Check through your Assignment Book 2, when you are satisfied, then go ahead and apply for the External Examination

#### **Icons**



#### **Assessment**

There are two types of assessments books for this Unit. The first one is the Assignment Book which contains the **topic tests** and the **unit examination**. Both assessments are out of 100 marks each.

GR 9 BS U2 8 GUIDE

Your Assignment and Project Book will be marked by your distance teacher. The marks you score will count towards your final mark and grade.

If your score is less than 50%, you must repeat that Assessment. If you continue to score less than 50% in your assessment three times, then, your enrolment will be cancelled, and you need to re – enroll if you wish to continue this Course.

#### **Study Schedule**

Here is a Study Schedule. It will guide you to complete your Unit 2: Satisfying Needs and Wants (2) and its assessment.

WEEKS	TOPIC / LESSON NUMBER	ASSESSMENT	COMMENTS			
1- 2	Topic 1 Lessons 1-4	Topic 1 Test/15				
3- 4	Topic 2 Lessons 5-10	Topic 2 Test/15				
5- 6	Topic 3 Lessons 11-17	Topic 3 Test/15				
7-8	Topic 4 Lessons 18-21	Topic 4 Test/15 Unit Examination /40				
9-10	Submit your Assignment Book 1 for marking & apply for External Examination at your Provincial Centre.					

#### Remember

As you complete each lesson, tick the box on the contents' page. This helps you show what you have done and what you still have to do in each lesson.

All the best and enjoy your studies with FODE – Satisfying Needs and Wants (2)

# **TOPIC 1**

# **BUSINESS UNITS**

#### **TOPIC 1: Business Units**



Welcome to Topic 1- Business Units. This topic teaches you the different types of business units that conduct commercial activities within Papua New Guinea and overseas too if they are companies registered in the country. You will also describe the factors that enables and contributes to the production of goods and services for the producers and consumers

This topic contains four lessons.

#### Lesson 1: Sole Trader and Incorporated Land Groups

In this lesson you will define production and state its purpose. You will also identify business activities within you own local area and also Papua New Guinea and eventually recognise the relationship between production and trade.

### Lesson 2: Partnership

In this lesson you will be able to identify the three stages of production and identify local examples of each stage and in Papua New Guinea too.

#### Lesson 3: Companies

In this lesson you will identify the factors of production and their usefulness in the making and provision of goods and services. You will also see where our strengths and weaknesses are in the areas of production of goods and provision of services too.

#### Lesson 4: Informal Business

In this lesson you will covers areas such as definition of specialisation division of labour and mass production. Furthermore, the relationship between specialisation, division of labour and mass production and their advantages and disadvantages will be covered.

# **Lesson 1: Sole Trader and Incorporated Land Group**



#### Introduction:

Welcome to the first lesson of Unit 2 - Satisfying Needs and Wants (2). In this lesson, you will learn about the Sole trader, which is a business run by one person. You will also learn about landowner groups that start businesses at a village level. This lesson, will teach you how business units are set up, especially the sole traders and incorporated land groups. You will also find out their advantages and disadvantages. Later on in your next lesson you, will learn about other types of business units. Let's now begin with the sole trader.



#### Your Aims:

- Define the sole trader and incorporated land groups and state their features
- Discuss the advantages and disadvantages of a Sole Trader and Incorporated Land Groups

#### Sole Trader

#### What is a sole trader?

It is a business that is owned and run by one person. The sole trader owns the business, runs it, usually makes all the decisions and controls it. The owner is involved in every aspect of the business. Sometimes a sole trader may employ a manager and other employees to help run the business where necessary.

Money needed to set up and run a sole trader business comes from the owner and or family members. Owners can borrow money from other sources like the finance companies. However, it is often hard for them to borrow. Therefore most of the money comes from the owner.

There are usually very few formal legal requirements in setting up or running a sole trader business. The name of the business needs to be registered if the owner uses his or her own name. However, if sole traders use different business names for their businesses, then they must be registered. Now try activity 1.1 to re-enforce the above idea.

	Activity 1.1	Read and do the following exercises.
1		

E COLUMN														
(a)	Name fiv	e (5)	examples	of	sole	traders	you	are	likely	to	find	in	Papua	New
	Guinea?													
(i)_														
(ii)_														
(iii) <u></u>														
(v)														

#### **Features of Sole Trader**

The sole trader is the simplest and the oldest form of business organisation. Its formation does not require a lot of legal requirements. It is a small scale activity because the owner manages and controls it for his or her benefit.

The following are the main features of a sole trader business:

1. Capital

All the money required by the business is provided by the owner.

2. Easily Dissolved

The sole trader business can be easy dissolved because there are no legal requirements

3. Easy to Transfer

Because it is a one man business, it can be transferred easily due to no requirements

4. Freedom of Action

As a single owned business, the owner is the master of the business and because of that he or she can take action or make any decision he or she desires.

5. Formation

The formation of a sole trader is easy as compared to other businesses because it does not require any legal requirements

6. Legal Entity

There is no separate or any complicated legal entity apart from the sole trader itself.

7. Legal Restriction

There is no legal restriction for a sole trader to set up the business. But there may be legal restrictions for setting up particular types of businesses.

8. Limited Life

There is no continuity in sole trader business when the owner falls sick or and even dies.



# Activity 1.2 Read and answer the following questions.

(	a)	Joe	Yan	trad	ıng	is a	a sole	trad	er	owned	by	Pe	eter '	Yanjo	le	trom	∟nga	Р	rovino	œ.
---	----	-----	-----	------	-----	------	--------	------	----	-------	----	----	--------	-------	----	------	------	---	--------	----

(i)	Who will provide the money to sta	art this busines	s?	

(ii) If Joe is Peter's younger brother, can Peter register this business name. Explain your answer.

(iii) If the above name is registered then the business is required to get a trading licence. Again state whether if it is true or false and explain your answer.

#### Advantages and Disadvantages of a Sole Trader Business

Let us consider them starting from the advantages.

# **Advantages**

In a Sole Trader business:

- It is easy and not expensive to set up
- The owner can give the business personal attention and make decisions quickly.
   The Business that has more than one owner will take more time to reach decisions.
- All the profits go to the owner and so the owner has a great interest in the success of the business.
- There will be greater personal contact between the sole trader and customers, as well as workers. This will help the business to run smoothly and be successful.

### **Disadvantages**

In a sole trader business:

- The owner is responsible for everything including the daily running of the business. There may be some things which the owner is not skilled at doing, but which he or she must carry out. However, owners can employ skilled workers, if the business can afford it.
- The business may not be able to continue operating if the owner becomes sick. When the owner dies the business may cease to operate.
- The owner must provide all the capital to start the business
- The owner has unlimited liability for all the debts of the business. This means, the
  owner must pay all the debts. His or Her debts are not limited to what has been
  invested in the business at the beginning This is because the business does not
  exist separately from its owner.

	1	
	-	
ä	1	
i	1	
i	1	1

#### Activity 1.3 Read and answer the following question.

a) A sole trader is 'the master of his own house: Is this an advantage or not? Give easons for your answer.	)
	_

#### **Limited liability**

It is important that you understand what limited liability means before considering the different kinds of business units. Limited liability means losses suffered by owners or investors are limited to what has been invested in the business. So if a business becomes bankrupt the owners with limited liability lose only their investments and no more. A person with unlimited liability may be liable for more than their investment if

the business is unsuccessful. Their personal assets may have to be sold to repay the debt of the business. Sole traders do not have limited liability.

This means, if the business has large debts, the owner of the business is personally liable for them. The owner may have to use his or her own personal savings, or sell personal assets such as a house, in order to repay the debts of the business.

When the sole trader dies, the business - dies as well unless someone in the family is willing to continue the business. A sole trader business is suitable for small businesses, such as trade stores, and Public Motor Vehicles (PMVs) operators etc. If the business is involved in trading goods, it must obtain a trading licence. It must obey the laws regarding price control and workers compensation which is to insure all its employees. This is compulsory to protect employees. If they get into an accident during work, then the insurance company pays compensation. Apart from this, the business must obey operating laws, which we will learn about in the next lesson.

#### **Incorporated Land Groups**

This type of business exists only in Papua New Guinea. This incorporated land group business unit is set up so that people from the same tribe or clan could become involved in a business. Only members from the same clan can go into business.

This organisation or tribe or clan that goes into business is called Land Group or Incorporated Business.

There are not many legal requirements for setting up or running business groups. They are required to operate in line with the Business Groups Act. According to this law, the following principles must apply.

- Only people who are bound by the traditional laws of the same clan or customary group can become members.
- All problems are sorted out using customary laws.
- Not much record need, to be kept.
- Only PNG citizens can become members of the land group.
- The Land group name must be registered and approved by the registrar of companies.
- The Committee is appointed by the clan or the tribe to manage the affairs of the business.
- All members have limited liabilities.
- Land groups can borrow money from other organisations.

The appointed committee member who controls the finance should register the business first. The leader of the group is called the Chairperson. Any profit from the Incooperated Group is shared according to the customary laws.

This type of business is very common for people living in rural areas of PNG. It has become a very common business due to major project development in rural areas. You will learn more on this topic in the Grade 10 units.

Remember that mining and petroleum projects in PNG have created so many land groups which are going into this kind of business. Their main capital is from the Land compensation and royalty payments.



# Activity 1.4 Read and answer the following question.

(a	) Ask a family member where Incorporated Land Groups can obtain finance starting capital to go into this business unit.  (i)	or
	(ii)	-
	(iii)	•
		•

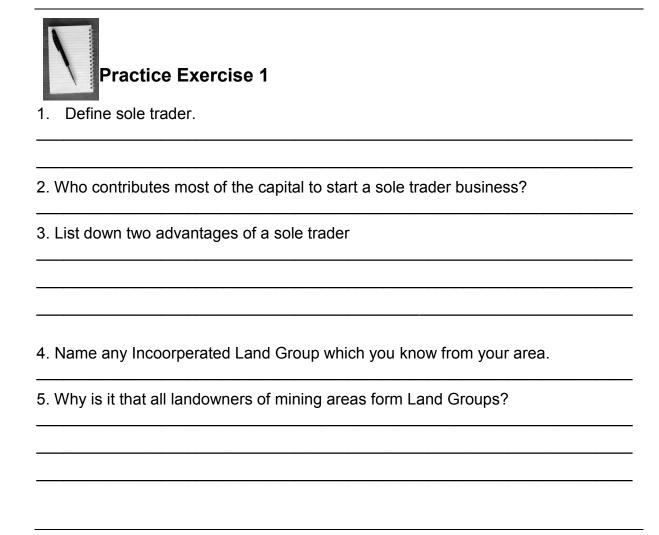
# Summary:



You have come to the end of Lesson 1. In this lesson you learnt that;

- A sole trader is a business that is owned and run by one person.
- Sole traders have unlimited liabilities.
- Not many legal requirements are required to start and run the business.
- Sole traders benefit from the profit and if he/she dies then the business comes to an end.
- Incorporated land groups are formed by the members of the same clan or tribe.
- Most of the incorporated land groups are formed to benefit clans from major development in the area, like mining, logging, and fishing industries.

NOW DO THE PRACTICE EXERCISE 1 ON THE NEXT PAGE



NOW CHECK YOUR WORK. ANSWERS AT THE END OF TOPIC 1 ON THE PAGES 174-176

# Lesson 2: Partnership



#### Introduction:

Welcome to Lesson 2 on the topic Business Unit - Partnership. In your first lesson you studied how Sole trader operate their businesses. In this lesson, you will learn how partnership business operates – in terms of running their business as well as sharing of profits.



#### Your Aims:

- Define partnership and state its features
- Discuss the advantages and disadvantages of partnership

#### The Partnership

Partnership means more than one person who agree to partner and bring their resources and skills together and operate a business. The capital contribution made by different partners is more compared to the sole trader.

A partnership may consist of at least two (2) but not more than twenty (20) members. In other words two or more sole traders can start a partnership business. Most members will contribute some capital. A partnership therefore should have more money to invest than a sole trader.

A partnership is easy to set up – where a written agreement is not necessary. However, it is advisable to have a written contract that it is known as a Partnership Deed.

Now you can consider all the details that could be included in the partnership agreement that we call a partnership deed:

- The amount of money contributed by each partner.
- State how profit or loss will be distributed or shared among members.
- The role of partners and the type of business they do. Only few members may
  work while others who contribute but don't run the business. They are called
  sleeping partners while those running the partnership are known as active
  partners.

#### Features of a Partnership

The affairs of a partnership are carried out by some or all of the partners. Sometimes outside managers may be employed to run the business.

A partnership, like a sole trader business is not a 'legal entity'. That means, it does not legally exist separately from its owner. So a partnership cannot be taken to court by individuals. Instead, its members are taken to court if anything goes wrong. This means that partners have unlimited liabilities. If a partner suffers a debt for the partnership, all members are liable for this debt. Even if this debt is incurred by a few members, all members are equally liable to meet the debt. They can be sued individually or jointly (collectively).

A partnership business may come to an end if one partner (or more) leave or die or if new partners join. Often a new partnership deed will be drawn up and the business will continue. However, when partners leave they want their share of the business. Assets may have to be sold, which may affect the business.

Disagreement among partners is often another cause of partnerships coming to an end.

#### Other Common Features:

- Wages will be paid to working partners
- Problems will be solved according to the Agreement or Partnership Deed.
- Extra interest for partners who contribute more capital
- How and when to allow new partners to join in.

So now you can see why all relevant ideas and ways to run a partnership business is listed or written down in a partnership business. We will now look at the advantages and disadvantages of partnership.

### **Advantages of a Partnership**

- A partnership is able to draw on more capital than a sole trader.
- Losses can be shared among the partners and are not the responsibility of one person.
- Partners can specialise in those areas where they have particular skills.
- Even in small partnership, if one person is ill or on holiday there is still someone to carry on the business.
- Easy to form
- Easy to wind up (close)

#### **Disadvantages of Partnership**

They include:

- Decisions may be delayed by a disagreement because a number of people are involved.
- Partners have unlimited liability. This means they are personally liable for the
  mistake of other individual partners. If one or two partners become inefficient
  or dishonest, the other partners suffer as a result. For this reason, it is most
  important to study your partners well before entering into a partnership
  agreement.
- If there is a change of partners or one partner dies, a new partnership agreement is required. A new partnership must be formed as the old partnership will immediately dissolve.
- Difficulty in protecting business secrets
- Every partner is an agent of others
- It may be hard to replace an out- going partner especially one whose skills and finances are needed by the partnership.
- Continuity of the partnership ends when a partner leaves or dies.



# Activity 2.1 Read and answer the following questions

(a) "There is often no continuity in a partnership". Explain when such cases happen.

(b) A partnership business has only K120	), 000 worth of cash and assets – If this
business has a debt of K140,000 then list	three areas where the partners can get
money to repay the debt.	· · · · · · · · · · · · · · · · · · ·

/:\

(ii)\_\_\_\_\_\_

(iii)\_\_\_\_

### **How Profits are distributed among Partners**

# How Partnership Profits are normally distributed

Maria, Willien and Dree together formed a partnership. The capital contributions are K4500, K7500 and K5000 respectively. They agreed to share profit in relation to their capital contribution in their Partnership Deed. In the first year the partnership makes a net profit of K42, 500. How much would each partner receive?

#### <u>Answer</u>

Total contribution of all partners K4500 + K7000 + K5000 = K16 500

Partner contribution x Profit

Share of profit of each partner = \_\_\_\_\_\_\_

Total contribution

Total contribution

Maria's share of profit = K4500 x K42 500

= K11 590.91

K16 500

Willien's share of profit =  $K7500 \times K42500 = K18030.30$ 

K16 500

Dree's share of profit =  $K5000 \times K42500 = K12878.79$ 

\_\_\_\_\_

K16 500

Now try activity 2.3 to re-enforce the above idea.



# Activity 2 .3 Read and answer the following questions

1. Veronica, Seta and Willien are three sisters who started a partnership trucking business. Their capital contributions are as follows:

Seta - K60 000 Veronica - K15 000

Willien - K75 000

Their trucking business made K180,000 in the first year. They have all agreed to share the profit among themselves, according to their capital contributions. All the three partner's capital contributions totals to K150 000. When all the partners profits are added they should have K180 000, which is the amount being shared amongst the partners.

Seta	Willien	Veronica
K60 000 X K 180 000	K75 000 X K 180 000	K15 000 X K 180 000
150 000 1	150 000 1	150 000 1
=K 72 000	=K 90 000	=K 18 000

There are different ways of sharing partnership profits among the partners. The example given on page 21 is done according to the capital contribution. Below is another example of how partnership profit may be distributed:

A partnership consists of four (4) partners – Felix and his wife Mary, Joseph and his brother Peter. The partners contributed capital as follows.

Felix K10 000 Mary K 1 000 Joseph K 7 500 Peter K 2 500

In a partnership deed, it is stated that;

- Felix and Peter should receive a salary of K10 000 each.
- All partners should receive interest of ten percent (10%) on their capital contribution.
- Profit (after interest and salary payments to partners) should be divided equally the among partners.

If a net profit of K100, 000 was made, this is how it would be distributed.

#### Salaries

Felix K10 000 Peter K10 000 Total K20 000

#### **Interest Payments**

Felix 10 000 x10/100=K1000
Mary 1 000 x10/100=K 100
Joseph 7 500 x10/100=K 750
Peter 2 500 x10/100=K 250

Total K 2100

Profit for each partner (after interest and salary payments) will be:

Profit K100 000

Less

Salaries K20 000

Interest K 2 100 <u>K22 100</u> **Total** K77 900

Profit for each partner (after salary and payments)

K77900 / 4 = K19475

See below the profit distribution for each partner:

Partners:	Felix	Mary	Joseph	Peter
Salary	K10 000			K10 000
Interest	K 1000	K 100	K 750	K 250
Profit	K19 475	<u>K19 475</u>	<u>K19 475</u>	<u>K19 475</u>
Total	K 30 475	K19 575	K20 225	K29 725

Partnerships are suitable for people with professional skills as well as trading skills. For example, a group of accountants, architects, doctors or dentists may come together and form a partnership. In this way, a number of doctors, for instance, can benefit by sharing the same office and facilities or work on shifts. In fact, the majority of partnerships are formed by professionals.

#### The Partnership Ordinance

If no partnership deed was drawn up, then dispute among partners are settled in court according to the rules in the Partnership Ordinance. This is a law or legal act that governs partnership. This law lays down or states, for example, that profit of partnership should be distributed evenly among the partners if a partnership deed agreement has not been made beforehand. The same will apply where a partnership makes a loss.

#### **Summary:**



You have come to the end of Lesson 2. You have learnt that

- Partnership business has two to twenty (2 20) members with same interest to run a business.
- A Partnership deed states the general information of how partners will solve disputes in the business.
- Partners have unlimited liabilities.
- It there is no partnership deed then disputes are solved according to partnership ordinance.
- Profits made can be shared accordingly to the partnership deed.
- If one partner dies or leaves then it will not affect the business but a new agreement needs to be reached among those who will continue.

NOW DO PRACTICE EXERCISE 2 ON THE NEXT PAGE



# **Practice Exercise 2**

- (1) Four partners contributed the following amount of capital when establishing a partnership:
  - Partner A K20 000
  - Partner B K30 000
  - Partner C K10 000
  - Partner D K40 000

the capit	ion. If the pa		n proportion to w much would

- (2) The capital contribution of three partners in a business are as follows
- Arnold K20 000
- Cisco K22 000
- Firmin K25 000

According to the partnership deed, Arnold – as Managing Director should receive 20% of the net profit, each partner should receive 5% interest on capital, the remaining sum should be divided equally among the partners. Calculate how a net profit of K45 000 should be divided.

NOW CHECK YOUR WORK. ANSWERS AT THE END OF THE TOPIC 1

# Lesson 3: Companies



#### Introduction:

Welcome to the third lesson in your Business Units. You have already covered sole trader and partnership businesses in your previous lessons. That means that you learnt how these two types of businesses operate. In this lesson, you will learn the largest types of the business units which are the companies. There are two types of companies known as: Proprietary companies, and Public companies We shall go over them together because the operations of these two businesses are the same. However, some differences will be considered as we move on with this business unit.



#### **Your Aims:**

- Define companies and identify the types
- Discuss the features of companies
- Discuss how the companies are established
- Discuss the advantages and disadvantages of companies

#### Companies

Companies are referred to as limited liability companies because the owners have limited liabilities. Owners are called shareholders because they invest capital in the company. If someone owns shares in a company, this means that she or he have contributed capital to that company by buying shares. This also means that when a company makes a profit, shareholders would get their share of profit known as the dividend. This means that the company operates as a legal entity on its own and is separated from the shareholders.

However, if a company makes a loss, shareholders are not responsible for the loss as their liability is limited. They will lose whatever they contributed to the business and no more like the other two business units you covered already.

#### Example:

Mathew is the company manager and he manages a house worth K70, 000, a vehicle worth K107, 000, and other items and assets worth K100, 000. He manages all the resources on behalf of the company. If the company makes a loss of K100, 000 at one time, he will not be liable to repay this because he has limited liability. The company can close down and the law will not do anything to make Mathew pay for the debts. That means all shareholders will not be responsible for the loss.

In order to set up a company there are many legal requirements which must be followed. These requirements are all laid down in the company Act. This Act is the law containing rules about how companies should be formed and operated. Before anyone can set up a company two documents must be prepared according to the laws.

#### (1) The Memorandum of Association

This is a general document stating what kind of business the company is involved in. Here are examples of how a company may be described:

- To operate a coffee plantation
- To buy, process and market coffee

- To provide meal and lodging in a guest house
- To operate a vehicle for transporting cargo and people

### (2) The Articles of Association

The article contains the rules for the day to day running of the business. They are like a constitution for a club. The articles are broadly the same for most companies. There are sample articles of association contained in the Company Act. There are examples of how articles may be written. These model articles are used sometimes with a few changes by many companies when they set up.

The Memorandum and Articles of Association must be sent to the Registrar of Companies for approval. When all documents are approved, a Certificate of Incorporation is issued. This allows the business to operate as a limited company and as a legal entity. Some of the roles and powers of the Registrar of Companies are:

- Registering new and existing companies
- Recording and maintaining new and existing companies
- Controlling the formation of new companies
- Renewing existing companies
- · Changing existing companies to suit their needs
- · Removing companies that do not comply with regulations set.
- · Reinstating a company on request of shareholders.
- · Gives advice on areas of business interests to clients

Activity 3.1	Read and answer	the question below.	
What is the main fund	tion of the Registrar	of Companies?	

#### How a company operates

Shareholders appoint members who are called directors to manage the big companies. Managers are responsible for the day to day running of the business. The directors form the group which are referred to as Board of Directors. A manager is appointed by the board known as the managing director to run the business.

The Board of Directors' job is to make decisions on the running of the company. They are shareholders representatives. The board appoints a company secretary who is responsible for financial dealing, calling up board meetings and keeping records of the company. The board meets once a year to go through company profit and declare dividend. These profits are then distributed to shareholders as dividends. The company is operated under the Board of Directors. That means all big companies decisions are made by the directors.

At the end of every year, financial records are audited and the company books are checked by auditors or accountants. Reports from these will show whether the

business has made a profit or not. All major decisions and reports made are made public and also distributed to shareholders known as the annual report with clear indications of profits made by the company.

Activity 3.2	Read and ans	swer the que	stion below	
Who appoints the Bo	ard of Directors	s of a compa	ny?	

Many companies get into serious financial difficulties. They may be unable to continue operating because of a shortage of cash or have more debts to pay. When such is the case, creditors of that company are given powers to act under the Company's Act. They may insist that the company agrees to:

- develop a recovery plan or
- wind up (or stop operating)

If or when a company cannot recover after the above arrangement then the shareholders through the Board of Directors take the following steps.

• Appoint an outside accounting firm as a receiver to raise money from the business and pay off all creditors. This will be done assuming that the business will recover.

If shareholders or creditors don't believe that the company will recover, then they can appoint a liquidator. This person will liquidate or sell all the assets of the company. The money from the sale will be used to pay off the creditors. Any money left over after creditors have been paid off will be distributed among the shareholders.



# Activity 3.3 Read and answer the question below

1. Explain the job of the following people.					
(i) receiver					
(ii) liquidators.					

Having examined the general nature of companies, we shall now look separately at each of the two types of companies which exist.

#### (1) Proprietorship Companies

A proprietary company is owned by fewer and related people and is referred to as a private company. Owners may be made up of family members with few outside

shareholders. These are small companies with two to fifty members only. The members decide who will become shareholders and whoever leaves cannot sell their shares to outside members.

These private companies must have Proprietary limited (or Pty Ltd) after the company name. The shareholders have limited liability.

# **Advantages of a Proprietary Company**

- Shareholders have limited liabilities
- More capital contributed by 50 members so it can be a very big business.
- It has a legal existence, separate from its owners. This means the business will continue to exist even when certain members leave the company or die.

### **Disadvantages of Proprietary a Company**

- There are a lot of regulations to follow such as the Memorandum of Association, Articles of Association, preparing annual reports conducting and having meetings and others that will cost money and take up time.
- Must follow the Company Act and any other regulations as required by the law.
- Smaller amounts for dividends because profits are shared among shareholders

#### (2) Public companies

Public companies are started by interested people who are called **Promoters**. The promoters or private companies who wanted to set up public companies will allow any interested members of the public to invest capital through buying shares. They issue application booklets called **Prospectus** to interested public inviting them to buy shares. These vary in business like Porgera Gold Mine or the OK Tedi Copper Mine. The public companies' name ends with limited (or Ltd only). General public can give loans called debentures to these companies or buy shares from them. The public companies are listed on the **Stock Exchange** and the general public is allowed to buy shares. All shareholders have limited liability and minimum or lowest number of shareholders is five (5) members with no maximum. Dividends are paid to shareholder on a fixed rate when the company makes profit.

### **Advantages of a Public Company**

- A public company can raise a lot of money by offering shares to the general public
- Shareholders can sell their shares to any public they wish because it is listed in the stock exchange.
- Shareholders have limited liability so they lose only what they invested in the company.

### **Disadvantages of a Public Company**

- Requires a lot of legal requirement to meet in setting up public companies
- It will not have privacy because every work done will be published for all share holders
- Shareholders share the profit and get smaller dividend

# **Summary:**



You have come to the end of Lesson 3. You have learnt that

- There are two types of companies:
- a. Propriety
- b. Public companies.
- Owners of the company are called shareholders.
- · Shareholders of companies have limited liabilities.
- Memorandum of Association states what the company is dealing with.
- The Articles of Association states the company rules and regulations.
- Company is run by the Managing Director, appointed by the Board of Directors who are usually the major shareholders.
- The Private Company sells shares among the members only and the Public Company sells shares to the public.

NOW DO PRACTICE EXERCISE 3 ON THE NEXT PAGE

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# **Practice Exercise 3**

(1)	List three (3) advantages of a propriety company.
(2)	What restriction applies to members of a Propriety Company in the buying and selling of shares in their company?
(3)	How can a public company increase its capital?
(4)	Name the document that contains the day to day running of limited companies.
(5)	Name the person responsible for the day to day running of the limited companies
(6)	Who is the person responsible for checking the company accounts?

NOW CHECK YOUR WORK. ANSWERS AT THE END OF TOPIC 1

#### **Lesson 4: Informal Business**



#### Introduction:

Welcome to Lesson 4 on Informal business. In your previous lesson, you learnt about the other formal business units. In this lesson, you will consider the businesses that are operating with the set rules and those without any legal setups.



#### Your Aims:

- Compare formal and informal businesses and discuss the importance of informal businesses
- Identify examples of informal businesses in Papua New Guinea
- Discuss the advantages and disadvantages of informal businesses

In Papua New Guinea most of our people live in rural areas with minimal or no education. Most of these people are cut off from important services so they live their subsistence way of living.

This means that not many working people with money are available. So the majority of them deal with informal business just to get money for daily survival. It is very difficult for them to go into formal business because the market or people willing to buy what they sell are very few.

The road network, communication, banking and other major services makes it impossible for most of the people to go into formal business. So most businesses in the informal sector are increasing because the sole purpose is to improve the living standards of people

#### **Informal Business**

Firstly, we have to define and explain what formal businesses are and their characteristics. Informal business means business activities conducted without government regulations and outside the mainstream activities and transactions. Informal business is the opposite of the formal business. It basically refers to the business activities that do not need formalisation. They can start now and end whenever they wish. Informal businesses are also referred to as the informal sector. That means in business there are formal and informal sectors.

#### **Formal Business or Formal Sector**

This is the major business sector that is more organised and operated according to the business laws set by the government. Most businesses in Papua New Guinea come under the formal sector. That means that businesses under the formal sector must follow rules and regulations. Some of these laws and regulations are listed below to assist you identify the formal business.

- Businesses must register with the Investment Promotion Authority.
- All should pay taxes to the government.
- Operate according to the time limit set. For example, 6am to 5pm
- Employ people and pay them using the minimum wages set by the government.
- Obey Environment Planning Act and Pollution Law.

- Insure the employees and provide conditions of employment for each employee according to the laws.
- Have a trading licence to do business.
- Keep records for accountability purposes.

There are others like price regulations on essential goods and many more. That means formal businesses operate under strict rules and follow laws.

#### Informal Sector

Most of the businesses under informal sector are usually small businesses operating in cities, towns and the majority in rural areas. These small businesses are mostly operated by uneducated or semi educated people. No legal requirements or laws are followed. These businesses come in the form of marketing - where local produce are grown and sold.

In Port Moresby, the major informal business is selling of betel nuts (buai), garden produce and store goods. These businesses have no operating time limits, do not pay any form of taxes to the governments, do not keeping any records of sales and do not follow other laws like the ones in the formal sector.



# Activity 4.1 Read and answer the following question.

1. Write down five (5) examples of informal businesses in Papua New Guinea.
(a)
(b)
(c)
(d)
(e)
· /

#### **Business Project**

In Papua New Guinea business projects are operated mostly by Papua New Guineans in the rural areas. As you know that our country is a developing country with the majority of people living in rural areas. Also due to high unemployment not many of our people are employed.

People migrate into cities and towns looking for formal jobs. With a large population in urban areas it's very difficult to go into formal business to provide for their living expenses. It is through the informal sector that most people depend on for their daily living.

Furthermore, it's very difficult for an average Papua New Guineans to venture into formal business with limited education. Living in cities like Port Moresby, is a very expensive. Therefore most of the people go into business like selling second hand clothes, ice blocks, soft drinks or others to sustain their living.

Also major development of Papua New Guinea is through informal sector. Our major resources are in the rural areas and a lot of contract work in these resource areas are given to the landowners or people who reside close to these areas

where development is taking place. People who have money are happy to spend their limited cash there because they know that they will earn a lot of money from their contract work. Plus, because eighty percentage (80%) of its population live in the rural area working to plant cash crops and are limited in educational qualifications and will do even the smallest job to earn a wage for living. Most of the people are involved in businesses which generate income. This money can be used to pay for vital services and goods provided through the formal sector. That means that through the informal sector, money is generated and major developments are taking place.



# Activity 4.2 Read and answer the following question

1.	State three (3) ways in which the informal business sector contributes to the economy of the country.  (a)
	(b)
	(c)

### **Advantages of the Informal Sector**

- They raise money for survival in urban areas.
- It's very easy to get into business without going through hard work dealing with legal matters.
- Business activities can be set up at any suitable location.
- · Basic needs are provided through informal businesses
- · Most peoples' standard of living can be improved through the informal sector
- Cash is readily available.
- Any person with capital can do business at anytime they wish.

# **Disadvantages of the Informal Sector**

- Most businesses under informal set-up do not last long.
- Some informal sectors sell illegal products.
- Informal businesses, sell at restricted areas.
- The Pollution Act is violated by informal businesses.
- A lot of petty crimes are committed at informal sector locations.
- Most food products are not handled properly.
- · There is no set time for informal sectors
- The Government misses out on all possible taxes.
- The Informal sector has no control in quality, price, and the health regulations.

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#### Activity 4.3 Read and answer the following question

Explain the main (	(1) difference between	i tormai and informai	business.

#### **Summary:**



You have come to the end of Lesson 4. You have learnt that

- A Formal business is registered and more organised.
- An Informal sector is not registered and can do business in any way people want.
- An Informal business helps most of the people to generate income for living.
- An Informal sector consists of farming, fishing, or selling products outside the regulated business framework
- The Informal sector avoids taxes and rates as well as businesses selling some illegal products without government control.
- Though it may be considered illegal, some businesses are more organised and are still rated as informal, due to the legal requirements.
- Many Papua New Guineans are engaged in the informal sector today.

NOW DO PRACTICE EXERCISE 4 ON THE NEXT PAGE



# Practice Exercise 4

1.	From the list of businesses below you indicate (FB) for Formal business and (IB) for Informal business.  (i) Joe Blow Trading
	(ii) Front yard marketing
	(iii) Selling fish at Koki market
	(iv) Selling scones at a community school
	(v) Selling bottles of beers at home after 10pm
	(vi) Selling second hand clothing in an open place
	(vii) Selling biscuits along the main highway
<ul><li>2.</li><li>—</li></ul>	A soft drink company supplies drinks to informal businesses to sell. Which business sector will  (i) the seller come under  (ii) the soft drink company come under  (iii) the informal sector be outlawed, or will the soft drink company be charged. Explain your answer
3.	List at least five (5) items rated as illegal products sold by the informal businesses:  (a)
	(b)
	(c)
	(d)
	(e)

NOW CHECK YOUR WORK. ANSWERS AT THE END OF THE TOPIC 1

# ANSWERS TO TOPIC 1 PRACTICE EXERCISES

#### **ANSWERS TO PRACTICE EXERCISE 1-4**

#### **Practice Exercise 1.**

- 1. Define sole trader.
  - (a) It is a business that is owned and run by one person.
- 2. Who contributes most of the capital to start a sole trader business?
  - (a) The owner
- 3. List down two advantages of a sole trader
  - (a )1Theowner makes all the decision
    - 2 The owner benefits from all the profit
- 4. Name any Incooperated Land Group existing which you know in your area
  - (a) Any answer is correct as long as it's a land group
- 5. Why is it that most landowners of mining areas form a land group?
  - (a) The landowners from Incooperated Land areas want to benefit from the land compensation and land royalties payment

#### **Practice Exercise 2**

- (1). Four partners contributed the following capital amount when establishing a partnership:
  - Partner A K20,000
  - Partner B K30,000
  - Partner C K10,000
  - Partner D K40,000

According to the partnership deed, profit should be distributed in proportion to the capital contribution. If the partners made a profit of K50 000 how much would each partner receive?

Partner a: K20 000/K100 000 x 50 000= 20%= K10 000
Partner b: K30000/K100 000 x 50 000= 30%= K15 000
Partner c: K10 000/K100 000 x 50 000= 10%= K 5 000
Partner d: K40 000/K100 000 x 50 000= 40%= K20 000
Total = K50 000

- (2). The capital contribution of three partners in a business are as follows
  - Arnold K20,000
  - Cisco K22,000
  - Firmin K25,000

According to the partnership deed Arnold – as Managing Director should receive 20% of the net profit, each partner should receive 5% interest on capital contribution, the remaining sum should be divided equally among the partners. How much will each partner receive from a net profit of K45 000?

#### Distribution;

	Arnold	Cisco	Firmin	
20% payment	K9000			
5% Interest	K1000	K 1 100	K 1 250	
Shares	K10850	K10 850	K10 850	
Total	K20850	K11 950	K12 100	
K20850 + K11 950 + K11 950 = K44900 ( rounded to nearest thousand K45 000)				

#### **Practice Exercise 3**

- 1. List three (3) advantages of a proprietary company.
  - (a) The public is allowed to buy shares in this company
  - (b) Limited liability
  - (c) More capital can be raised
- 2. What restriction applies to members of a Propriety Company in the buying and selling of shares in their company?
  - (a) They only sell shares amongst the members or shareholders of the company.
- 3. How can a public company raise its capital.
  - (a) They can sell more shares to new people to raise more capital
- 4. Name the document that contains the day to day running of the limited companies.
  - (a) Articles of Association
- 5. Name the person who is responsible for the day to day running of the limited companies.
  - (a) Managing Director
- 6. Who is the person responsible for checking the accounts?
  - (a) Company accountant or external auditor

#### **Practice Exercise 4**

- 1. From the list of businesses below you indicate (FS) for Formal business and (IF) For the Informal sector.
  - (i) Joe Blow Trading (FS)
  - (ii) Front Yard Marketing (IF)
  - (iii) Selling fish at Koki market (IF)

- (iv) Selling scone in a community school (IF)
- (v) Selling bottles of beers at home after 10.pm (IF)
- (vi) Selling second hand clothing in an open place (IF)
- (vii) Selling biscuits along the main highway (IF)
- (b) A soft drink company supplies drinks to informal business to sell. Which business sector will
- (i) the seller come under the Informal
- (ii) the soft drink company comes under the Formal
- (iii) Informal sector is outlawed, can the soft drink company be charged. Explain your answer
  - No. It is registered by law and it's formal business
- (c) List down at least five (5) items rated as illegal products sold by the informal businesses:
  - (a). Out-dated goods
  - (b). Stolen goods
  - (c). Drugs
  - (d). Fake goods
  - (e). Black market sale of beer after hours

**REVISE TOPIC AND DO TOPIC TEST IN YOUR ASSESSMENT BOOK 1** 

# **TOPIC 2**

# **GOVERNMENT AND BUSINESS**

#### TOPIC 2: INTRODUCTION



Welcome to Topic 2- Government and Business. This topic covers areas such as the economic framework that the government has put in place to generate the income that will be used to run the country. You will study the framework itself, the regulation and laws in place and areas that the government sees too important to leave in the hands of private entities to provide. As a young and developing country with a growing population the demand for services is increasing, so the government has to make some adjustments on its service provision. Since the idea of privatizing has surfaced, some of the essential services which were formally provided for by the government have now been privatized. Some are provided for as joint partners in a controlled mannered in-line with the gross domestic product in the country.

#### **Lesson 5:** Economic Framework

Involves defining Economic Framework, its importance to the economy of the country. You will study the areas the government tries to improve and protect for the sake of having a workable economic framework. The government also plays its part to help trade by hosting trade promotion activities within the country and overseas.

#### Lesson 6: Government Regulation of the Private Sector

Involves defining private sector and identifying the regulations on trade, analyse them, and discuss areas where they are helping the people and where they are not.. You will identify organizations that are put into place to take care of irregularities in the process of providing goods and services. With the global movement of people looking for better or even just opportunities the government has an upper hand on how business is to be done in the country.

#### **Lesson 7: Government Department and Statutory Bodies**

Involves the study of the government as an important partner in the provision of goods and services. You will see how the state as an entity provides goods and services and also identifies all the statutory bodies and also how well or poorly they are doing.

#### **Lesson 8: Joint Ventures**

Involves the government joining forces with the private entities in developing Papua New Guinea's land resources from small to medium, even large levels to conduct businesses. You will study the advantages and disadvantages of joint venture activities.

#### Lesson 9: Public Enterprising and Privatisation

Involves defining public enterprising and stating its importance. You will also study the functions and reasons of privatization plus its advantages and disadvantages.

#### **Lesson 10: Non-Profit Organisations**

Involves defining non-profit organisations, give examples of non-profit organisations operating in Papua New Guinea. You will also state the roles and functions they play in our society plus the advantages and disadvantages of running a not for profit organization.

# Lesson 5: Role of Governments in Providing an Economic Framework



#### Introduction:

Welcome to the fifth lesson in Grade 9 Business Studies. Your previous topic was on Business Units and you have already learned that our country PNG has a Mixed Economy. This means businesses are run by both the private and public sectors of the economy. In this lesson, you will learn about businesses, particularly on how the government helps business to operate in the country.



#### Your Aims:

- Define economic frame work and discuss its importance.
- Identifies the areas of the economic framework
- Discuss how the government helps to promote and assist businesses.

#### What is an Economic Framework?

It refers to the government services which help businesses to operate efficiently. It is done by:

- Providing economic infrastructure
- Developing a healthy, educated and skilled labour force
- Creating a favourable economic climate

#### Importance of the Economic Framework

The government plays an important role in the economic framework of Papua New Guinea. They build and maintain infrastructure such as roads, bridges, and wharves put rules and regulations for doing businesses, keep law and order under control and have systems in place to regulate all economic activities. The government tries its best to make the conditions in the country favourable to carry out economic activities for all the investors, businesses, individuals and donors. All these will enable and make easy delivery of goods and services by the government.

The taxes are collected by the government for the use of these infrastructures. In return, it uses the money to continue providing such services to its population.

#### **Economic Infrastructure**

Infrastructure refers to roads, airports, harbours and buildings such as factories, hospitals and offices. Much of this infrastructure is provided by the government.

Government departments are responsible for providing and maintaining this infrastructure. For example, the government through the Works Department is responsible for maintaining roads.



Bridge- an important infrastructure

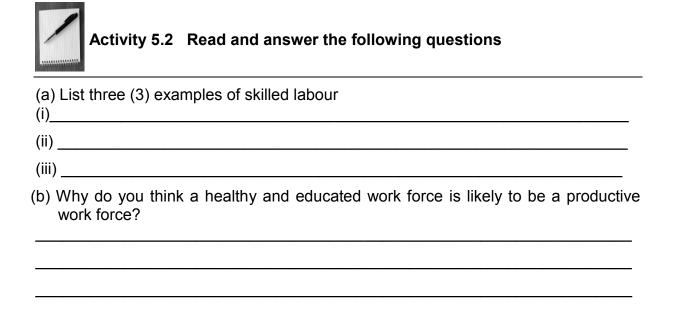


Activity 5.1 Read and answer the following questions

	Give four (4) examples of economic infrastructure
(b)	Give two (2) examples of an infrastructure which the private sector might provide.
Αŀ	lealthy and Educated Workforce

The government aims to create healthy and educated workers, so that the workforce is more productive. Businesses will not have to look for skilled labour overseas, if our own workforce is healthy and educated and skilled.

The government spends a lot of money on both health and education. The Education Department for example, spends more money than most other government departments. Yet, there are many youngsters in the country without proper education. Although there are many schools, there are still not enough for many children who want to be educated.



#### A Favourable Economic Climate

Economic conditions need to be right for businesses to operate. The tools the government uses to control the economy of the businesses are as follows:

(1) Inflation – is the general increase in the price of goods and services. If there is high inflation, businesses will find it difficult to operate. Their costs will keep rising and they will raise their prices, as a result the public may buy less of their

products. Therefore the government through the Independent Consumer Competition and Commission (ICCC) controls the prices of goods and services so that businesses can effectively provide them.

- (2) Value of Kina the government through the Central Bank manages the value of kina. It makes sure that the value does not become too low or too high. If the kina drops in value, the imported goods, value or cost will rise.
  - Firms which need imported supplies will have higher costs as a result. Many firms will also suffer if the kina becomes too high in value. Imports will become cheaper than the locally produced goods. Local firms will go out of business because they will be unable to compete against cheaper imported goods.
- (3) Interest rates (interest is the cost of borrowing money) The government through the Central Bank makes sure that interest rates are low to allow businesses to borrow money when they need it. However, sometimes the government may request interest rates to rise. This is to stop many people from borrowing otherwise inflation will result. Inflation is bad for business, as well as for the general public.

Therefore the government tries to create the right conditions to allow businesses to operate successfully. To do that the government must plan accordingly on how to spend its money. This is called a budget. The government obtains money to pay for its spending plans in three main ways:

#### **Taxation**

Most businesses and workers pay tax. The government also charges tax on imports-It is called import duty.

#### **Business must:**

- Pay taxes on their profit or net income
- Collect taxes from the workers they employ and give to the government
- Pay sales taxes if they are required.

#### Aid

The National government receives aid in the form of grants and soft loans. Grants are the sum of money given free of charge. Papua New Guinea receives a large sum of money from donor countries like Australia. Soft loans may also be used to finance the budget- these are loans with a low rate of interest.

#### Loans

The government also obtains ordinary commercial loans from banks here and overseas. The interest paid on these loans is higher than that charged for soft loans.



## Activity 5.3 Read and answer the following questions

(a) Explain the effect of inflation on prices of goods and services

(b) Explain what will happen to the living standard of people as a result of inflation?

(c) What are soft loans?		

Let us now discuss how the government tries to help promote businesses.

#### **How the Government Helps to Promote Businesses**

The government tries to help businesses in different ways. This is in addition to providing economic infrastructure which allows them to operate. The government has introduced measures and has set up bodies to help businesses to be successful.

Some examples of the ways in which the government has helped to promote business activities are:

#### **Business Development Officers**

These officers give guidance to people setting up or running a business. This includes giving advice and helping firms with their accounts. They also help firms prepare bank loan applications.

#### The National Development Bank

The National Development Bank Provides loans at low rates of interest to people in agriculture and other small business activities.

#### **Government Loan Guarantee Scheme**

This scheme encourages commercial banks to lend money to businesses. The government guaranteed repayment of (80 percent) of the loan even if the borrower does not repay the money. This scheme however; has not worked successfully. Borrowers often feel they do not have to repay that part of the loan guaranteed by the government.

#### **Extension Officers**

They are employed by the Department of Agriculture and Livestock to give assistance to farmers. They give advice, for example, on how to grow crops and how to raise livestock.

**Tax Exemptions** (period of no taxation: a period during which a company is excused from state taxation, e.g. when just starting out in business) allow some firms a grace period from paying tax for a period of time. The businesses are given time to establish themselves. Firms that are given tax exemption include:



**Extension Officers** 

- Businesses that export particular kinds of goods
- Firms setting up in a remote areas of the country

- Certain foreign firms that have just arrived in PNG

Trade Promotion is offered by the government to firms that export produce to other countries. The government also helps firms to take part in trade fairs. At trade fairs, products from different countries are displayed to interested customers.

Remember a favourable economic climate is good for the country's economy. It basically makes people happy because there is economic growth.



#### Activity 5.4 Read and answer the following questions

(a) List three (3) ways in which the governr	nent helps to promote business.
(i)	(ii)
(iii)	

#### **Direct Government involvement in the economy**

The government is directly involved in running certain commercial activities. Following are examples of main activities:

#### **Airlines**

Air Niugini runs an airline service, both within the country and abroad. It competes with Air lines within the country.

#### **Electricity**

PNG Power provides electricity to both private individuals and organisations throughout the country. PNG Power is a **monopoly**- it has no competitors. It is the only organisation providing electricity within the country.

#### Post and Telecommunications (Telikom)

Post and Telecommunications (PTC) provides a post and telecommunication network throughout the country. It provides telephone services and other services such as sending of telegrams and faxes. PTC is a monopoly.

#### **Papua New Guinea Ports Corporation**

The Harbours Board (PNG Ports) is the country's Port Authority. It is responsible for running and maintaining all ports in the country. It keeps port facilities in good condition to allow boats and ships to load and unload cargo. This body runs all the ports in the country. There are a total of nineteen ports in the country that PNG Ports look after.



**PNG Power Office** 

#### The National Superannuation Fund

The National Superannuation Fund (NASFUND) is a pool of funds granted and licensed under the Superannuation Act by the Central Bank (BPNG) the mother of all

the banks. It is the successor entity of what was formally known as the National Provident Fund and was incorporated as a company in May, 2002.

Its membership is mainly workers from the private sector, government owned corporations and statutory bodies.

The National Superannuation Funds' (NASFUND) primary role is to provide it's members financial protection at retirement, loss of employment, death, disability to work or the normal fortnight income has stopped. For the fund to increase the savings of its members it has to invest their money in a number of assets with high returns annually.

Inflation is one thing the fund is cautious about when investing members' savings. They use their investment guidelines to make sure they achieve maximum benefit.

The National Superannuation Fund (NASFUND) has several other products available to its members. The main ones are National Contributors Savings and Loan Society (NSCL), EDA SUPA, Retirement Savings Account (RSA). It tries to be the best fund provider in Papua New Guinea.

The fund is governed by a Board of Directors, consisting of seven (7) shareholders representatives and three (3) independents.

Each of the organisations listed above is run by statutory authorities. Statutory authorities are set up by the government under the Act of Parliament. Their role is to run certain activities along business lines. Government departments do not directly control them. They are run by board of members, but the Parliament has overall control of their activities.

Remember the government collecting taxes is very important. All the different types of businesses including their employees all must pay tax to the government. That is why most of the government's revenue comes from taxation.



# Activity 5.5 Read and answer the following questions

1. Give four (4) commercial activities that	the government is directly involved in.
(i)	(ii)
(iii)	_ (iv)

**Summary:** 



You have come to the end of Lesson 5. You have learnt that,

- The government provides a framework which helps businesses to operate through the following ways;
  - Provide economic infrastructure like good roads, bridges etc.
  - Developing a healthy, educated and skilled labour force that is productive
  - Creating a favourable economic climate where conditions must be right in terms of inflation, value of Kina and interest rates.
- It is the responsibility of the government to develop and promote the commercial activities which will benefit the economy and its citizens.
- There are different ways in which the government tries to help promote businesses.
- The government is also directly involved in the economy by running certain commercial activities like the airlines, electricity and telecommunications.
- The commercial activities that the government operates are mainly monopolies.

NOW DO PRACTICE EXERCISE 5 ON THE NEXT PAGE

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# **Practice Exercise 5**

State the one function of Independent Consumer Competition and Commission (ICCC)
2. Define the following terms in one sentence;
(a) Inflation
(b) Monopoly
3. Explain why the government tries to control; (a) the value of the Kina rising?
(b) the interest rate falling too low?

NOW CHECK YOUR WORK. ANSWERS AT THE END OF TOPIC 2

GR9 BS U2 49 TOPIC 2 LESSON 6

# Lesson 6: Government Regulation of the Private Sector



#### Introduction

Welcome to lesson 6 in Grade 9 Business Studies. Your previous topic was about Economic framework and you have learnt that the government provides a better way which helps businesses to operate efficiently. The government does this by providing economic infrastructure, developing a healthy, educated and skilled labour force and creating a favourable economic climate.



#### Your Aims:

- Define private sector
- Explain the importance of the government regulation on the private sector
- Identify the government's regulations of the private sector.

#### What is the Private Sector?

The private sector basically refers to privately run businesses. They are owned and operated by individuals or shareholders. The government is not directly involved in running these businesses; instead it regulates how they should operate.



SP Brewery-Private Sector

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ı	1	
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ı	1	- 3
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#### Activity 6.1: Read and answer the questions.

(a) Write down five (5) examp Guinea	les of privately run b	ousinesses operating	in Papua New
(i)			
(ii)			
(iii)			
(iv)			
(v)			
\-/-			

#### **Government Regulation of the Private Sector**

Many people now believe that the government should not be directly involved in running business activities. Its main role should be to regulate or control private businesses. It should regulate firms to make sure that:

- Goods and services are produced which are safe for the general public

- Firms do not harm the environment in which they run their businesses
- Prices charged are not too high
- Workers' rights are protected
- Firms pay the right amount of taxes

**Regulate** means to organise and control an activity or process by making it subject to rules and laws.

#### Registering a Business name

There is no need to register a business name if the owner is using his or her name. However, any other name must be registered, this is according to the *Business Names Act*.

#### **Business Registration**

Every business operating in Papua New Guinea, whether it is big or small, must be registered. In many cases, businesses are required to register with local authority. In the event that you do not register your business, it will be termed as operating illegally which is against the law. In such cases you are likely to be charged. Registration forms should require the following information:

- Name of business
- Names of the persons controlling the business
- Location of the business
- Details of the activities carried out by the business

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#### Activity 6.2: Read and answer the questions.

(a) Explain the term "business	s name".
(b) Provide three (3) names of	f well-known businesses operating in our country.
(i)	(ii)
(iii)	

#### **Licensing Regulations**

Retail stores must have licence to trade. This includes tucker shops, trade stores and supermarkets. In addition, a separate licence must be obtained in order to sell certain items. These items include meat, liquor, firearms, petrol, medicine and insecticides. Before a trader can be granted a licence, his or her premises must first be inspected. Inspectors of trade premises ensure that operating conditions pass the health regulations. This is to make sure that:

- The health of consumers who buy food is not at risk
- Employees are working in safe and healthy conditions



Sample - Retail Store

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# **Town Planning Rules**

Businesses must obey town planning rules in urban areas. These are regulations which control the development of land for different purposes. For example, some land is set aside for industrial and / or commercial use. Other areas may be for residential use. In such areas no business activity may take place in a residential area.

Activity 6.3: Re	ad and answer the questions.
	s of retail stores operating in your area
	(ii)
	(iv)
(b) List the names of fou	ır (4) items that require a separate licence in order to sel
(i)	(ii)
(iii)	(iv)
surrounding area. For ex into rivers because it ki Planning Act tries to limit companies whose activit prepare an <b>environment</b> will try to limit or prev	then industrial activity causes damage or harm to the cample, poisonous industrial waste should not be dumped alls fish plus other marine resources. The <i>Environmenta</i> it the amount of industrial pollution. This law is aimed at ties may harm the environment. Such companies must al plan. This plan will contain details of how the company ent pollution from taking place. In the event that the repared, the company will not be allowed to operate.
Activity 6.4: Re	ad and answer the questions.
the environment when car	s of businesses or companies that you think are polluting rrying out their business activities.  (ii)
(iii)	(iv)
(b) Explain briefly what en	vironment refers to?

#### **Price Control**

All retail shops must obey price control regulations when fixing the price of their goods. The price controller's office sets limits on the amount that retailers may charge for many types of goods. Most of these goods are essential items. These essential items are the basic food items and if priced too high will make the people go hungry and eventually die. The price controller's office does not fix a maximum price for goods which retailers must charge. Instead, it decides on the maximum mark-up a store may add to the landed cost of store goods. The landed cost into store covers the cost price, plus transport costs.

Let us consider an example.

The cost price of a loaf of bread is 50 toea and the transport cost is 5 toea. The landed cost is therefore 55 toea. The mark-up allowed for bread is 11%.

Therefore the **controlled price** of a loaf is:  $55 + (55 \times 11/100 = .61 \text{ toea} \text{ (rounded up)})$ 

The controlled price is the price that should be charged as laid down by the price control regulations.

Remember, all retail stores must have a licence to trade in order for them to operate in the country. Without a licence to trade it is considered illegal.

Below are a list of price controlled goods and the retail mark-up permitted.

#### A LIST OF PRICE CONTROLLED ITEMS

Number	item	Allowed retail mark up
1	Aerated waters	14.5%
2	Battery- radio & torch	26%
3	Bread	11%
4	Butter	13.5%
5	Cigarettes	13%
6	Flour	11%
7	Potatoes	50%
8	Footwear- rubber & plastic thongs	26%
9	Cigarettes (maximum price)	13 % (approx.)
10	Meat canned corned beef	11%
11	Margarine	11%
12	Infant`s food	13.5%
13	Breakfast cereals	13.5%
14	Fish- tinned Mackerel	11%
15	Beer (maximum price)	13% (approx)

The percentage mark-ups listed are for goods purchased by retailers, from wholesalers, within Papua New Guinea. Stores are allowed a higher mark up if they import goods directly from overseas or if they purchased goods directly from producers or manufacturers.

Price controlled items are usually dearer in remote places. This is because transport cost is higher. This causes the landed cost to be higher. There is a maximum price

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fixed for beer and cigarettes; but this maximum will also be higher in the more remote areas because of higher transport costs.

Remember Price control is very important in the economy. If the prices are not controlled, and prices on essential items will be expensive and some people will not afford these essential items.

Activity 6.5: Read and answer the questions.
(a) Give two (2) reasons why it is important to control prices of goods and services
(i)
(ii)
(b) What is the allowed retail mark up for;
(i) bread, butter, flour, potatoes, meat
(c) Explain why you think the mark-up for potatoes is so high.

#### **How Price Control is enforced**

There is Independent Consumer and Competition Commission (ICCC) office or agent located in most urban areas in Papua New Guinea. There are price control inspectors attached to each of these offices. Their job is to check retail stores in their area to make sure that there is no overcharging. The prices of all price controlled goods must be displayed. If shop owners are found to be overcharging, they will be told to reduce their prices. They will be fined if they continue to overcharge goods. Price inspectors are supposed to make regular visits to stores to check on prices. They may also visit stores if they receive complaints about overcharging.

#### The Goods Act

The Goods Act is a law to protect consumers if they are sold goods of poor quality. What should you do if goods are, for example rotten or broken? You should first of all complain to the store where the goods were purchased. They should ask for the goods to be replaced, or ask for a refund of money. If the store is not willing to help, the customer should go to the local Independent Consumer and Competition Commission office, if there is one in the area. The Independent Consumer and Competition Commission will help in Port Moresby. Officers from the commission should then investigate the matter.

If you buy goods which are underweight or short measured, you can get in touch with the Standards Division of the Department of Trade and Industry, operating under National Institute of Standards in Industrial Technology (NISIT)



# Activity 6.6: Read and answer the questions

(a) Give the name of the organisation that is responsible for controlling the price.

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(b) State the law that protects you as a consumer when you are served goods of poor quality.
(c) Which organisation should you consult when you are sold goods of poor quality?
Summary:

You have come to the end of Lesson 6. You have learnt that

- private sector businesses are owned and operated by individuals or shareholders.
- the government's main role should be to regulate or control private businesses to make sure
  - goods and services produced are safe for the general public
  - firms do not harm the environment in which they run their businesses
  - prices charged are not too high
  - workers' rights are protected
  - firms pay the right amount of taxes
- all businesses whether big or small must be registered to operate in the country
- the environmental plan is important in order to minimise environmental pollution
- all retail shops must obey the price control regulations when pricing their goods
- price control inspectors attached to the Independent Consumer and Competition Commission (ICCC) usually carry out inspections on prices charged on goods
- there is a law that protects consumers if they are sold poor quality goods and that law is the Goods Act.

NOW DO PRACTICE EXERCISE 6 ON THE NEXT PAGE

GR9 BS U2 55 TOPIC 2 LESSON 6



# Practice Exercise 6

Explain private sector in your own words and provide one example.	
2. Give one (1) reason why it is important to register all the business operating in the country.	
3. Explain these two (2) laws;	
(i) The Environmental Planning Act	
(ii) The Goods Act	
4. Provide two (2) reasons why it is important to control the price of goods.  (i)	
(ii)	
5. Explain why it is essential for retail stores to obtain a licence to trade?	

NOW CHECK YOUR WORK. ANSWERS AT THE END OF TOPIC 2

GR 9 BS U2 57 TOPIC 2 LESSON 7

### **Lesson 7:** Government Departments and Statutory Bodies



#### Introduction:

Welcome to our new topic "Government Departments and Statutory Bodies". In the previous lesson you covered government regulation of the private sector. You looked at ways the government regulates it and some of the goods and services that it controls for the benefit of the whole population.



#### Your Aims:

- Describe the government as a business and state its role in businesses
- Define Government Departments and statutory bodies and state examples.
- Discuss the work of the government departments and statutory bodies to promote businesses in Papua New Guinea

#### **Government and Businesses**

The Government of PNG plays a huge part in the national economy. Without the government's assistance and influence the national economy will not function properly. The Government owned businesses are called Statutory Bodies. Statutory bodies are run and controlled by Board of Directors appointed by the National Government. The National Government has the final control over these businesses. All profits generated from these operations of these businesses belong to the National Government.

Since **privatisation** of state owned businesses in the 1990's, some of the statutory bodies were incorporated as companies. Privatisation means to take out of government control and transfer to private ownership an economic enterprise or public utility that has previously been under state control. This has resulted in the government having less control. Today the National Government is only a shareholder in most of these enterprises.

Below are some of these statutory bodies of the government. Most of them have changed their names after they were incorporated as companies.



#### Air Niugini

Air Niugini is a National Government owned Airline Company that was incorporated under the National Airline Commission Act of 1973. It is the first level Airline Company operating in our country. It operates airline services on both domestic and international routes. It also competes with other airlines such as Qanta's of Australia, PNG AIR and others. Air Niugini has several Boeing Aeroplanes operating on international routes. It also has a number of Fokker 100 as well as Dash 8 aircrafts, serving it domestic routes. The company is controlled by a Chief Executive Officer (CEO). It has a history of making profits each year.



#### Telikom

This is the business that provides telecommunication services. It was formerly known as Post and Telecommunication, it is currently the single largest telecommunication company in the country. As part of its operation, Telikom PNG is responsible for all forms of post and telecommunication involving telephones, facsimile, mobile phone services, internet and email services. Telikom used to be the only service provider in the industry until Digicel a mobile company entered the mobile phone industry in 2006. In 2008, Telikom PNG and Digicel agreed to inter-connect. This has allowed customers of both companies to communicate with each other. However, Telikom PNG still maintains much of its monopoly. It is still in control of the international gateway that regulates all international telecommunication. The government being the major shareholder in Telikom PNG also regulates the telecommunication industry. It is still in control of the regulatory body known as National Information and Communication Technology Authority (NICTA). This body awards licences and monitors the activities of the telecommunication companies in Papua New Guinea.



#### **Water PNG LTD**

This is the Government's business arm established to control, regulate and manage its water resources in the country. This authority is responsible for ensuring that water is provided to all towns and some rural areas too. It collects the water bill on the basis of water usage. Because the government is the sole owner of this company it enjoys the profit made each year. This company is also responsible for looking after the sewerage system in some towns and cities. Where it is not present the responsibility falls in the hands of the town or Urban Authorities.



#### **PNG Power**

The PNG Power Ltd was previously known as Electricity Commission of PNG (Elcom). It is the primary generator, distributor and regulator of electricity in the country. It provides electricity on a fee paying basis to businesses, governments and individuals, etc. PNG Power continues to control the electricity market since there is no competitor in the country. It charges electricity bills based on the amount of electricity used as measured in kilowatts. The Government is still the major shareholder in this company. A Board of Directors is appointed to control the company. Profits made by the company are paid to the government as its owner.



# Activity 7.1: Read and answer the question.

1. Briefly write down the role of the following government departments.

Government Department Role/s	
(a) Air Niugini	
(b) Telikom	
(c) Water PNG LTD	
(d) PNG Power	

#### **Government's Assistance in Promoting Business Activities**

The government tries to assist businesses in different ways. The government has introduced measures and has set up bodies to help assist businesses to be successful. The government does this by providing:

#### 1. Business Development Officers

These people provide guidance to people who want to set up their own business. This involves giving financial information and assisting them with their loan application.

#### 2. Government Loan Guarantee Scheme

This scheme encourages commercial banks to lend money to businesses. The banks are guaranteed repayment of 80% of the loan even if the borrower does not repay the money. However this scheme has not been successful because borrowers feel that they do not have to repay that part of the loan guaranteed by the government.

#### 3. Extension Officers

This group of people are employed by the Department of Agriculture to give assistance to farmers. They give advice on growing crops and how to raise livestock.

#### 4. Tax Exemption

This means that some businesses will not pay taxes for a period of time. These businesses will include:

- Businesses that export certain types of goods
- Firms that are located in remote areas of the country
- Certain foreign companies that have just arrived in Papua New Guinea

#### 5. Trade Promotions

These promotions are offered by the government to firms that export produce to other countries. The government also help firms to take part in trade fairs in other countries. At trade fairs, products from different countries are displayed to interested customers.

Activity 7.2: Read and answer the questions.
<ul><li>(1) List and briefly explain two (2) ways in which the government assist business activities in the country.</li><li>(a)</li></ul>
(b)

#### **Summary:**



You have come to the end of Lesson 7. You have learnt that;

- The Government of PNG plays a huge part in the national economy.
   It promotes business activities of the country.
- The Government owned businesses are called Statutory Bodies.
- All profits generated from the operations of these businesses belong to The National Government since the Privatisation of State owned businesses in the 1990's, some of the statutory bodies were incorporated as companies.
- Examples of statutory bodies of the government include:
  - Air Niugini
  - Telikom
  - Water PNG LTD
  - PNG Power
- The government promotes business activities through
  - Business development officers
  - Government Guarantee Loan Scheme
  - Extension officers
  - Tax exemption
  - Trade promotions

NOW DO PRACTICE EXERCISE 7 ON THE NEXT PAGE.



# Practice Exercise 7

1.	Define the following key terms
(a)	Statutory bodies
(b)	Trade Fairs
(c)	Privatisation
(d)	Shareholders
(e)	What were these two companies previously called?  i. PNG Power
(f)	What happens to all the profits made by the statutory bodies?
(g)	Who is responsible for ensuring water is provided to all towns and some rura areas?

CHECK YOUR WORK. ANSWERS AT THE END OF TOPIC 2

#### **Lesson 8: Joint Ventures**



#### Introduction:

Welcome to our new topic "Joint Ventures". In the previous lesson you covered Governments and Statutory Bodies. The areas you covered include government as a business, the roles of the state in businesses and identified other business bodies too. Finally, look at the work that the government departments do to promote businesses in the country. This lesson is on Joint Ventures and:



#### Your Aims:

- Define joint venture and state the reasons why the government is involved in joint ventures
- Discuss how the government is involved in business activities through joint ventures
- Identify the advantages and disadvantages of joint ventures

#### **Joint Ventures**

#### What are Joint Ventures?

Joint ventures are formed when two or more businesses unite or come together because they have a specific business goal. The idea behind a joint venture is similar to a partnership type of business; the only difference is that joint ventures are formed for a specific purpose by an agreement. Joint ventures have a shorter time frame. They have the advantage of being easily created, maintained and dissolved whenever they decide.

In many developing countries like Papua New Guinea, the formation usually involves the government and businesses by a way of a contract agreement. The government is directly involved in business activities through joint ventures. The partners are expected to contribute the start - up capital, and they are entitled to the shares of the profit. The government is a joint venture in the following business operations:

- OK Tedi Copper Mine
- Pogera Joint Venture
- Misima Gold Mine
- Ramu Agro Industries ( sugar, palm oil and beef)
- Higaturu Oil Palm
- Ramu Nickel Mine
- -Tolukuma Gold Mine



# Activity 8.1: Read and answer the questions

(1) Identify and list five (5) joint ventures we have in our country Papua New Guinea and state the province where this Joint Venture is located. The first one has been done as an example for you.

Joint Venture	Province
Eg, Pogera	Enga Province
1.	
2.	
3.	
4.	
5.	

Let us move on to looking at the advantages and disadvantages of Joint Ventures.

#### **Advantages of Joint Ventures**

- 1. A Joint Venture is easy to set up
- 2. It also enables partners to put their resources and individual talents together
- 3. A Joint Venture does not have corporate tax (because it is like a partnership type of business)
- 3. Only partners pay separate tax
- 4. Partners in Joint Ventures can raise large sums of money as they need.

#### **Disadvantages of a Joint Ventures**

- 1. The life span of a Joint Venture is limited
- 2. Partners in a Joint Venture have unlimited liabilities

#### Why is the Government involved in Business Activities?

The government is involved in running certain business activities for the following reasons:

- Some services such as water, electricity and telecommunication are considered too important to be left to private firms. Private firms might be willing to provide these services only in areas where they can make a profit. They may be unwilling to provide these services in remote areas.
- It is better to have essential services provided by a government monopoly. A private monopoly may charge higher prices, as there would be no competition.
- The state can earn extra income by running profitable commercial activities. As a result fewer taxes need to be raised and less money borrowed.

However, there are reasons against the state becoming too involved in commercial activities.

- The state is less efficient than private firms.
- Private firms have a **monopoly** in providing certain services. It is believed that they can provide cheaper services than the government because they are likely to operate more efficiently. A monopoly is a situation in which one company controls an industry or is the only provider of a product or service
- In other countries state operated businesses, often result in failure and a waste of public money. In countries where the state has provided most services, the economy has done very badly. Inefficiency, bad planning and corruption have resulted. Papua New Guinea is facing this problem with its businesses. On the

other hand, the most successful countries have been those that the state plays a very small part in business.

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# Activity 8.2: Read and answer the questions.

(1)	State two (2) reasons why.
(a)	The state can run commercial activities
(b)	The state cannot run commercial activities

#### **Summary:**



You have come to the end of Lesson 7. You have learnt that

- The Government is involved in business activities through joint ventures.
- Joint ventures are formed when two or more business units unite or come together because they have a specific business goal.
- In many developing countries like our country Papua New Guinea, the formation usually involves the government and businesses by a way of a contract agreement
- The government is a joint venture in the following business operations:
  - OK Tedi Copper Mine
  - Pogera Joint Venture
  - Misima Gold Mine
  - Ramu Agro Industries.
  - Higaturu Oil Palm
  - Ramu Nickel Mine
  - Tolukuma Gold Mine
- There are good reasons why the government can and cannot operate commercial activities.

NOW DO PRACTICE EXERCISE 8 ON THE NEXT PAGE

1	Practice Exercise 8
1.	In what ways is the partnership type of business similar to a joint venture?
2.	What do shareholders gain when they buy shares from a business?
	List two (2) Advantages of a joint venture
(b)	Disadvantages of a joint venture
(4)	What does it mean to have a monopoly business?

CHECK YOUR WORK. ANSWERS AT THE END OF TOPIC 2

## Lesson 9: Public Enterprising and Privatisation



#### Introduction:

Welcome to the ninth lesson. In lesson number 8, you learned about Joint Ventures - the reasons why the government is involved in joint ventures, the activities involved and the advantages and disadvantages of joint ventures activities. This lesson is on Public Enterprise and Privatization.



#### Your Aims:

- Define public enterprise and privatisation and state their importance
- Discuss the functions of public enterprising
- Identify reasons why government has privatized its businesses
- Identify the advantages and disadvantages of public enterprising and privatisation.

# Public Enterprise

#### What is Public Enterprise?

Enterprise in its simplest definition or form is the work done by people who organise production- business. Therefore, public enterprise is another word for public company or business.

Public company or enterprise is like a proprietary company, but it is usually much larger. It is a type of business that has a separate legal entity, from its owner and shareholders and it is has Limited Liability. This means that the companies will only lose their contribution (cost of buying shares) towards the business if it fails.

It is public because the company may sell shares to the general public. People who start up companies are called promoters. Promoters will determine the number of shares that the company will own. People who contribute capital towards the starting of the company have the right to own part of the business. The people who buy shares in the business are called Shareholders. The profit that the company makes is then distributed to the shareholders in the form of dividend.



# Activity 9.1 Read and answer the questions below

(a) Write down at le	st four (4) examples of public companies or enterprises t	that
(i)	(iii)	-
(ii)	(iv)	_
(b) In two to three se	tences, state what you know about the term limited liability?	

#### The Functions of the Public Enterprise

The functions of the public enterprise are tasks or roles played in the business organisation. Here we will look at some of the roles businesses play in the business organisation;

- (a) Selling of shares to the general public
- (b) Employing workers
- (c) Pay dividends to the shareholders
- (d) Running of the company
- (e) selling goods and services to the public



## Activity 9.2: Read and answer the questions

(a) Write down the four functions of the public enterprises and companies.	
(i) (i	iii)
(ii) (	(iv)

Now in this part of our lesson we will cover the advantages and disadvantages of public enterprising.

#### Advantages and Disadvantages of Public Enterprising

There are advantages and disadvantages or in simplest form, good things and bad things about public enterprising.

#### **Advantages**

- Shareholders are not individually liable for debts of the company. They have limited liability.
- A company may have an unlimited life time of its own. This is because it has a legal existence, separate from its owner.
- Companies can raise large sums of capital on their own. Banks and other financial institutions prefer investing in successful companies.

#### **Disadvantages**

- Company tax is high
- Dividend for shareholders are subject to another tax called dividend withholding tax. Withholding tax is part of an employee's wage or salary held back and sent to the Internal Revenue Commission (IRC) by an employer in payment of taxes
- Companies have extra responsibilities as part of the requirement. It cost extra money to fulfil such responsibilities. Eg preparing the annual reports
- Companies can be penalized for breaching (breaking) the company Act (1997) if they are not careful. Because they are not keeping to the prescribed rules or laws in the Agreement.



## Activity 9.3: Read and answer the questions

(a) List down three (3) advantages and disadvantages of public enterprises or companies.

Advantages	Disadvantages

#### What is Privatisation?

Privatisation refers to the sale of state owned businesses to private owners. Governments around the world have introduced privatisation as an economy policy in the last ten years. Privatisation has changed the role of government world - wide. In Papua New Guinea, the national government's attempts to introduce privatisation started in the 1990s. The timeline below clearly shows the key dates and events in the history of privatisation in the country.

- \* In 1991 a privatisation policy was approved as part of the Structural Adjustment Programme. (SAP)
- \* In 1992, the government established the Papua New Guinea Holdings Corporation to lead the privatisation process.
- \* In 1994 the responsibility for privatisation was transferred to the department of Finance and Planning.
- \* In 1998 a Privatisation Council and the Public Enterprise and assets Management Authority were established.
- \* In 1999 the government created the Ministry Corporation and Privatisation.
- \* In 2000 the Privatisation Commission was formed to develop and implement the privatisation policy.

Privatisation in this country was first concerned with the sale of government owned assets to private owners. The private sector was invited to take over businesses previously under the government control. The sale of Papua New Guinea Banking Corporation (PNGBC) to Bank South Pacific (BSP) was an important sale under the government's privatisation policy. Its effects were felt nation-wide, BSP is owned by many different shareholders.



(PNGBC now BSP)

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The government is a shareholder in Bank South Pacific (BSP) .Below are some more examples with their names slightly changed after they were incorporated as companies.

- \* Air Niugini Ltd Air Niugini Ltd
- \* Telecom PNG Ltd Previously Post and Telecommunication
- \* Posts PNG Ltd Previously part of Post and Telecommunication
- \* PNG Ports Corporation- Previously PNG Harbours Board
- \* PNG Power Ltd Electricity Commission of PNG. (Elcom)
- \* PNG Water Board Ltd PNG Water Board Ltd

	Activity 9.4: Read and answer	the questions below	
` '	e at least four (4) state owned ternment's privatisation policy.	ousinesses that were privatised under the	
(i)			
(ii)			
privatisa	tion in the country. The first one ha	to show the dates and events in history of as been done for you as an example.	
<b>Dates</b> 1991			
(c) Write	down three (3) advantages and di	sadvantages of privatisation in the country.	
Advantages		Disadvantages	

#### Why Government has privatised its Businesses?

The key objective or reason of privatisation is to increase efficiency of governments. Furthermore, there are benefits in the privatisation. We need to look at or consider the benefits of the privatisation.

Privatisation benefits the country in many ways. The main advantage is that the government is no longer responsible for running its own businesses. Previously the government was criticized for running businesses instead of governing and providing services to the people.

The government is now able to better manage the economy rather than through management of businesses. It is also able to collect taxes from the private owners and provide services to the people. By selling its assets to private owners, the government has allowed competition to enter. Private owners know the best way to organise their resources effectively and compete with other businesses. Private ownership of businesses works to the advantage of private owners, consumers and the government. Private owners decide on the best way to operate businesses, while customers benefits through the effects competition.

Many private owners are the citizen of the country. Private owners create new job opportunities when their businesses expand or grow. International experiences show that privatisation brings benefits in the form of higher productivity, more investment and more jobs. There are results that some businesses in the past fail to achieve under government ownership. Let us consider the advantages and disadvantages of this privatisation process.

#### **Advantages and Disadvantages of Privatisation**

There are advantages and disadvantages or in the simplest form, good things and bad things about privatisation.

#### **Advantages of Privatisation**

- Allow competitions
- Businesses are now privately owned
- The Government is only responsible for governing and providing services.
- Create job opportunities.

#### **Disadvantages of Privatisation**

- Heavily taxed
- State owned assets are in the hands of a few (businessmen)
- Rich gets richer and poor gets poorer.



# Activity 9.5: Read and answer the questions.

(a) List three (3) reasons why governme New Guinea? (i)	ent has privatized its businesses in Papua
.,	
(ii)	
	·
,,,,,	
(iii)	
(b) Write down three (3) advantages an New Guinea.	nd disadvantages of privatization in Papua
Advantages	Disadvantages
(1)	
(2)	

Advantages	Disadvantages
(1)	
(2)	
(3)	

#### Summary:



You have come to the end of Lesson 9. You have learnt that;

- Public enterprising is another word for public companies.
- Public Companies allow people to buy shares and it is a separate legal entity, called Limited Liability.
- Public and Private partnership in business is good for Papua New Guinea's economy because it provides employment for its citizens
- Profit made by the statutory bodies go to the government.
- It is the sole responsibility of the National Government to provide infrastructure throughout the country.
- Foreign owned businesses operating in the country provide job opportunities and pay taxes to the national government
- Public companies can raise large sums of money because they are legal entities themselves
- Shareholders have limited liabilities
- Privatisation is the selling of state-owned businesses to the private sectors.
- Privatisation improves and increases efficiency in the running of business activities
- When state businesses are privatised the government can concentrate more on managing and governing the country's economy.
- Experience shows that privatisation brings high productivity, more investment and more jobs

NOW DO PRACTICE EXERCE 9 ON THE NEXT PAGE



# Practice Exercise 9

1111	
1.	What is public enterprise?
2.	Define privatisation
3.	Why did the government introduce privatisation policy in Papua New Guinea?
	<del>_</del>
4.	(a) List three (3) benefits of privatisation.
(i)_	
(ii)	· · · · · · · · · · · · · · · · · · ·
(iii	)

NOW CHECK YOUR WORK. ANSWERS AT THE END OF TOPIC 2

## Lesson 10: Non - Profit Organisations



#### Introduction

Welcome to Grade 9 Business Studies lesson number 10. In your last lesson you looked at Public Enterprising and Privatisation. This lesson provides basic information of what Public Enterprising and Privatisation is the kind of work they were involved in, when they started and when they concluded their task and how the country will benefit from its work. Lesson 10 is on Non - Profit Organisations.



#### Your Aims:

- Define Non- Profit Organisation and state its importance to the society
- Identify non- profit organisations operating in Papua New Guinea
- Identify how non- profit organisations help businesses in Papua New Guinea
- Identify the advantages and disadvantages of such organisations.

#### What is a Non - Profit Organisation?

It is an organisation that has been established and operates like any normal money making organisation but a Non- Profit Organisation is not for profit or in other words, Non - Profit Organisations are organizations which provides goods and services to the public just like any other businesses anywhere in the developing countries at .

## Who is part of the Non - Profit Organisation?

Under the umbrella of Non - Profit Organisation come Non- Government Organisation (NGO), Community Based Organisation (CBO), Faith Based Organization (FBO) and some using the founders names like Bill Clinton Foundation but all working to help the communities where they are located. These organisations come in many different sizes and shapes and specialize in a number of areas like;

- Social, health and human service agencies.
- Educational and research institutions
- Trauma counselling,
- Natural disasters
- Man made disasters
- HIV / AIDS
- Nature Conservation
- Religion
- Foundations
- Environment
- Poverty alleviation and many more.

Each organization through their network is able to source resource people who are willing to come and share their knowledge, skills, technical advice and help in the communities with capacity building, building relationships, sharing resources and just doing things in a sustainable way.

#### Importance of Non - Profit Organization

These organisations play a very important role in the civil societies by taking care of victims of natural and man -made disasters, mothers and children needing special treatment due to illness, counselling due to ignorance and situational circumstances. They respond very quickly even before government agencies that are responsible for such issues bringing normalcy due to their quick response due to their nearness to the victims. They can operate as long as they want sometimes in areas where government services are non – existent. They indeed have the heart to serve others.

However, good work is always noticeable and compensated, the government does provide limited funds for such organisations. Yes, many a time, they are using very scarce resources providing essential services which makes them really independent and value the things they receive such as money and goods. These organisations raise their own funds through member contributions, donour funding, and other fund raising activities.

Some of them have sister organisations that are in contact with them even from overseas, so assistance comes from them too. There are many recognised international organisations around the world that are linked to the Papua New Guinea Government and non-profit organisations in the country. Examples of international donour agencies include; Scholarship Papua New Guinea formally Australian Aid, Asian Development Bank (ADB), Japanese International Cooperation Agency (JICA) and New Zealand aid (NZ Aid). Privately owned charitable organisations such as Bill Clinton Foundation from the United States has been funding some health programmes in the country. Other well – known Non - Profit Organizations are;

No	Non - Profit Organizations	Areas of concern
1	Marie Stoppes	Woman/ child health
2	HOPEWORLD WIDE PNG	Health
3	IGAT HOPE	HIV/AIDS
4	RED CROSS	Blood
	World Vision	Health, Sanitation, poverty alleviation,
5		income generation
6	ADVENTIST DISASTER RELIEF	Natural/ Man Made Disaster
	AGENCY (ADRA)	Literacy
7	VSO	Business, health, literacy, education
8	Nature Conservation	environment
9	CARE	Health, literacy,
10	OXFAM	Health, literacy,
11	ST.JOHN	Social health and human service
		agencies
12	Digicel Foundation	literacy

1	
1	
1	-8
1	- 3

### Activity 10.1: Read and answer the following

(a)	What is the main difference between a non - profit organisation and a business?

(b)	Where do you think non - profit organisations obtain their funding?		

#### How are "non-profit organisations" different from for profit organisations"?

The **non-profit organisations** differ from **for profit organisations** in many ways and they come in many sizes and shapes. They are clearly distinguished from profit because of their access to volunteer labour, money especially grants and donations which give freedom to experiment with new public benefit programmes. Non- profit organisations do make an impact in the communities. They operate just like any businesses by employing people, purchasing goods and services, invest in buildings and equipment and supply goods and services.

#### What is the role of the non-profit organisations?

One of the primary roles of the non- profit organisations is connecting people with the resources also known as capacity building. Changes in the work, family structures, television and media including mobile phones, computers, women's roles and many factors have contributed to more awareness in social problems which are being addressed.

Non- profit organisations are great to have in the communities. Their presence and impact can be felt in many small and bigger ways too. Because of the simplicity of the organisation one needs to know how they operate and how the communities in appreciation of their services can assist them in their time of need too.

They are avenues for well to do businesses as a way of helping the communities and also lowering taxes to the government.

Advantages and Disadvantages of non-profit organisations as an organisation Non-profit organisations are in the communities providing much needed services. Their services must be appreciated by the communities because they are willing to help even when no assistance is by the government.

No	Advantages	Disadvantages
1	No taxes are paid because they provide humanitarian services	A lot of paper work is needed to set up not for profit organisation.
2	Have the ability to receive public and private donations for providing or doing social work	Legal costs can sometimes be very high
3	Protection from personal liability especially if there are debts to pay by the not for profit organisation	No pay for board of directors/no political influences
4	Organisational perpetuity protects the employees as individuals from liability for corporate debts or liabilities by the organisation	Its assets are transferred to another not for profit organisation when it winds up
5	Employees' benefits from life/ health insurance and pension plans.	A lot of time and energy is needed to grow the organisation's reputation
6	Corporate structures of forming a not for profit organisations is not easy but the documents regulating such are clear especially its vision and mission. It is clearly stated in the Article of Incorporation.	A nonprofit is dedicated to the interest of the public therefore its finances are open to public inspection.

Not for profit organisation as an agency providing goods and services.



## Activity 10.2: Read and answer the questions

(a) Make a list of the not for profit organisation that exist in your local area.			

Below is a list of advantages and disadvantages from the perspective of a non - profit organisation as a potential employing agent.

## Advantages and Disadvantages of non-profit organisations as an employer

No.	Advantages	Disadvantages
1.	One has the opportunity to work and contribute meaningfully	Wages are lower for employees
2.	More hands on experience and work is outcome based	Burnout (overworking) as one is expected to put extra hours
3.	There is flexibility on how work is carried out	Staff turnover is very high due to people leaving for better paid jobs else - where.
4.	A more casual work environment	Professionals who want to climb up in the organisation may find working not for profit organisations frustrating because they only operate to fulfil their mission
5.	One can have the opportunity to do several tasks and acquire new skills	Social change may be slow and unpredictable.
6.	One is given greater level of responsibility	Most not for-profit organisations depend on donors and volunteers to do the work needed
7.	There is potential for job advancement quickly	Seen only as a starting point of career minded professionals
8.	The spirit of team work is ever- present	The founders may find it difficult to leave or change certain things.
9.	Many generous benefits (health, insurance, school fees, recreation + others) from other organisations to compensate for the smaller pay check.	
10.	Non-profit organisations are sometimes the fastest to meet pressing and urgent needs	

#### **Summary:**



You have come to the end of Lesson 10. You have learnt that

- Not For Profit Organisations are like any other business organisations operating in the country under the banner\_Not For Profit Organisations
- Not for profit organisations in Papua New Guinea come under such names as; Non - Profit Organisation (NPO) Non- Government Organisation (NGO), Community Based Organisation (CBO), Faith Based Organisation (FBO) and some bear the names of their founding fathers. They all assist the government in bringing much needed services in the communities they serve.
- Not for profit organisations provide services in education, HIV/AIDS, environment, health, sanitation, literacy, poverty alleviation, sustainable living, and many more.

NOW DO PRACTICE EXERCISE 10 ON THE NEXT PAGE



# **Practice Exercises 10**

1.	Define 'Not for Profit Organisation'.
2.	Explain 'humanitarian services '
3.	Name three (3) of the main Not for Profit Organisations in your local area
4.	What is the main reason for having 'Not for Profit Organisations'?

NOW CHECK YOUR WORK. ANSWERS AT THE END OF TOPIC 2

# **ANSWERS TO**

# **TOPIC 2**

# **PRACTICE EXERCISES**

#### **ANSWERS TO PRACTICE EXERCISES 5-10**

#### **Practice Exercise 5**

- Healthy workers will be stronger and fitter. They will take fewer days off because of illness. An educated workforce will be more skilled and be able to carry out more difficult and complicated task than workers with less training and education.
- 2. (i) Inflation is the increase in prices of goods and services over a certain period of time.
  - (ii) Monopoly is a market condition where there are no competitors.
- 3. (a) rising too high

Imports will become cheaper than the locally produced goods. Local firms will go out of business because they will be unable to compete against cheaper imported goods.

(b) Falling too low

If the kina drops in value, imported goods will rise in value. Consumers will have to pay more to buy them.

#### **Practice Exercise 6**

- 1. The Private sector refers to privately run businesses where they are owned and operated by individuals or shareholders. The government is not directly involved in running these businesses. Eg Scarlet Taxis
- 2. It is important to register the business because once the business is registered; it will follow the rules put up by the authority, example paying taxes.
- 3. (i) Environmental Planning Act

The Environmental Planning Act tries to limit the amount of industrial pollution. This law is aimed at companies whose activities may harm the environment. Such companies must prepare an environmental plan.

- (ii) Goods Act
  - The Goods Act is a law to protect consumers if they are sold goods of poor quality
- 4. (i) It is important to control the price of goods because some retail shops may overcharge customers
  - (ii) Because of overcharging price on essential items, some customers may miss out on essential items.
- Retail stores must obtain a licence to trade from the respective authority in order to operate in the country. The licence to trade gives the business the authority to operate.

#### **Practice Exercise 7**

#### 1. (a) Statutory bodies

Government owned businesses that are controlled by the Board of Directors appointed by the National Government.

(b) Trade fair

Fairs that are held in different countries showcase different products produced by different countries to potential buyers

(c) Privatisation

The selling of state owned assets or companies to private individuals. Resulting in the government having less control over these companies.

(d) Shareholders

Different groups of people who invest in companies by buying the company shares

- 2. (a) PNG Power Electricity commission (Elcom)
  - (b) Telikom Post and Telecommunication (PTC)
- 3. All the profits made the statutory bodies are given to the government
- 4. Water PNG LTD

#### **Practice Exercise 8**

- 1. Joint Ventures are formed for a specific purpose by agreement. Joint Ventures have a shorter time frame. They have the advantage of being easily created, maintained and dissolved whenever they like.
- 2. Profits or dividends
- 3. (a) A Joint Venture is easy to set up
  - It also enables partners to put their resources and individual talents together
  - Joint Venture do not pay corporate tax ( because it is like a partnership type of business)
  - Only partners pay corperate tax
  - Partners in Joint Ventures can raise large sums of money as they need and want
- (b) Disadvantages of a joint venture
- the life span of a Joint Venture is limited
- all the profits are shared
- 4. A monopoly business is a business that has no competitors, it is the only type of seller a particular good or service, an example is PNG Power.

#### **Practice Exercise 9**

- 1. A Public company or enterprise is like a proprietary company, but it is usually much larger. It is a type of business that is a separate legal entity, from the owners and shareholders and it is called Limited Liability.
- 2. Privatisation refers to the sale of state- owned businesses to private owners.
- 3. The key objective or reason of privatization is to increase efficiency of governments.
- 4. (i) Create job opportunities
  - (ii) Allows competition to enter
  - (iii) Government concentrates only on governing and providing services to people

#### **Practice Exercise 10**

- 1. A non-profit organisation is an organisation that operates to provide basic goods and services in areas they exist which are needy and remote.
- 2. Humanitarian Services are services that meet human needs like shelter for an abused mother and her childrens' health.
- 3. Any of these or any local ones known; Marie Stoppes, HOPEWORLD WIDE PNG, IGAT HOPE, RED CROSS, World Vision, ADVENTIST DISASTER RELIF AGENCY (ADRA), VSO, Nature Conservation, CARE, OXFAM, ST.JOHN
- 4. To provide goods and services

REVISE TOPIC AND DO TOPIC TEST IN YOUR ASSESSMENT BOOK 2

# **TOPIC 3**

# **FINANCIAL INSTITUTIONS**

#### **TOPIC 3: INTRODUCTION**



Welcome to Topic 3- Financial Institutions. This topic teaches you the different Financial Institutions that operate in the country. Each Financial Institution provides various types of services to meet the needs of the general public. As technology improves and becomes a part of life so as Financial Institutions are updating the way they have been doing business in the past. You will also study the retirement schemes that have been set up in-order that those that exit from formal employment comfortably go back to the village

#### Lesson 11: Central Bank

Involves studying what a Central Bank is. Another name for the Central Bank is the Bank of Papua New Guinea. You will state its importance in the country and go through the policy and its operation too. Finally but not the least identify the functions and responsibilities of the Central Bank.

#### Lesson 12: Commercial Banks

Involves defining commercial banks, identify and list the examples and their operations in the country. You will also discuss their functions, goods and services they offer the general public. Some of the common ones will be looked at closely to see how they operate.

#### Lesson 13: Banking Services

Involves defining banking services, identify the different products and services they are providing. You will have a chance to see how they operate too.

#### **Lesson 14: National Development Bank**

Involves defining National Development Bank and the roles and functions it plays in the country as one the financial institutions.

#### **Lesson 15: Finance Companies**

Involves defining financial companies and provide examples of those that are operating in the country. You will also look at the roles they play in the economy of the country. Finally, you will identify avenues they obtain their finances.

#### **Lesson 16:** Savings and Loan Societies

Involves defining Savings and Loans Societies and identify what their aims are. You will also explain the functions and services they provide. Finally, look at ways of how Savings and Loans Societies are formed, managed and they provide services to their members.

#### **Lesson 17: Retirement Benefit Schemes**

Involves defining Retirement Benefit Schemes and their importance to people of Papua New Guinea. You will identify the different retirement benefit schemes in the country and what products are available for people to use. You will study ways of how employees can become members and be assisted during retirement. Finally, do some basic calculation on how the payout is calculated.

#### Lesson 11: Central Bank



#### Introduction:

Welcome to the eleventh lesson in Grade 9 Business Studies. In the last lesson, we learnt about Non-Profit Organizations—its definition, importance to society, identified non-profit organizations operating in the country and how they help people and businesses in the country. In this lesson you will learn about businesses in the country, their advantages and disadvantages. This lesson is on financial institutions. You will learn about the Central Bank, its monetary policy, how it operates and it responsibilities.



#### Your Aims:

- Define Central Bank
- Discuss the monetary policy and how it operates
- Identify the responsibilities of the Central Bank

#### What is the Central Bank?

The Central Bank is also called the Bank of Papua New Guinea. It was set up by the government after independence in 1975 and is located in Port Moresby. It operates very differently from commercial banks and other financial institutions. The Central Bank serves as the government's bank. It is controlled by a Board of Directors appointed by the government. Its profits are paid into public account, which belongs to the state. It takes no part in normal commercial activities.

Governments create central banks to perform a variety of functions. The functions actually performed vary considerably from country to country. The central banks serve as the government's banker.

It is the banker to the banking system and acts as the policymaker for monetary and financial matters. As the government's banker, the central bank acts as the repository (storage area) for government receipts, the collection agent for taxes, and the auctioneer for government debts. An Auctioner is person or firm doing a sale by bidding. It is a sale of goods or property at which intending buyers bid against one another for individual items, each of which is sold to the bidder offering the highest price.

It can also act as a lender to the government and as the government's advisor on financial matters. As the banker for the country's banks, the Central Bank Acts as the repository for bank reserves, the supervisor and regulator of banks. It also facilitates interbank services such as check clearing, money transfers, a lender when banks need money to honour, deposits and withdrawals plus other needs for liquidity.



Central Bank of PNG- Courtesy of Commerce and Development in PNG



## Activity 11.1: Read and answer the questions

(a) What is the other name for the Central Bank of Papua New Guinea?
(b) When was the Central Bank of Papua New Guinea established?
(c) Name the province the Bank of Papua New Guinea is located in.

#### Monetary Policy and how it operates

The Central Bank carries out the monetary policy of the government. That means it controls the amount of money in the country. It also controls the amount money that other banks lend to the borrowers. This control is very important for our economy.

The Central Bank can also use the monetary policy to increase the amount of money in the country. This is done mainly to encouraged people to spend more money on goods and services. The result of this would increase employment and production. In addition, the monetary policy, economic principles and programmes adopted by the government manages the growth of its money supply, the availability of credit, and interest rates.

As the country's monetary policymaker, the central bank controls the amount of credit and money available, the level of interest rates, and the *exchange rate* (the rate at which one nation's currency can be exchanged for another nation's). To achieve its monetary policy objectives, central bankers use a combination of policy tools.

For example, the central bank may increase or decrease the amount of money (coin and currency) in circulation by buying or selling government debt instruments, such as bonds, on the open market. This policy tool is known as open market operations.

Interest rates are usually related to how much money and credit are available in the economy. The central bank can lower interest rates by buying bonds from the public with money. This increases the amount of money in the economy and lowers interest rates. To raise rates, the authority would sell bonds, thereby reducing the amount of money available to the public. The central bank could also cause a lowering or rising of interest rates by increasing or decreasing the amount of money banks must hold as a reserve against their deposits. By increasing reserves, the central bank forces banks to hold more money in their vaults (strengthened room for valuables), which means they can lend less money. Less money available for loans makes loans harder to get causing banks and other lenders to raise interest rates on loans.

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Central banks can be either privately owned or owned by the government. In Europe, central banks are owned and operated by the government. In the United States, commercial banks own the central bank, which is called the Federal Reserve.

Because central banks control the money supply, there is always the danger that central banks will simply create more money and then lend it to the government to finance its expenditures. This often leads to excessive money creation and *inflation* (a continuous increase in the prices of goods), which can be caused by having too much money available to purchase goods.

# How does the Bank of Papua New Guinea put monetary policy into operation? It does so by controlling the commercial banks;

- the commercial banks may be asked to deposit a sum of money to the Bank of Papua New Guinea. As a result, the banks will have less money to lend out to public.
- the commercial banks may be asked to reduce their lending by a certain amount for example ten percent (10%).
- the commercial banks may be encouraged to raise or lower their interest rate. For example, if the government wants the public to spend less money, the banks will be encouraged to raise their interest rates. If the government wants the public to spend more, it will encourage the banks to lower their interest rate.

(a) Write to			answer tl				inea			
(1)			(	ог гар 	uaı	New Gu	iiica.			_
(b) Name operat	monetary	policy	that the	Bank	of	Papua	New	Guinea	puts	into

#### The Responsibilities of the Central Bank

The Central Bank plays important roles in the country. Below are some of the Central Bank's key responsibilities;

- it issues the nation's currency Kina and Toea.
- it controls the value of kina against other countries
- it handles the bank accounts of government departments. It is a government's bank
- it controls the transfer of money in and out of the country
- it keeps track of the country's public debt and arranges for these debts to be repaid
- it holds the country's reserves of gold and foreign currency. Every country holds a certain amount of foreign reserves, in gold and foreign currencies.
- it issues licences to gold buyers and other financial institutions
- it regulates and monitors all Savings and Loan Societies in the country.

Do activity 11.3 on the next page.

A of the site of A 2 and and an account the account to a
Activity 11.3: Read and answer the questions.  (a) List down three (3) responsibilities of the Central Bank of Papua New Guinea and explain them.
i)
ii)
iii)
Summary:



You have come to the end of Lesson 11. You have learnt that;

- The Central Bank is also called the Bank of Papua New Guinea.
- learnt that the Central Banks is the government's bank
- The Central Bank operates very differently from commercial banks and other financial institutions
- The Central Bank is controlled by a Board of Directors appointed by the government.
- The Central Bank carries out the monetary policy of the government. That means it controls the amount of money in the country
- learnt how the Bank of Papua New Guinea puts the monetary policy into operations
- The Central Bank's key responsibilities, like the issuing of the nation's currency Kina and Toea.

NOW DO PRACTICE EXERCE 11 ON THE NEXT PAGE



# **Practice Exercise 11**

1. What is the Central Bank?
2. Who owns and controls the Central Bank of Papua New Guinea?
3. Define Monetary Policy in your own words.
4. Give three (3) reasons why the Bank of Papua New Guinea carries out the monetary policy?  (a)
(b)
(c)
5. Explain in your own words, how does the Bank of Papua New Guinea put the monetary policy into operation?
6. What are the key functions of the Central Bank of Papua New Guinea? List at least five (5).  (i)
(ii)
(iii)
(iv)
(v)

NOW CHECK YOUR WORK. ANSWERS AT THE END OF TOPIC 3

#### Lesson 12: Commercial Banks



#### Introduction:

Welcome to lesson 12 in Grade 9 Business Studies. In the last lesson, you learned about the Central Bank, its definition, discussed the monetary policy and how it operates, and identified the responsibilities of the Central Bank. In this lesson, you will learn about commercial banks.



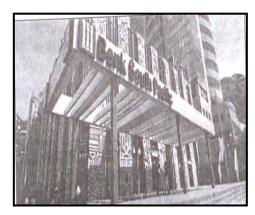
#### Your Aims:

- Define commercial bank
- · Identify commercial banks
- Discuss the functions and services of commercial banks

#### What are Commercial Banks?

They are banks that generally accept deposits, withdrawals, and give loans to commercial and industrial businesses. Commercial banks are owned by private investors, called stockholders, or by companies called bank holding companies. They are called business banks. The vast majority of commercial banks are owned by bank holding companies. (A holding company is a corporation that exists only to hold shares in another company.) Below is an example of a commercial bank.

Commercial banks are "for profit" organisations. Their aim is to make profit. The profits can either be paid out to bank stockholders or to the holding company in the form of dividends. The profits can be retained to build up capital (net worth). Commercial banks are companies which are in business to make profit for their owners or shareholders. They do this mainly by lending money to the public and charging interest. Commercial banks traditionally have the broadest variety of assets and liabilities.



Bank South Pacific - Port Moresby



### Activity 12.1: Read and answer the questions below

(a) Who owns commercial banks?

(b) What kind of organisation is the commercial bank?

(c) Why do commercial banks lend money to the public?

#### **Commercial Banks Operating in Papua New Guinea**

Commercial banks operating in Papua New Guinea are:

- Bank South Pacific BSP
- Westpac Bank PNG Westpac.
- Australia and New Zealand Banking Group ANZ.
- Kina Bank

#### **Functions of the Commercial Banks**

The Commercial Banks perform many functions. Their influence in the field of commerce is great indeed. Below are some of the important roles and services of the commercial bank. The commercial banks:

- Provide cheque system of making payments.
- Provide savings accounts in which people can deposit money and receive interest
- Lend money on overdraft and on fixed term loans.

An **overdraft** means that an account holder can make out cheques for more than the amount in his or her account. The limit or amount of the overdraft must be agreed upon with the bank in advance. Interest on the overdraft is calculated on a daily basis- that is it depends on how much money is borrowed at the particular time. A fixed term loan is a loan made by the bank for a set period – for example one year. Interest is payable on the total fixed loan.

- Provide a service which allows payment to be made for overseas trade transaction.
   They make it possible for individuals to transfer money out of Papua New Guinea by means of bank draft or a telegraphic transfer. They assist importers and exporters when bills of exchange and letters of credit are used to make payments.
- Issue travellers cheques. These cheques are similar to bank notes. They are issued in foreign currency and are used by people travelling overseas. They must be signed twice by the holder.

When they are first issued by the bank each cheque must be signed in the presence of bank officials. They must be signed again when cashing it at the bank or when purchasing goods. It is safer to carry traveller's cheques than cash when travelling overseas. On the right is an example of the travellers' cheque.



Sample Travellers Cheque



# Activity 12.2: Read and answer the questions.

(a)	lame three (3) commercial banks operating in the country.
(i)_	
(ii)_	
(iii)	
	State at least three (3) main functions of commercial banks operating in apua New Guinea.
(i) _	·
(ii) _	
iii)	

#### **Commercial Banks Provide a Number of Services**

One of the services provided by the commercial banks is to make direct transferring of money from one account to another account. For example, you may have to make a rental payment every month to your landlord, if you have a direct transfer arrangement, your bank will make this payment automatically, for you each month. If you obtain a job latter on, you are likely to receive your fortnightly salary by direct deposit. Your employer may arrange to have your salary paid directly into your bank account, every fortnight.

Another service is the safe custody of valuables and valuable documents. Banks are willing to keep valuable items in the safe on the bank's premises. A fee must be paid for this service.

Now we can look at the key benefits of the commercial banks operating in the country.

#### **Key Benefits of the Commercial Banks**

- (i) They have necessary resources such as capital to maintain their operation in the county.
- (ii) Their large branch network can enable banking services to reach many people in the country.
- (iii) They have the ability to respond to the customer needs, including the need of small businesses.
- (v) They have a lot of experiences in debt collection.



# Activity 12.3: Read and answer the questions.

What are two (2) important services provided by the commercial bank?	
List two (2) benefits of commercial banks.	

#### **Summary:**



You have come to the end of Lesson 12. You have learnt that;

- Commercial banks are owned by private investors, called stockholders, or by companies called bank holding companies.
- Commercial banks are "for profit" organisations. Their aim is to make profits for their shareholders.
- Commercial banks exist in Papua New Guinea.
- Travellers cheques are used instead of cash when travelling to overseas.
- There are different services provided by the commercial bank.
- There are many different benefits of the commercial banks.
- Overdraft and fixed loans are other ways that commercial banks help their communities.

NOW DO PRACTICE EXERCISE 12 ON THE NEXT PAGE



# **Practice Exercise 12**

What is a Commercial Bank?
State the main objectives of the commercial banks.
3. What is a Fixed Loan? Explain in your own words.
4. What is an overdraft? Explain in your own words.
5. Why do commercial banks charge fees to the customers?
6. Explain in your own words how a traveller's cheque is used in overseas travel?
7. What are the benefits of the commercial banks? List at least three.  (i)
9. What is direct payment or transfer? Explain in your own words.

NOW CHECK YOUR WORK. ANSWERS AT THE END OFTOPIC 3

GR9 BS U2 103 TOPIC 3 LESSON 13

#### **Lesson 13: Banking Services**



#### Introduction:

Welcome to Lesson 13. In your previous lessons you looked at the Central Bank and the various types of commercial banks. You also learnt about the different types of banks and their basic functions. In this lesson, you will continue to learn about banks and the types of services they provide.



#### Your Aims:

- Identify the different types of banking services that are provided by banks.
- Discuss the different types of banking services that are provided by banks.
- Describe the main purposes for these accounts.

#### **Banking Services**

As you have learnt so far, a bank is an organisation that deals with money and other types of financial activities. Banks provide banking services to consumers in various ways such as; providing savings accounts, telegraphic money transfers (sending and receiving money), cheque accounts and lending money. These services involve the use of bank accounts for depositing, withdrawing, saving money, paying bills and getting a loan to suit various purposes, such as buying a car or building a house. The common accounts that the banks have are cheque accounts, savings accounts, overdrafts and term deposits. Each of these accounts and services has specific purposes and functions. Bank customers must also pay fees to use these bank services.

Activity 13.1	Read and answer the questions below
---------------	-------------------------------------

) Write down three (3) reasons why people and businesses use bank services.	
)	
i)	
<b>/</b>	-

#### **Common Bank Accounts and Services**

#### **Savings Accounts**

The savings account is an account in which people can save their money and take it out at any time when needed. Savings accounts allow people to store (deposit) or take out (withdraw) using bank forms called deposit or withdrawal slips (forms). Saving money in a bank account earns a small amount of interest. Interest is a percentage of money that the bank pays an account holder for keeping money in the bank. Money can also be taken out from the bank using automatic teller machines (ATMs) and by electronic transfer called EFTPOS (Electronic Funds Transfer at Point Of Sale) using debits cards which are linked to the customers' account. Each customer is given a Personal identification number (PIN) to use with the card. The

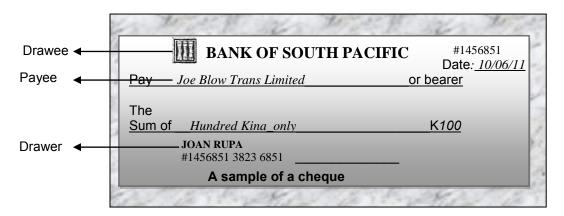
GR9 BS U2 104 TOPIC 3 LESSON 13

bank provides these services to make it convenient for the people to buy goods and services at any time of the day without having to physically go to the bank to withdraw money. Usually a small fee is charged for the service provided.

#### **Cheque Accounts**

Cheques are used commonly by businesses to pay for goods and services without using actual notes and coins. A cheque is a written instruction from the depositor to the bank to pay the person or business named on the cheque using money from the drawers account. That person or business can then deposit the cheque in another bank or cash it to receive the money it represents. Money can be deposited into an account using a deposit slip. A cheque account is used to pay bills, deposit and withdraw money.

There are three parties to every cheque that is written – the drawer, drawee and payee. The person who owns and operates the cheque account is the *drawee*; the bank that operates the cheque account is the *drawee*. The person who receives the cheque is the *payee*. Unlike savings accounts, cheque accounts do not earn interest instead the bank charges a fee on the cheque account. Bank cheques are more readily accepted than ordinary cheques. They are used in some cases for large payments, such as the purchase of a property. A bank cheque is issued by the bank – the bank is both the drawee and the drawer. There is no risk in accepting a bank cheque.





## Activity 13.2 Read and answer the questions below

λίι	e down two reasons why people should have bank accounts.
4115	
(b) Define	e the following; er
	ee
(iii) Paye	

#### **Loans, Overdrafts and Term Deposits**

Another common activity of banks is lending, or loaning money to people and businesses. People borrow money from banks (and other lending institutions)

for such things as a new house, a new car, school fees, or starting a business. Businesses borrow money to expand or to buy new equipment.

All types of loans fall under either secured or unsecured loans. A secured loan allows the lender some rights over the borrowers' assets so that when the loan is not repaid the bank can then sell these assets to recover the loan. An unsecured loan means that the funds are borrowed without the lender having any claim to the borrower's assets, meaning that when the loan is not repaid, the bank cannot sell the assets of the borrower to recover the loan. Loans are repaid in instalments, or amounts due at regular periods, such as once a month. Each instalment includes two parts: a portion of the loan itself, called the principal, and an amount of interest paid to the bank as a profit.

Banks are willing to lend money to those who have a means of repaying the loan. Borrowers are those who earn a regular income and have valuable assets that the bank can use to recover the loan in case the borrower is unable to repay the loan.

Types of loan include mortgage (housing loans) – a mortgage is a long term loan used to buy land or a house or any kind of building. It is the bank (lender's) claim over the building if the loan is not repaid, usually from 10 to 25 years. The loan is repaid in regular instalments for the term of the loan; personal loans, business loans, are all alike

Banks also offer term deposits or 'interest bearing deposits' (IBD) services to their customers. This service helps customers to keep their money in the banks for a specific period within which interest is added on, e.g. 2 years, 5 years, 6 months etc. Money saved in a term deposit will only be withdrawn when it matures or at the time specified. At any other time, withdrawals are not permitted.

Another service the bank provides is called an overdraft; this is when an account holder can make out cheques for more than the amount of money the account holder has in the account. The limit of the overdraft must be agreed with the bank in advance. Interest is also paid back with the amount.



#### Activity 13.3 Read and answer the questions below

(i)	
i) ii)	
b) Define the following words. i) Overdraft	
	· · · · · · · · · · · · · · · · · · ·


#### **Phone and Internet Banking**



Banks also provide other services called phone and internet banking. With phone banking customers pay their bills such as; water, power, telephone, transfer money between accounts, request bank statements, check bank balances by using the phone instead of physically going to the bank. Customers can also pay bills and

purchase goods and services and check bank balances online or through the internet. The internet is a worldwide connection of millions of computers connected to thousands of different networks referred to as the World Wide Web (WWW).

Customers who have access to these services are able to link up to the bank and do their banking requirements. Users of phone banking services are each given a special identification number and password so that no one else can access the user's personal account.

#### **Electronic Funds Transfer**

As we advance in this heavily technologized world, electronic funds transfer is fast becoming a common method of paying and receiving money via the use of debit and credit cards. Examples of debit cards are BSP Kundu card, Westpac Handy card and ANZ Access card.

Many people use this service to purchase goods and services without the need to carry cash. With debit cards payments are made immediately through electronic transfer of funds. With credit cards, goods and services are received but payment is made at a later date. Credit cards are used to make payments for goods and services instead of using cash. The EFTPOS machines currently used in Papua New Guinea can accept a number of credit cards such as VISA credit cards, Master Cards and American Express Card. The benefits of electronic transfer includes reduced paper flow, enhanced security, improved ways of handling cash and reliable cash transfer.

### The EFTPOS Process

The operator registers the sale and displays the total amount owing



The customer presents a plastic card (debit card) which is then inserted into an electronic card reader which extracts account from the magnetic strip located on the back of card

The customer then selects either Savings or Cheque Account before entering the total amount owing. Customers can also ask for additional cash at this stage

If the transaction is rejected, the corepeat the above steps, if it fails again the customer will be asked to pay for the goods by cash or cancel the transaction

If the PIN is correct and there are adequate funds in the customer's account, the transaction will be approved and a receipt issued

The customer then enters the Personal Identification Number (PIN) number and presses OK on the keypad

# Summary:



You have come to the end of Lesson 13. You have learnt that;

- Banks provide a variety of services such as savings and cheque accounts and various types of loans to suit individuals and businesses.
- Savings and Cheque accounts are used by people to deposit and withdraw money when needed.
- Banks also provide loans such as personal loans, mortgage, overdrafts, term deposits (IBDs) for consumers to use to purchase large items, pay school fees and pay back in small instalments over a period of time as specified by the bank.
- Banks also provide phone and internet banking which allows customers to link up to their bank accounts to do all their banking requirements without having to physically go to the bank and stand in a line or queue.
- Banks through businesses provide electronic transfer of funds (EFTPOS) to enable consumers to purchase goods and services and withdraw cash using debit cards that are linked to the bank accounts.



# **Practice Exercises 13**

1.	What are bank services?					
2.	List down six (6) examples of services provided by the bank; (i)					
	(ii)					
	(iii)					
	(iv)					
	(v)					
	(vi					
3.	How does a 'Cheque Account' function?					
4.	If you were to go to the bank to deposit money into your savings account, which bank form would you use?					

5. Below is a sample of a Withdrawal Slip; Use the following information to fill in the required details: John Green Blow has two hundred and fifty kina (K250.00) in his savings account with BSP bank. He wants to withdraw K100 on Friday 05<sup>th</sup> of May to contribute to his brother's bride price ceremony which will be held on Saturday. He does not have an ATM card so he must use the bank withdrawal form to witdraw money. The branch number is 21 and his account number is 1601239

Bank South Pacific	WITHDRAWA Teller Use		
LACE	Payment Specification	on Date	
Account (Tick appropriate box)	K100		
□Kundu Saver □Passbook □Achiever	K50		
Branch No. Account No.	K20	7 -	
Account No.	K10		
	K5		
	K2		
	Coins		
Account Name	S/ Total		
	Other		
	К		
Amount in Words	Final Balance		
	К	<u> </u>	
Tell	ler	<u> </u>	

Sample Withdrawal Slip - BSP

6.	What type of loan would you get from the bank if you wanted to:  (i) Buy a house?						
	(ii) Buy a truck after 5 years?						
	(iii) Pay school fees?						
	(iv) Go on a holiday overseas?						
7.	What services are accessed through phone banking?  (i)						
	(ii)						
	(iii)						
8.	List three benefits of the electronic funds transfer.  (i)						
	(ii)						
	(iii)						
9.	What is the difference between a debit card and a credit card?						

NOW CHECK YOUR WORK. ANSWERS AT THE END OFTOPIC 3

# Lesson 14: National Development Bank



#### Introduction:

Welcome to Lesson 14 - National Development Bank. In your last lesson you learnt about *bank services*. This lesson covered different types of bank services and credit facilities offered by the commercial banks. It included savings accounts, cheque accounts, debit and credit cards, electronic banking and payments and overdrafts.



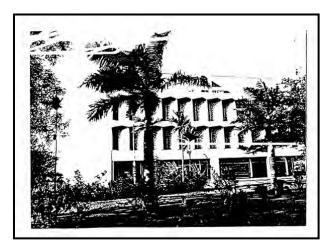
#### Your Aims:

- Define National Development Bank.
- Discuss functions and current products and services of the National Development Bank.

# What is the National Development Bank?

The National Development Bank was first established in 1967. Then it was known as the Development Bank of Papua New Guinea. The name changed to Agricultural Bank in 1984 and then changed to Rural Development Bank in 1993. In 2007, the Somare government changed its name again to the National Development Bank. Its head office is in Port Moresby and it has more than 20 branches nationwide with more branches to be opened soon. The more than 20 branches nationwide includes, Alotau, Bialla, Boroko, Goroka, Kavieng, Kimbe, Kokopo, Kundiawa, Lae, Madang, Maprik, Mendi, Mt. Hagen, Mutzing, Popodetta, Wabag, and Wewak.

The National Development Bank gets grants from the government's annual national budget. It also gets funding from international lending agencies like the World Bank and the Asian Development Bank.



National Development Bank Building in Port Moresby



Locations of the 20 National Development Bank Branches



# Activity 14.1 Read and answer the question below

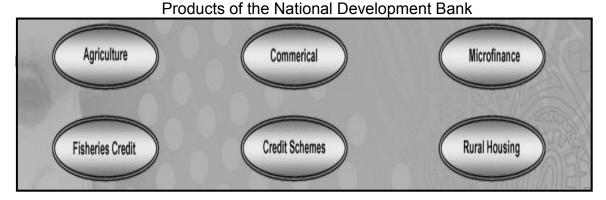
Research and find out why the name of National Development Bank keeps changing?

### **Purpose of the National Development Bank**

Its most important purpose is to provide citizens of Papua New Guinea with the easily available development assistance that will enable them to engage in income earning activities to improve the quality of their lives. Most of the citizens targeted are from rural areas where 80 percent of our people live.

# **Products of the National Development Bank**

(1) The National Development Bank is a very important institute to obtain capital for development purposes especially for the rural people in Papua New Guinea. Currently, it is offering a range of money lending-products that can be adapted to suit ordinary Papua New Guineans both rural and urban entrepreneurs with their business needs. These products are offered at competitive rates with emphasis on providing affordable and sustainable finance.



Source: http://www.ndb.com.pg/microfin.htm

There are loans for agriculture purposes and these covers such projects as, raising cattle, piggery, poultry, growing oil palm, coffee, tea, rice farming and vegetable farming.

Agriculture loans are given under three categories. These categories are;

- Small rural loans which are less than K10 000
- Microfinance loans which are small amounts between K300 to K5000
- Large rural loans which are greater than K10 000

#### (1) Commercial loans

Commercial loans cover for industrial and service business purposes. Here are some examples of areas where the loans are appropriate:

- Equipment Finance
- Purchase of Commercial Property
- Purchase of Fishing vessel
- Working Capital Facilities, eg. Purchase of stock

## (2) Microfinance loans

Microfinance loans are about small funds for people to set up their small income generating activities. The microfinance loans come under three categories:

### (a) Kisim – na – Bekim Bisnis Loan

With this loan, there are no savings required. You can get a loan from as low as K300 to K5000 to finance your small business. Appropriate arrangements will be made and you will pay every fortnight right in your village over a period of 6 to 12 months.

### (b) Tutu Bisnis Loan

With this loan, there are no savings required. You can get a loan from as low as K300 to K5000 to finance your poultry business. You will then pay in lump sum amount after selling the chicken.

### (c) All-Purpose Loan

With this loan, there are no savings required. If you are employed, you can get a loan from as low as K300 to K2000 to finance your household needs. Then, you will pay up in a maximum of 12 months.

The microfinance loans help people to realise their dreams of increasing their income sources and supporting their family needs. The three types of loans enable people to obtain funds to finance their income generating activities. It may be a small trade store, buying and selling, market vending, dress-making, poultry or any other small-scale economic activities with quick cash turnover.

People can borrow small amounts to finance their stocks and inventories or buy small equipment such as fridges, coolers, sewing machines or any small machines used to run your business.

To pay the loan, appropriate arrangements for repayments can be made in the village where the borrowers reside or conduct their business.

Having learnt about microfinance, you should not miss the opportunity. All you have to do is to contact the nearest NDB branch in your location and get in touch with a Microfinance Field Assistant. You can start running your own business and be your own boss! Their interest was reduced in 2013 down to just 6%.

### (3) Fisheries credit

In 2007, the Fisheries Credit Facility was established to assist coastal fisherman, inland fish farmers and fish exporters with easy availability of funds on commercial basis. Under this credit facility there are three lines of credit or funds to cater for the needs of almost every Papua New Guinean from the grassroots level to the local exporters.



Private Fishing

### (a) Micro-credit line

It aims to deliver small loans or funds to village based fishermen or enterprises that may not be able to obtain the money needed from the main stream financial institutions.

#### (b) Small Enterprise Credit-line

It aims to provide financial assistance to small fishing enterprises. In doing this, the small fishing enterprises can assist other small enterprises to strengthen their operations and become a new segment of small enterprises operating within the fisheries sector. Under this credit line, it is expected that the small fishing enterprises must promise to give some form of property or asset as security to the Bank to secure credit funds from the facility.

# (c) Business Credit line

Under this credit line, its specific aim is to target the established private fishing companies. It may also be extended to those individual members of the fisheries cooperatives or associations that have been successful and are expanding their operations or seeking to improve internal management.

# (d) Rural Housing

The Government's National Annual Budget gives the funds for Rural Housing Loans. The extent of allowing loans is limited by the amount given for each year in the National Budget. The loans are given for the purchase of building materials to construct or improve existing home in rural areas. The maximum loan term is six (6) years. Those who apply should show the ability to repay a maximum of 25% of the net annual income. One applicant who successfully applied for this loan must build the house in his/her village or permanent place of settlement in the rural area. There is also security taken to cover the loan. This means, the successful applicant must make it known to the National Development Bank about other properties or assets that he/she owns so that these things can be used as security for the housing loan he/she takes.



# Activity 14.2: Read and answer the question below.

(1) Name a project in your area that was started through a loan from the Development Bank	Nationa

Below are pictures of some of the projects and businesses for which the National Development Bank lends money either private-owned or government project.



All -purpose loan: Purchase Stock for your store



K100 000 for Central Province Fisheries Credit Scheme



The National Development Bank is proud to be a Green Gold sponsor of the PNG Coffee Festival 2008

### (1) Credit Schemes and Other Schemes

Credit schemes are careful plans of how money can be taken, used and be paid back later. The National Development Bank has credit schemes such as; Tourism Promotion Authority Credit Scheme, Women in Textile Credit Scheme and Fisheries Credit Scheme. The Fisheries Credit Scheme was discussed above so we will only discuss the other two and other schemes like the Small Business credit Guarantee Scheme.

# (a) Tourism Promotion Authority Credit Scheme

The Tourism Promotion Authority Credit Scheme is a partnership project between the National Development Bank and the Tourism Promotion Authority. This scheme helps to fund Papua New Guinean to develop and expand small to medium scale tourism projects in Papua New Guinea.

A minimum loan amount for this scheme is K1000 and the maximum amount is K200 000. Any larger amounts will require confirmation from the National Development Bank and the Tourism Promotion Authority.

### (b) Women in Textile Credit Scheme

The aim of the Women in Textiles Credit Scheme is to deliver small accessible credit to Papua New Guinean to participate in building and operating textile operations in Papua New Guinea.

The women helped in this credit scheme are those that may not necessarily have access to credit from the main financial institutions to assist them to engage in new business enterprises or cottage type income generating activities.

When the women are engaged in new business enterprises or cottage type income generating activities, they increase the cash income for themselves and their family. This enables them to improve their living conditions in their homes and the communities too.

There are terms and conditions that you should know when applying for a loan through the credit schemes. You can collect more information about the terms and conditions when you contact the nearest NDB branch in your location.

# (2) Other Schemes - Small Business Credit Guarantee Scheme

The Small Business Credit Guarantee Scheme was started by the Small Business Development Corporation, with the support of the National Government. Its main purpose is to assist and kick start small businesses that lack sufficient security. Whilst doing that, it aims to by- pass financial limitations that usually stop small enterprises to advance forward in expanding their business. It does this by providing a formal source of financing. It gives a maximum of 80% guarantee coverage on loans obtained by small enterprises from accredited financial institutions against the risk of failing. A maximum of 80% guarantee coverage means that the bank will provide this amount and you the customer, have to provide the remaining 20%. Furthermore, funds have been put aside for such activities by the government through this scheme so the money is available for people to use.

There are two types of Guarantee Funding provided under the scheme. The first one is considered under the Small Loan Guarantee scheme. Its loans range from K5000 to a maximum of K20 000. The second one comes under Medium to Large Guarantee Loan. Its loans range from K21 000 to a maximum of K60 000.

### **Services of the National Development Bank**

Let us now discuss the current services that are provided by the National Development Bank.

### (a) Insurance

The National Development Bank Insurance acts as an agent to all its clients. It ensures that the clients readily have access to insurance quotes and also there is a close monitoring through the loan products to pay and keep track of the insurance premiums.

### (b) Entrepreneur Development Training Centre Ltd (EDTC)

The National Development Bank has a partnership with EDTC to train potential borrowers. In this training, the borrowers are taught the skills and knowledge of how to establish, operate and manage businesses and projects. Expert advice is also given to them.

After this training, they can be used as resource people by the National Development Bank later and also become qualified to obtain loans from the National Development Bank.

In addition, in order for the borrowers to get a loan from the Fisheries Micro Credit Scheme and Other Credit Schemes, the bank uses this training as a requirement to enable the borrower to get the loan. In other words, if a client has already gone through this training then, he/she is qualified to get the loan. If not, then, the client is not qualified for the loan.



# Activity 3: Read and answer the question below

<ol> <li>In the future, if you want to start up a project for yourself, which lending product would be suitable for you? Why?</li> </ol>
, , , , , , , , , , , , , , , , , , , ,

### Summary:



You have come to the end of Lesson 14. In this lesson you learnt that:

- The National Development Bank is the development finance institute Bank of Papua New Guinea
- The National Development Bank is wholly owned by the Independent Public Business Corporation as Trustee for the State and people of Papua New Guinea.
- The National Development Bank was first established in 1967.
- It was first known as Development Bank of PNG. Then, it changed its name to Agricultural Bank in 1984 and again, it changed its name to Rural Development Bank in 1993. In 2007, the Somare government changed the name to National Development Bank.
- The National Development Bank gets grants from the government's annual national budget and from international lending agencies like the World Bank and the Asian Development Bank.
- The National Development Bank's main purpose is to provide citizens of Papua New Guinea with the easily available development assistance that will enable them to engage in income earning activities to improve the quality of their lives.
- The National Development Bank provides other services such as Insurance and Entrepreneur Development Trainings to its clients.
- The current lending products of the National Development Bank are: agriculture, commercial, microfinance, fisheries credit, rural housing credit schemes and other schemes.

NOW DO PRACTICE EXERCISE 14 ON THE NEXT PAGE

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# **Practice Exercise 14**

When and why was the National Development Bank established?
2. What were the National Development Bank's previous names?
3. How is the National Development Bank funded?
4. Write down the products of the National Development Bank.
5. Write down other services that the National Development Bank offers.

CHECK YOUR WORK. ANSWERS AT THE END OF THE TOPIC 3

# **Lesson 15:** Finance Companies



#### Introduction:

In lesson 14 you learnt about the National Development Bank. You learnt that the National Development Bank is the development Finance Institute of Papua New Guinea and its purpose is to provide citizens of Papua New Guinea with development assistance that will enable them to engage in income earning activities to improve the quality of their lives. You learnt that it fulfill its purpose through its lending products and services. In this lesson, you will cover finance companies.



#### Your Aims:

- Define finance companies and state examples
- Discuss the roles of finance companies
- Discuss where they obtain their money
- Discuss how finance companies provide finance to those who need it

### What are Finance Companies?

Finance companies are bank-like financial institutions. They make up the finance industry. They are concerned with taking investment deposits, making the investment deposits grow, paying dividends to those who invested in their company and lending funds to those who need them.

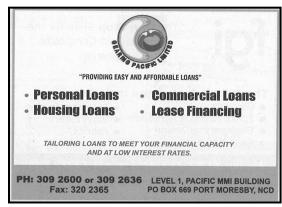
There are many finance companies operating in Papua New Guinea. Some of them are foreign owned and others are Papua New Guinean businesses. Here are some examples of finance companies in Papua New Guinea:

- Nambawan Finance Ltd
- AGC Pacific Finance Ltd
- MBf Finance Ltd
- IndoNiu Finance Ltd
- Resource and Investment Finance Ltd
- Welfare funds Ltd
- Life Insurance Company Ltd
- Credit Corporation Ltd
- Kina Finance Ltd
- FinCorp Finance Corporation Ltd

Here are two examples of finance companies:



Kina Finance Limited



Gearing Pacific Limited



# Activity 15.1: Read and answer the question.

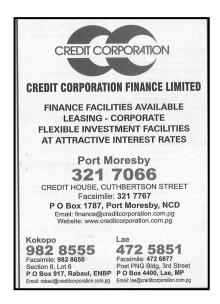
(1) Name a finance company that you know and state how you know this finance company.

### **Role of Finance Companies**

They provide finance to businesses and individuals who need it. This is done mainly through leasing, hire purchase and mortgages.

# Where do Finance Companies Obtain Their Money?

We may wonder where finance companies get the money that they lend out. Well, individuals and businesses invest deposits with finance companies and in return earn interest on term deposits. The finance companies then lend this money to those who need it, especially other businesses in the form of leasing finance, hire purchase and mortgage finance.





Finance Companies Advertising to the Public to Invest & Deposits

These advertisements are from two finance companies. Both companies are advertising to inform the public to deposit into their companies. They are also advertising other financial services that they offer.

Let us see how companies calculate their interest for their customers by using the formula:

Interest = Principal x Rate x Time

For example, Principal is K800, rate is 2% and Time is 3 months. This will be solved as;

```
Interest = K800 x 2/100 x 3/12
= K4
= K12 (K4X3) + K800
= K 812.00
```



# Activity 15.2: Read and answer the questions.

Imagine you deposited K5000 Fincorp Finance Company and they gave 4 % interest for every 3 months. How much would you earn onto your K5000 in one year?

\_\_\_\_\_

### **How Finance Companies provide Finance**

Finance companies provide finance through leasing, hire purchase and mortgages.

### 1. Leasing

Leasing is when a business arranges to obtain an asset from a dealer. Then, the finance company will then arrange to finance the deal through a lease agreement.

### Example:

Shanick has a vegetable farming business. She wants to buy an open back vehicle to help transport her produce to the market. She goes to Ela Motors and selects an open back vehicle for K95 000. She collects a quotation of the vehicle from Ela Motors.

She then goes to a finance company for assistance. She provides every detailed information about her vegetable farming business. This means she shows her financial statements of her business. The financial statements will tell of how strong she is in terms of income and expenses.

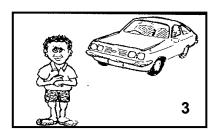
The finance company agrees to provide lease finance. This means that the finance company buys the open back vehicle from Ela Motors. It then, leases the vehicle to Shanick who takes possession and starts using the vehicle. Shanick will repay the K95 000 over a period of time through instalments.

While Shanick is making the monthly payments, the finance company still owns the vehicle. Once Shanick makes the last payment, she becomes the owner. If shanick is unable to make all the payments, then, this means the finance company will take the vehicle back even if most of the repayments have been made.

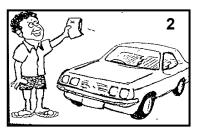
Turn to the next page and study the diagram to help you understand how leasing works



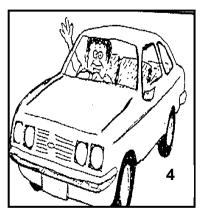
The buyer goes to the car seller (dealer) and obtains the price or quotation.



Buyer makes monthly payments but the finance company is still the owner of the car.



Buyer asks for assistance from the finance company. The finance company buys the car and leases it to the buyer.



The buyer owns the car after the final payment

#### 2. Hire Purchase

Hire purchase finance can be obtained from finance companies by both individuals and businesses. Hire purchase enables individuals to buy household goods like furniture, washing machines, refrigerators and cars.

When a customer buys something under hire purchase, an agreement is made between the customer and the finance company. Under the hire purchase agreement, the customer has to make a minimum deposit at the beginning based on the price of the item. The customer will continue to make a number of payments. These payments are called instalments. The instalments or payments will include any fees charged by the finance company. It will take up to twelve (12), eighteen (18) or twenty four (24) months depending on the agreement.

The finance company is still the owner of the item until the customer makes the final payment to settle the full amount. This means the customer is not the owner of the item until he completely pays his/her last instalment or payment. After, he/she has completely paid his/her 'instalments' he/she then becomes the owner. The customer now gets possession of the item.



Activity 15.3: Read and answer the question.

(1) List one advantage about hire purchase?

### 3. Mortgages

Finance companies also provide mortgages. A mortgage is a loan used to buy land or a house or any kind of building. It is a loan which usually covers 10 to 25 years. To pay this loan, there has to be regular instalments made throughout the term of the loan. A mortgage is different from a lease, because the buyer becomes the owner of the property immediately. However, the lender keeps the title deeds until the mortgage has been repaid. The title deeds are the legal documents which prove that you own the property.

### **Summary:**



You have come to the end of Lesson 15. You have learnt that;

- Finance companies are bank-like financial institutions.
- Finance companies provide finance mainly through lease, hire purchase and mortgage.
- Finance companies use individuals and businesses money that are deposited with them.
- The individuals and businesses earn interest from the finance companies for the use of their money
- Leasing is when a business or individual arranges to obtain an asset from a dealer. Then, the finance company and the dealer will arrange to finance the deal through a lease agreement.
- A hire purchase enables individuals to buy household goods like furniture, washing machines, refrigerators and cars.
- Under the hire purchase agreement, the customer has to make a minimum deposit at the beginning based on the price of the item. Then, he/she pays instalments up to to twelve (12),eighteen (18) or twenty four (24) months depending on the agreement.
- Under hire purchase, the customer gets possession of the item after, he/she has completely paid his/her last 'instalment'
- Finance companies also provide mortgages.
- A mortgage is a loan used to buy land or a house or any kind of building. It is a loan which usually covers ten(10) to twenty five (25) years. Regular instalments are made throughout the term of the loan.
- In mortgage, the lender keeps the title deeds of the property until the mortgage has been repaid.

NOW DO PRACTICE EXERCISE 15 ON THE NEXT PAGE



# **Practice Exercise 15**

1.	Describe in a small paragraph what a finance company is.

2. Study this advertisement and answer the questions given below.



(a) What is the name of this finance company?

Name five (5) services provided by this company for businesses and individua									
(i)									
(iii)									
(iv)									
(v)									
3. How does mortgage differ from a lease?	_								
4. Differentiate between the Central Bank and the other Commercial Banks and Financial Institutions.	- าd -								
	-								

# Lesson 16: Savings and Loan Societies



#### Introduction:

In lesson 15 you learnt about *Finance companies*. You learnt that finance companies are financial institutions that provide finance to businesses and individuals to buy assets. They provide finance to businesses and individuals through leasing, hire purchase and mortgage. In this lesson you will learn about Savings and Loan Societies.



#### Your Aims:

- Define Savings and Loans Societies and discuss their aims
- Discuss the functions and services offered by the Savings and Loans Societies
- Discuss how Savings and Loans Societies are established and managed.

# What is a Savings and Loan Society?

A Savings and Loan Society is a saving institution. It is established by twenty (20) or more people. These groups of people usually have a common interest or a similar back ground. For example, they may be from the same village, or community, or employees of a government department, or a statutory body, or members of the same denominations.

The Savings and Loan Society aims to encourage its members to pool their money together to help themselves financially later. It also aims to help its members to develop the habit of regular savings and to improve their standards of living from monies saved.

The members of the Savings and Loan Society must first agree to save a certain amount of money for some time before they are allowed to borrow. If and when a member borrows from the pool of money in the Savings and Loan Society, they are required to repay the loan with some interest. The interest charged is usually lower than the interest charged by the commercial banks.

	qu	esti	ons						
	Study the advertisement and answer the questions that follow.							that	
(a)	Name th	nis S ——	aving	s and	Loai	n Society	/.		
(b)	Where	do	you	think	the	people	who	formed	this

Savings and Loan Society come from?

Activity 16.1: Read and answer the

ALE	KANO SAVINGS &
LOA	N SOCIETY LIMITED
"Pe	ople Make It Happen"
W	e offer:-
	Savings Account
	Fixed Term Deposit
	Personal Loans
	Business Loans
Ph	one: 532 2055
Fa	x: 532 2052
	e Location:
	ey Street, Goroka Airport
PO E	Box 125, Goroka, EHP 441

(c) List the services that are provided by this Savings and Loans Society.

Some examples of Savings and Loan Societies in Papua New Guinea.

- Air Niugini Savings and Loan Society
- Eastern Highlands Savings and Loan Society
- OTML (Ok Tedi) Savings and Loan Society
- Police Savings and Loan Society
- Teachers Savings and Loan Society
- Kokopo Savings and Loan Society
- Nasfund Contributors Saving and Loan Society



# Activity 16.2: Read and do the following exercise.

Complete this table by filling in the groups of people who formed the Savings and Loan Societies below.

Savings and Loan Societies	Which group of people or workers form these Savings and Loan Societies
1. OTML (Ok Tedi) Savings and Loan	
Society	
2. Teachers Savings and Loan Society	
3. Nasfund Contributors Saving and	
Loan Society	
4. Air Niugini Savings and Loan Society	
5. Police Savings and Loan Society	
6. Kokopo Savings and Loan Society	
7. Eastern Highlands Savings and Loan	
Society	

### **Functions of the Savings and Loans Societies**

Let us look at the functions of Savings and Loans Societies. They are;

- To encourage people to use their money wisely and economically in order to improve their standard of living
- To enable members to gain experience and become familiar with their own money matters
- To provide a safe and convenient place to save money regularly
- To lend money to the members for personal purposes at a reasonable rate of interest
- Invest members savings in other investments such as buying property, shares and bonds, IBD with commercial banks and then, pay dividends each year on the members savings.



# Activity 16.3: Read and answer the questions

Talk to someone who is a member of a Savings a reasons for getting a loan from his or her Savings an	•	State to	ur (4

How did you go with your Activity 16.3? Well, there are many reasons for a person to make a personal loan from his/her Savings and Loan Society. Listed below are just a few examples to help you understand.

- To pay school fees
- To pay airline tickets in an emergency
- To contribute to funeral expenses
- To purchase materials to build a house
- To purchase a motor vehicle
- To purchase stock for a trade store
- To purchase household items like a refrigerator, a sewing machine, a computer set, and so on.

# How are Savings and Loan Societies Established and Managed?

We have already discussed earlier that at least twenty (20) or more people of a common interest or a similar background can establish a Savings and Loan Society. Once the organisation is established, it will be governed by a Board of Directors. The Board of Directors will then appoint a management team to manage the society. In addition, there are four important officers in the society. These officers are appointed each year by the Board of Directors. They are;

- The Chairperson
- The Deputy Chairperson
- The Secretary
- The Treasurer

- the head of the organisation
- assists the chairperson if the chairperson is absent, the deputy chairperson carries out the duties and responsibilities of the chairperson
- organises meetings of the society, records minutes of the meetings, and receives and answers correspondence of the society.
- deals with the society's finance, keeps its books of account and prepares its financial statements

Furthermore, the government has passed an Act of Parliament to guide the establishment and operations of all Savings and Loan Societies in the country. A registrar is appointed by the government under the Savings and Loan Societies Act. The Registry is administered under the supervision of the Bank of Papua New Guinea. The registrar will register groups as societies if he/she believes they will be successful.

### **Federation of Savings and Loan Societies**

The societies in Papua New Guinea formed their own national organisation. This organisation is called **The Federation of Savings and Loan Societies**. The Federation helps its member societies in many ways by:

- 1. Giving financial advice and assistance
- 2. Taking out insurance on loans
- 3. Investing money into businesses
- 4. Providing training for society staff

In addition to all our discussions above, we will also look at how members save, make loans and have access to their money that they pooled in the Savings and Loan Society.

### **How do Members Save?**

Previously, members were issued passbooks and all their savings deposits for each fortnight or month were recorded manually. Today, the members' savings are done in a more convenient way through the computers and the use of information, and communication technology.

At the time of filling in membership forms, the members also fill in forms that specifically instruct their salary sections in their government departments or private organizations to make a transfer of funds they have agreed to save into the account of their Savings and Loan Society. The clerks and key board operators at the Savings and Loan Society then, sort out the data of each member's deposits into or under their membership name and numbers from the record of deposits shown on the monthly statements received from its society account.

Under each member's name and membership number, his/her deposits are kept systematically through the computer network system of the Savings and Loan Society. The balance for each member's savings can be given over the counter when asked for. It can also be given through a telephone call.

# How do members make a loan and have access to their money that they loaned?

When a member is in need of money for personal reasons, he/she fills out a loan application form. In the loan application form, he/she has to specify the reason for the loan and also give all other information that is required. He/she then presents the loan application form over the counter, at the Savings and Loan Society office. The officers in charge of loans then, screen the application form. If all information filled is correct and the balance of the member savings is sufficient, then, the loan gets approved.

There are some instances where the loan applications of members are rejected. This happens when the members have already got a loan and the repayment of the that loan has not come due to some unknown reasons. The members may be asked to bring in previous pay slips to clarify the problem or perhaps be asked to check with their salary sections to sort out any salary payment issues that may have occurred. In the case where a loan is approved, the payment is done in two forms. They are:

- 1. A cheque which is collected over the counter
- A direct payment into the member's personal bank account. He or she will later access the money through the use of the ATM or EFTPOS in the shops or pay a visit to the bank.

When a member collects his payment through a cheque, then he or she has two choices. The first choice is to deposit the cheque into their savings account at a commercial bank like BSP, Wespac, May Bank or ANZ and later use his/her card to access the money at the ATM or the use of EFTPOS in the shops.

The second choice is that he/she can cash the cheque at a shop that accepts cheques. With this, he/she will have to present his/her ID card to the shop owner. When accepted, he/she will have to do some shopping as expected by the shop management. In some shops, the member has to shop up to 20% of his cheque amount. He or she will also pay a fee for the handling of the cheque.



# Activity 16.4: Read and answer the questions

Imagine you were	given a cheque	of K500. T	he shop expecte	d you to do	a shopping
of 20% and a K10	for handling the	cheque.			

- (a) How much will you spend on your shopping?
- (b) How much money will you receive in cash from the shop? \_\_\_\_\_

### **Summary:**



You have come to the end of your lesson. In this lesson you learnt that;

- A Savings and Loans Society is established by twenty (20) or more people who usually have a common interest or a similar back ground.
- The aims of a Savings and Loan Society is to encourage its members to pool their money together to help themselves financially later. It also aims to help its members to develop the habit of regular savings and to improve their standards of living.
- Savings and Loans Society have the following functions and services:
  - 1. To encourage members to use their money wisely and economically in order to improve their standard of living
  - 2. To enable members to gain experience and become familiar with their own money matters
  - 3. To provide a safe and convenient place to save money regularly
  - 4. To lend money to the members for personal purposes at a reasonable rate of interest
  - 5. Invest member's savings in other investments such as buying property, shares and bonds, IBD with commercial banks and then, pays dividends each year on the member's savings.
- There are many reasons for a person to get a personal loan from his Savings and Loan Society, for example, school fees, medical fees, bride price, and funeral costs.
- Once the savings and loans is established, it will be governed by a Board of Directors. The Board of Directors will then appoint a management team to manage the affairs of the society.
- There are four important officers in the society. They are; the Chairperson, the Deputy Chairperson, the Secretary and the Treasurer

NOW DO PRACTICE EXERCISE 16 ON THE NEXT PAGE



# **Practice Exercise 16**

1. What is a Savings and loan Society?

2. Study this advertisement and answer the questions given below.



(a) What is the name of this Savings and Loan Society?	
--------------------------------------------------------	--

(b) By which group of people is this Savings and Loan Society formed?	

- (c) What services are provided?
- 3. Write down reasons for a member to take out a loan
- Write down three functions of a Savings and Loan Society
- What is the function of a Registrar of Savings and Loans Society? Explain in a small and your in own words.

6.	Name the four (4) important officers in a Savings and Loans Society
7.	Write down two (2) functions that the Federation of Savings and Loans Societies does for its member societies.

CHECK YOUR WORK. ANSWERS AT THE END OF TOPIC 3

# Lesson 17: Retirement Benefit Scheme





Welcome to lesson 17. Let's recap on what you learnt in lesson 16. You learnt about Savings and Loans Societies and discussed their aims. You also discussed the functions and services offered by the Savings and Loans Societies and how they are established and managed. In this lesson you will learn about the retirement benefit schemes.



#### Your Aims:

- Define retirement benefit scheme and discuss its importance
- Identify the different retirement benefit schemes in Papua New Guinea
- Identify the benefits to its members and when to receive them.

### What is a Retirement Benefit Scheme?

A Retirement Benefit Scheme is a form of savings by employees of government department, statutory bodies, non-government organizations and companies for financial security when they reach retirement age.

Superannuation funds are termed as contributory pension schemes. They are designed to encourage savings. Employers also participate by complementing contributions made by their employees.

The retirement benefit fund will provide financial security in the future when one is living without a job due to retirement or unemployment.

It is particularly important for Papua New Guineans to be a member of such schemes or because the country does not have a government funded social welfare system that can take care of old aged and retired workers.



Weekly publications of Toktok save for Superfund members-2010



Lesson Activity 17.1 Read and do the exercises.

1. What is the retirement age for public servants?

2.	Why	is	the	retirement	benefit	scheme	so	important	in	Papua	New	Guinea?

### **Retirement Benefit Schemes in Papua New Guinea**

In Papua New Guinea, we have two major retirement benefit schemes; which are the National Superannuation Fund (Nasfund) and the Nambawan Superannuation Fund.

## **National Superannuation Fund Limited**

National Superannuation Fund Ltd was set up for employees working in the Private Sector or Non-Government Organisations includes companies like; Steamships, City Pharmacy, Inter Oil, Salvation Army, World Vision, Porgera Gold Mine etc.

# Nambawan Super Fund Limited

Nambawan Super Fund Limited was set up for public servants in government departments and statutory bodies. Example of employers include; Health, Education, Police, Fireman, Forestry, Telikom, Post PNG, PNG Power and many more.

# Recent changes

Employees of a private firm or non-government organisation who switch to a new government department can have the option of maintaining his superfund contribution to his old Nasfund account or can transfer his savings to Nambawan Superfund.

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11	***	 444	

# Lesson Activity 17: 2 Read and answer the questions

		•	
_		in Papua New Guinea?	
(a)			
(b)		<del></del>	
Write four examples the retirement benef a.	it fund.	vould allow their employees to	save with
b			
C		<del> </del>	
d			

# **Membership of the Retirement Benefit Funds**

### Who are the members?

Members are usually employees of any organization in Papua New Guinea and are citizens of the country. They can either be employed by private companies or in government departments and statutory authorities, on a full-time, part time or casual basis as long as they have been in employment continuously for three (3) months or more. It is a requirement through and an Act of Parliament to ensure a form of future financial security for members of the public service as well as those in the private sector.

#### Contribution to the retirement benefit fund

Both the employer and the employee must contribute to the pension scheme

- The employer pays eight point four(8.4%) percent of the workers gross pay
- The employee pays six percent(6%) of the gross pay. (Gross pay means wages before any deductions are made).

Each fortnight the workers contribution is deducted from their wages or salaries. This amount together with the employer's contribution is paid to the superannuation fund.

# Example:

Margaret works for a business that employs thirty (30) workers.

She earns K250 per fortnight. The National Superannuation Fund contribution from her wage would be;

 $250 \times 6/100 = K15$ 

Her employer would also pay  $250 \times 8.4/100 = K21$ 

### What happens to the money collected by the super funds?

Some of the money is used to manage the Funds activities i.e. to pay for salaries, rental, and stationeries. Most of the money is invested in banks and other financial institutions to earn interest. Money is also invested in property and shares. Some of the money is invested in Papua New Guinean businesses, like the Pacific Real Estate Ltd as well as overseas.

When workers retire they receive their contributions, plus a share of the profits earned by their money in the Fund. Workers will also get back the employers contribution if they have worked for the same employer for 15 years. If they have worked for less than 15 years they will get their own contributions back and part of the employer's contribution. Only the employers' contribution and interest are taxed when contributors get their savings back.

### What happens when one joins the fund?

Your employer will start deducting contributions, which you will see on your pay slip. It remits those contributions to the Superfunds each fortnight. If at any time there is nothing on your pay slip to indicate a deduction has been made, you should speak to your personal officer or pay clerk.

Now, turn to the next page to do activity 17.3.



Lesson Activity 17:3 Read and answer the questions.

1.	Explain how the member's savings is managed by the superfunds?
2.	Explain the advantages of nominating beneficiaries on the superfund?

### Retirement Plans that are involved in a Retirement Scheme

# Is retirement a time to reap the rewards?

You have worked hard and saved through the superannuation scheme to ensure you are financially secured. It is time to enjoy life and make the most important decision to use the money wisely bearing in mind that the retirement benefit may well be the last money coming in regularly, to look after you and your family.

# What is the Retirement Savings Account?

The Retirement Savings Account is another account that is created within the superannuation fund to assist retired workers make their retirement benefits last well into their retirement.

It is a savings account that is professionally managed by the Fund Investment Manager together with all fund investments. They ensure that your money continues to grow and pays dividends to you on a regular basis.

# Why should you open a Retirement Savings Account?

Retirement Savings Account is established in Papua New Guinea because of the alarming rate at which people who retire use their benefits to spend on their family commitments and other demands and their funds are exhausted within a very short period of time.

# Who is eligible to open a Retirement Savings Account?

To be eligible to open a RSA account, you must first be eligible to withdraw your superannuation fund at your retirement age of fifty five (55)years or 25 years of service (except in the case of Police, Correctional Institutional Services, Fire Service, whose retirement age is fifty (50) years or twenty (20) years' service). Where a member has not reached the retirement age but ceased employment, and has not secured a new employment continuously within a twelve (12) months period is eligible to open a Retirement Savings Account at the end of that twelve (12) months period.



# Lesson Activity 17:4 Read and do the exercise

1. In a small paragraph, explain what is a Retirement Savings Account?

2. Who is entitled to save in the Retirement Savings Account?

# Advantages of workers saving in a superfund

- Your money is safe.
- · Your money is invested and it makes interest
- The superfunds are controlled by the Central Bank.
- You are entitled to get a housing advance.
- Your withdrawal at retirement can be reinvested in a retirement savings account for added value.

### The benefits to its members and when they receive it

The workers only withdraw their savings when they reach their retirement age of fifty (55) years for public servant and fifty (50) years for the police force. Their lump sum payment comprises of their employee contributions, employer contributions and the interest with no government tax. This money can be used to build a home, buy a car, a boat, a PMV bus, and build a trade store and other commitments whichever that suits them.

# **Housing advance for members**

The Superfunds can offer to its members who are qualified to apply for a housing advance. This Indeed is a good chance for you to buy a home. Home ownership is another form of security for you and your family. The number of members who own their own homes increases every year through this scheme.

# If you die, who will look after your loved ones?

As a member of a retirement benefit fund, you are assured that in the event of your death, your beneficiaries will receive some financial support. It is very important to inform the Trustees of your beneficiaries.

# How would my beneficiaries claim my money after my death?

Your beneficiaries would need to obtain a form, called a Separation Authority Form from your employer. They complete the form, and then return it to your employer who would lodge it with the superfunds with a copy of the Death Certificate. Benefits are then calculated and paid by the superfund to your nominated beneficiaries.

# What if I was single and died without nominating a beneficiary?

The Superfund management would determine and pay your next of kin. Where no next of kin is identified, the Superfund management would pay the Public Curator who then has to try to decide who should be your beneficiary. If all attempts fail, the money will be forfeited to the state.

# **Physical or Mental incapacity**

You never know what is around the corner for us. If something like an accident prevents you from working again, the superfund has provision to look after you and your family out of the total contributions and interests until they run out. The rest will have come from insurance cover if covered.

Now, do activity 17.5.



# Lesson Activity 17:5 Read and answer the questions

State one advantage of the retirement benefits schemes?	
If a worker becomes disabled at the time of his employment, will he get some for of help from the superfunds?	orm

### **Summary:**



You have come to the end of Lesson 17. You have learnt that;

- A Retirement Benefit Scheme is a form of savings by employees of Government departments, statutory bodies, non-government organisations and private companies for financial security at their retirement age.
- There are two major superannuation funds established by an Act of Parliament, which are the National Superannuation Fund (Nasfund) Limited and the Nambawan Super Fund Limited.
- Employees do not withdraw their savings at any time unless it is an application for a housing advance, unemployment or cease employment and retirement.
- An employee who retires is entitled to collect his lump sum savings, which comprises of the employers contributions, employee's savings and interest from investment with low government tax.
- The savings in the superfunds are invested in businesses, share markets and properties to gain an interest for the members.
- Other countries have a government system which provides welfare and social security to retired and old aged people.
- Most retired workers exhaust their lump sum savings in a short space of time. The Superfund management has seen this problem and have assisted the retired members to save their money in the Retirement Savings Account

NOW DO PRACTICE EXERCISE 17 ON THE NEXT PAGE



# **Practice Exercise 17**

1.	An employee earns K500 gross salary. If he has to contribute to Namibian Superfund 6 % of his gross salary and the employer has to contribute 8.4 % of his gross salary, Calculate how much; a. the employee contributes to the superfund?
	b. employer contributes to his superfund?
2.	Name the three components of a retirement lump sum package? a b c
3.	List four (4) examples of items a retired member of a superfund is likely to spend on with his lump sum savings withdrawal; a
	b
	C
	d
4.	Why are superfund management encouraging retired workers to save their money in the Retirement Savings Account?

NOW CHECK YOUR WORK. ANSWERS AT THE END OF TOPIC 3

# **ANSWERS TO**

# **TOPIC 3**

# **PRACTICE EXERCISES**

### **ANSWERS TO PRACTICE EXERCISES 11-17**

# **Practice Exercise 11**

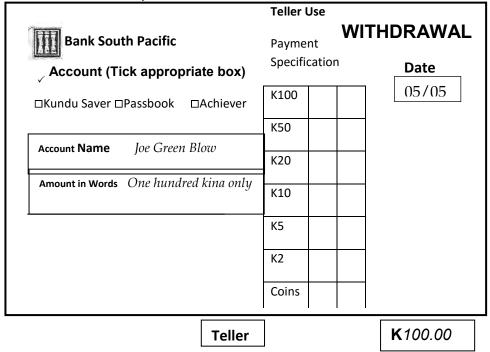
- 1. The Central Bank is the Bank of Papua New Guinea set up by the government after independence in 1975.
- 2. The Central Bank is owned by the government and it is controlled by a Board of Directors appointed by the government.
- 3. Monetary policies are policies carried out by the Central Bank to influence the amount of money in an economy and the way in which the money is used.
- 4. The main reasons are to:
  - (a) Control the amount of money in the country.
  - (b) Control the amount of money that other banks lend to the borrowers. This control is very important for our economy because having too much money will cause inflation in the country.
  - (c) The Central Bank can also use the monetary policy to increase the amount of money in the country.
- 5. It does so by controlling the commercial banks:
- (a) The commercial banks may be asked to deposit a sum of money to the Bank of Papua New Guinea. As a result, the banks will have less money to lend out to public.
- (b)The commercial banks may be asked to reduce their lending by a certain amount for example ten percent.
- (c) The commercial banks may be encouraged to raise or lower their interest rate. For example, if the government wants the public to spend less money, the banks will be encouraged to raise their interest rates. If the government wants the public to spend more, it will encourage the banks to lower their interest rate.
- 6. (i) It regulates and monitors all Savings and Loan Societies in the country
  - (ii) It issues trading licences to gold buyers and other financial institutions
  - (iii) It holds the country's reserves of the gold and foreign currency. Every country holds a certain amount of foreign reserves, in a form of gold and foreign currencies
- (iv) It issues the nation's currency Kina and Toea.
- (v) It controls the value of the kina against other countries currencies.

# **Practice Exercise 12**

- 1. Commercial banks are banks that generally accept deposits, withdrawals, and give loans to commercial and industrial businesses
- 2. The main objective is to make profits.
- 3. A fixed term loan is a loan made by the bank for a set period for example one year. Interest is payable on the loan.
- 4. An overdraft means that an account holder can make out cheques for more than the amount in the account. The limit or amount of the overdraft must be agreed with bank in advance.
- 5. The fees are charged because of the various services provided to the customers.
- 6. They are used in foreign currencies and are used by people travelling overseas. They must be signed twice by the holder. When they are first issued by the bank each cheque must be signed in the presence of bank officials, then it must be signed again when being cashed at the bank or when purchasing goods.
- 7. (i) They have necessary resources such as capital to maintain their operation in the county.
  - (ii) Their larger branch network can enable banking services to reach many people in the country.
  - (iii) They have the ability to respond to the customer needs, including the need of small businesses.
  - (iv) They have a lot of experiences in debt collection.
- 8. A holding company is a corporation that exists only to hold shares in another company.
- 9. The process in which banks make payments or transfer money from one account to another account.

- 1. These are services provided by the bank for their customers, such as savings, cheque accounts, and various types of loans, phone and internet banking.
- 2. (i) Saving money
  - (ii) Withdrawing money
  - (iii) Sending money to relatives/ friends,
  - (iv) Giving out loans to purchase big items
  - (v) Paying bills through the phone
  - (vi) Purchase goods and services on the internet
- 3. A cheque is a written order telling a bank to pay an amount of money to another person or account. It is also used to pay for goods and services.
- 4. A bank deposit slip

5. Sample of Withdrawal Slip.



- 6.(i) Buy a house or Mortgage (housing loan)
  - (ii) Buy a truck after 5 years Term Deposit
  - (iii) Pay school fees, Personal Loan and School fee loan
  - (iv) Go on a holiday overseas Personal Loan
- 7. a. Paying bills (water, garbage, power,
  - b. Transferring funds to another account
  - c. Checking account balance
- 8. a. Reduced paper flow
  - b. Enhanced security
  - c. availability and convenience of cash transfers
- 9. With debits cards payments are made immediately as the transactions take place, with credit cards, goods and services are purchased but payments are made at a later date with the interest added on.

- 1. The National Development Bank was established in 1967. The purpose of the establishment was to help Papua New Guineans start businesses.
- 2. The Development Bank of PNG
  - The Agricultural Bank
  - The Rural Development Bank
  - The National Development Bank
- The National Development Bank is funded through grants from the government's annual national budget and from international lending agencies like the World Bank and the Asian Development Bank.
- 4. The current lending products of the National Development Bank are: agriculture, commercial, microfinance, fisheries credit, rural housing, credit schemes and other schemes.

5. Other services the National Development Bank gives are Insurance and Entrepreneurial Development Trainings to its clients.

- 1. Finance companies are bank-like financial institutions. They are part of the finance industry. They are concerned with taking investment deposits, making the investment deposits grow, paying dividends to those who invest in their company and lending to those who need it.
- 2. The Bank of Papua New Guinea differs from the commercial banks and other financial institutions. The public cannot deposit or withdraw money from this bank, it does not operate cheque book accounts for the public, public cannot borrow money from this bank and it is responsible for the monetary policy, exchange control and the issuing of the currency. Commercial banks are not responsible for any of these Central Bank functions.
- 3. Study this advertisement and answer the questions given below.



- (a) PNG Microfinance Ltd
- (b) -- Personal savings
  - School savings
  - School fee savings
  - Term deposits
  - Fast Track Loans
  - Krismas Moni Account
  - Wanbel Loans
  - Business Loans
  - Woklain Dinau
- 4. A mortgage is a house loan and different from a lease, because the buyer becomes the owner of the property immediately. However, the tender or the bank keeps the title deeds until the mortgage has been repaid.

- A Savings and Loan Society is a savings institution. It is established by twenty (20)
  people or more. This groups of people usually has a common interest or a similar
  back ground.
- 2. Study this advertisement and answer the questions given below.



- (a) It is called the Teachers Savings and Loan Society.
- (b)It was formed by teachers across the country
- (c)It provides money to pay school fees, airline tickets in an emergency, contribute to funeral expenses, purchase materials to build a house, motor vehicle, stock for a trade store, household items like refrigerator, sewing machine, computer set, etc.
- 3. To, pay school fees, airline tickets in an emergency, contribute to funeral expenses, purchase materials to build a house, motor vehicle, stock for a trade store, household items like refrigerator, sewing machine, computer set, etc. (any of the above)
- 4. To encourage people to use their money wisely and economically in order to improve their standard of living
- To enable members to gain experience and become familiar with their own money matters
- To provide a safe and convenient place to save money regularly
- To lend money to the members for personal purposes at a reasonable rate of interest
- Invest member's savings in other investments such as buying property, shares and bonds, IBD with commercial banks and then, pays dividends each year on the member's savings.
- 5. The Registrar of Savings and Loans Society's job is to supervise the Savings and Loan Societies and register groups as societies if he/she believes they will be successful.
- 6. The four important officers in the society are; the Chairperson, the Deputy Chairperson, the Secretary and the Treasurer.
- 7. (a) Giving financial advice and assistance
  - (b)Taking out insurance on loans
  - (c) Investing money into businesses
  - (d) Providing training for society staff ( (any two of the above)

# **Practice Exercise 17**

- (a)  $6/100 \times K500 = K 30.00$
- (b)  $2.4 / 100 \times K500 = K 42.00$
- 2. (a) employee contribution. b). employer contribution c). Interest
- 3. (a) buy land in town, (b) build a house, (c) buy a car, boat, (d) build a trade store.
- 4. To help the retired workers get better return from their money and to prevent them from unnecessary spending.

REVISE TOPIC 3 AND DO TOPIC 3 TEST IN YOUR ASSIGNMENT BOOK 3

GR9 BS U2 149 TITLE

**TOPIC 4** 

**TAXATION** 

GR9 BS U2 150 INTRODUCTION

# **TOPIC 4: INTRODUCTION**



Welcome to Topic 4- Taxation. This topic teaches you about taxation and its importance, the body that takes lead in the collection of taxes in-order to run the affairs of the country and the different tax systems in use. You will also study the tax requirements for income earners and businesses.

# **Lesson 18: Internal Revenue Commission**

Involves defining the Internal Revenue Commission (IRC) and the functions and roles it plays in the country as an important body. It is a complex system and you will study the basics of this organization and how it carries out its duties.

# **Lesson 19: Income Tax**

Involves defining tax and income tax. You will look at the factors that determine how much tax is to be paid, the methods of taxing available and which ones are used in the country. A hands- on practice on calculating tax in given situations.

#### **Lesson 20: Company Tax**

Involves defining company tax. You look at how private companies pay tax and the factors looked at to determine how much tax to pay.

#### **Lesson 21: Other Taxes**

Involves identifying other types of tax. You will also study how tax exemption works and how can apply for it.

# **Lesson 18: Internal Revenue Commission**



# Introduction

Welcome to Lesson 18, it is based on the Internal Revenue Commission. Your last lesson was on Retirement Benefit Schemes, you studied the different schemes available in the country, the importance and how one will benefit from them. Papua New Guineans must plan for their retirement so they will be able to retire peacefully.



#### Your Aims:

- Define Internal Revenue Commission
- State the importance and the roles of the Commission
- Explain the different functions of the Internal Revenue Commission

#### What is the Internal Revenue Commission?

The Internal Revenue Commission (IRC) is the National Governments tax collecting Authority set up by the ACT of Parliament. So in simple, we can say that the Internal Revenue Commission is the taxation office. Taxation is the system whereby taxes are charged on various types of income, earnings, and purchases too.

The Internal Revenue Commission (IRC) is managed by the Commissioner General who is assisted by the Taxation Commissioner and the Commissioner for Services.

The organisation oversees the Tax Wing, whose sole responsibility is to collect taxes, assesses and prioritises, manages debts, policy, provides advice and carries out tax audits. The Commissioner for Services oversees the services wing which is made up of the Commissioners, Internal Audits and Integrity, Information Communication and Technology and Legal Services.

After all the funds are collected, it is handed over to the Finance Department to budget for various development projects, servicing and maintaining of basic services, law and order and other necessary areas

# Importance of the Internal Revenue Commission

This body plays a very important role in the collection of the country's revenue. It was established and mandated by Parliament to collect all the revenue belonging to the government. Revenue which is in the form of taxes of different types are charged by the government on personal, business incomes as well as goods and services. Taxes are the main source of revenue for the National Government and are used to fund all government expenditure each year.

Apart from this, the organisation is used to achieve other objectives of the government. These include;

- · encouraging and discouraging certain industries
- encouraging and discouraging the importing of certain products
- encouraging the fair distribution of national income
- · encouraging and discouraging the consumption of certain goods

Other bodies like the Customs, Investment Promotion Authority, government departments, private companies, and commercial banks, help the Commission to implement this Act by collecting the monies and remitting them to the government.

The Internal Revenue Commission has its Headquarters in Port Moresby, NCD, and there are Goods and Services offices in most of the provinces of Papua New Guinea.

Listed below in regions are the Internal Revenue Commission (IRC) regional offices throughout the country.

Southern Region	<b>Highlands Region</b>	Momase Region	Islands Region
Port Moresby- HQ	Goroka	Lae	Buka
Alotau,	Kundiawa	Madang	Kimbe
Popondetta	Mt Hagen	Wewak	Rabaul
Kerema,	Wabag	Vanimo	Kavieng
Daru	Mendi		Lorengau



# Activity 18.1 Read and answer the questions below.

(1) Who is the current Commissioner General for the Internal Revenue Commission?

(2) If I live in Oro the Province and needed to visit the nearest IRC office, where will I go?

**Key Functions of the Internal Revenue Commission** 

We will now have a closer look at the key purposes of the Internal Revenue Commission. The government is a large organisation concerned with raising the standard of living for its population. In order to do this it undertakes numerous activities. This includes:

- Providing essential services e.g. health, education, defence etc.
- Undertaking development projects
- Protecting the country from foreign invasion.
- Maintaining law and order
- Undertaking to distribute national income in a fair and reasonable manner.

Taxation is the major activity that the government uses to raise funds within the country to finance its expenditure. It is also used to achieve other government objectives. We will look at them briefly;

(1) Collecting all the money that is needed by the government of the day. This is the biggest task that the Internal Revenue Commission has been tasked with to carry out. Remember the government must raise eighty percent of its budgetary allocation from within the country. It has put into place responsible bodies and mechanisms to collect its revenue. Tax is collected from such activities as, income from individuals, companies and investments etc. In fact, the nature of business conducted decides the type of tax it has to pay.

Study the table below and see how much tax (2007 tax rates) you would pay if you are working.

Annual taxable income (K)	Taxable income (K)	Rates of tax on excess (%)
(1) Up to 7000*	nil	22
(2) 18000	2420	30
(3) 33000	6920	35
(4) 70000	19870	40
(5) 250000	91870	42

Any individual income which is less than K7000 is not taxed but if it exceeds, then it is taxed.

# Interpretation

(a) Line 1: Taxable income up to K7000 is not taxed. However, any individual income in excess of K7000 and up to K18000 is taxed at 22%.

Company taxes are paid according to the amount of profit that is made in a year. However, as a general guide a rate of;

- 30% is taxed on local companies
- 48% on foreign companies

This is charged on the total profit earned in one year. So let's say that a profit of K20, 000 is earned after all the business expenses, by a local company.  $30/100 \times 20,000 = K6000$ 

Other taxes include gaming machine, customs duty, goods and services, stamp duty, land lease, airport departure, bookmakers, training levies etc, are just a handful that can be mentioned here and each have their own rates.

- (1) Encouraging and discouraging certain industries
- Local farmers are encouraged to grow and raise more local vegetables and animals so the imported ones can be stopped or restricted. Locally produced goods are more nutritious and healthy for our bodies and should be consumed daily for the body's upkeep.
- (2) Encouraging and discouraging the importing of certain products Some products or services which are a threat to health or lives are not allowed in the country therefore the government places certain restrictions on them. Examples of these are electrical items, toys for children, and pirated CDS etc.
- (3) Encouraging the fair distribution of national income

The wages or salaries structure are done in such a way that anyone who is an employer taxes their employees and these funds collected are forwarded to the respected organisations. The type of taxing which is progressive taxing is a good method of taxing because everybody takes a fair pay home. The more money one earns the more tax they have to pay.

(4) Encouraging and discouraging the consumption of certain goods Some goods are bad for consumption by people like, for example, smoking of cigarettes, eating of lamb flaps, certain legal and illegal drugs etc. are bad for peoples' health and well- being.



# Activity 18.2 Read and answer the questions

(a)	Name three (3) activities that would not be encouraged in the country.		
(b)	In a short paragraph explain what progressive taxing is?		

# **Other Duties**

The tax wing is mandated with the duty to collect taxes throughout the country, however, there are other duties associated with collecting taxes which they are obliged to carry out.

The organization has taxing systems put in place to make sure that money is collected and acquitted at all points.

There are other duties essential in this body such as; assessing and prioritizing the work which is required of them. Staff will have to travel to provincial offices to rectify problems as to why funds are not coming as well as any other issues related to the work of the Internal Revenue Commission.

The organisation deals with policies that touch peoples' lives so are trained to manage debts especially for businesses who are not able to meet their obligation to the government as well as people who try to escape and not pay or pay less tax. The officers provide advice and carry out tax audits regularly on behalf of the Internal Revenue Commission following what the policies require them to do as part of their duties.

#### **Summary:**



You have come to the end of this lesson. In this lesson you have learn that:

- The Internal Revenue Commission is an organisation mandated by the Act of Parliament. It collects most of Papua New Guinea's revenue for its annual expenditure.
- The Internal Revenue Commission is made up of three sections, Commissioner General, Commissioner Taxation and Commissioner Services.
- Taxes are collected to develop projects, protect the country, maintain law and order, and provide health and educational services.
- The goods and services offices in the provincial centres oversee the business activities plus any other activities relating to tax in each of the provincial centres around the country.

NOW DO PRACTICE EXERCISE 18 ON THE NEXT PAGE

	Practice Exercise 18
1. In a	a short paragraph explain the task of the Internal Revenue Commission.
2. Exp	plain this phase "mandated by the Act of Parliament"
	the following sentences and state whether they are True or False.  Employers deduct and collect taxes from employees
(b)	Eighty percent (80%) of the annual income come from overseas as loans and grants
(c)	Mandated by the Act of Parliament means one can go to prison for avoiding tax
(d)	Businesses pay taxes directly to the General Services Tax(GST) offices in the provinces
	t the three (3) sections of the Internal Revenue Commission. Briefly state what by do.

NOW CHECK YOUR WORK.ANSWERS AT THE END OF TOPIC 4

(ii) \_\_\_\_\_

# Lesson 19: Income Tax



#### Introduction:

Welcome to Lesson 19. In your last lesson you studied, the body that is mandated to collect taxes. In this lesson, you will learn about Income Tax, what they are, how they are calculated and paid by people and businesses operating in the country.



#### Your Aims:

- Define tax and income tax
- Identify factors that determine how tax is paid
- Identify taxation methods
- Identify those who pay income tax and the tax rate
- Calculate the income tax in given situations

#### Tax

Tax is an amount of money levied by a government on its citizens and used to run the government, the country, a province, district, and city.

#### Income tax

Income tax is the tax paid on money made from employment, businesses, capital or investment.

#### Income tax paid by businesses

All firms and owners are required to pay taxes on income earned to the taxation office (IRC). They are also required to deduct personal income tax from their employees income and pass it on to the government. Furthermore, businesses are required also to charge Goods and Services Tax (GST) on goods and services supplied to customers. This tax is also passed on to the government.

The rate at which tax is paid will depend on the type of business unit involved and the total profit made in one year.

The taxable income of a business is the net income that is subjected to tax. This is paid for by business owners in their daily running of the business activities.

# Income tax paid by an individual

Taxable income is income that is eligible to be taxed. For example, in Papua New Guinea according to the salary and wages table, if an employee earns up to K7000 per year which is the base level, this income is not taxed. However, if an employee earns more then K7000 in a year, this is taxable income.

Taxable income is any income that is eligible to be taxed. For example, in Papua New Guinea any wage or salary which is more then K7000 or above, is taxed.

It is important that you apply the information in the table on the next page in order to calculate a personal tax liability.

#### TABLE OF PERSONAL INCOME TAX RATE

	Taxable Income (K)	Tax Payable (K)	Rate on tax on Excess (%)
	(Up to and not exceeding)		
1	0 - 7000	Nil	0
2	18000	2240	22
3	33000	6920	30
4	70000	19870	35
5	250000	91870	40

Fig 19.1

The Taxable income equals gross income less allowable expense. To further explain taxable income, this is income beyond the set amount by the Minimum Wages Board.

The Allowable expenses are expenses that are part of the daily spending that are allowed in order for the smooth running of a house or business. Allowable deductions are expenses that are deducted from gross income in order to calculate taxable income. Most business expenses will be treated as allowable deductions.

The amount of tax that a business or businessperson is required to pay is known as the **tax liability**. All business incomes are not all taxed in the same manner. The amount of tax payable will depend on the particular type of business units.

# Taxation of sole trader and partnership

Sole trader businesses and partnerships are not taxed as firms. Instead the owners who received the income of these firms are taxed. The rate at which individuals pay tax on business income is like the normal personal income tax rate.

The Tax calculation is based on the table in page 158.

#### Example 1

If a person earns a taxable income of K18 000 from a business, the tax payable on this amount is K2240. If the same person earned K20 000 which is taxable income, tax payable would be calculated as follows:

Tax on K 18 000 K 2240
Tax on the excess K 2000 (K 2000 x 22%) + K 440
Total Tax on K 20 000 K 2680

#### Example 2

A sole trader earns K 130 000 in taxable income. Tax payable would be calculated as follows:

Tax on K 70 000 K 19870
Tax on excess K 60 000 (K 60 000 x 35%) + K 21000
Total tax on K 130 000 K 40 870

#### Example 3

A partnership has a taxable income of K 240 000. This income is split equally among four partners. Tax payable by each partner would be calculated as follows:

Taxable income of each partners would be K240 000 / 4 = K 60 000 and tax payable on this amount is:

Tax on K33 000 K 6920 Tax on excess K27000 (K27000 x 35%) + <u>K 8100</u>

Total Tax on K60, 000 K15020( tax paid by one partner)



# Activity 19.1: Read and answer the question.

1.	A partnership consisted of three members who had a net profit of K120 000. The
	members agreed to share the profit equally.
	a Coloulate how much profit was received by each partner ofter the payment of

<ul> <li>a. Calculate how much profit was received by each partner after the payment of tax.</li> </ul>
b. How much tax was paid by each partner?

A person earning a salary or wage pays tax at personal income tax rate as above. We shall consider salary and wages now.

# **Taxes deducted from Salaries and Wages**

Employers must deduct income tax from the wages of all their employees. Every fortnightly the employer must;

- · calculate the gross wage of each employee
- calculate income tax payable by each employee
- Deduct income tax (and other expenses) from the gross wage of each employee in order to calculate the net wage.

Each month, employers must hand over the tax deducted from employees 'wages' to the taxation office. This tax must be paid in the first week of the month following the month in which it was collected. For example, all income tax collected in January must be given to the taxation office in the first week of February.

The Tax on salaries and wages is paid at personal income tax rate (fig 19.1). The fortnightly tax tables produced by the taxation office are based on these rates. They also include allowances for dependent rebates. A section of the fortnightly salary or wage table is inserted at the back of this book in the appendix.

# Dependants' rebate

All income earners are entitled to receive a rebate or credit, for dependants they have to look after. The rebate is deducted from the tax payable on their income. Income earners may only claim a rebate for the following dependants (up to a maximum of three):

- The wife or the husband of an income earner who is not employed
- An unmarried child of less than 16 years
- A child receiving full time education who is over 16 but under 25 years old
- The parent of a taxpayer
- A brother, sister or child of a taxpayer who is permanently incapacitated. (Incapable of work through injury, disabled or sickness)

The tax payer may not claim for a dependant who earns over K1040 per year or more than K50 a fortnight. The rates for dependant rebates are as follows;

- First dependent: 15% of gross tax payable, but not more than K450. Or less than K45
- Second, third and fourth dependant: 10% of gross tax payable: but not more than K300, or less than K30

A worker is taxed using the tax table which you can collect from Internal Revenue Commission (IRC).

For example, if you are working and earning K302.50. Say you are married with one child and your wife is not employed. Your tax will be K18.33. You have two dependants. You can locate the tax on the table in the Appendix.

This is built into the fortnightly tables an annual allowance of K200 for every wage earner for a work related expenses. This allowance is to compensate employees for expenses connected with their work. Such as when employees purchase Stationery or use their own computers for their work. The effect of this allowance that someone who earns for example K10000 will be taxed on K9800 (K10 000 – K200)



# Activity19. 2: Read and answer the question

Why does the government collect income tax?
2. A cleaner earns K6 000 a year is also paying taxes. How much will he or she pa as tax?

# Wages tax declaration form

Employees must complete a wage tax declaration form and give it to their employer. The employer must send the original of this form to the taxation office. This form shows the number of dependants you can claim rebate for. A new form should be completed each time there is a change in the number of dependants claimed for. It is easy to work out the employee's net wage, once their fortnightly wages and the number of dependants they may claim for are known by simply referring to the fortnightly tax table in the appendix.

#### Example 1

A worker earning K370 per fortnight has three dependants. Fortnightly tax will be K24.73

# Example 2

A worker earning K439 per fortnight has four dependants. Fortnightly tax will be K30.97

# Example 3

A worker earning K505.20 per fortnight has two dependants. Fortnightly tax will be K57.54. Check these figures with the fortnightly tax table in the Appendix. It is important when reading the tax table that you refer to the correct row of figures and correct column. Mistakes are made by referring to the row either above or below the correct one. For example a person with one dependant on a salary of K433 per fortnight would pay K46.34 tax. If the salary was K433.20 tax would be K46.85. You must pay special attention to the column heading 'exceeding' and 'not exceeding in column one.



# Activity 19.3: Read and answer the question

٥	
(1)	Explain why it is important for employees to complete a Tax Declaration Form.

# Summary:



You have come to the end of your lesson. In this lesson you learnt that:

- Income tax is paid by employees and businesses.
- Taxable income equals gross income less allowable deductions.
- Allowable deductions are expenses that are deducted from gross income in order to calculate taxable income. These are expenses spent to earn the income.
- Taxes are paid according to different rates set by the government through the Taxation Office (IRC).
- Personal wage or salary taxes are collected and sent to the taxation office every month.
- The Tax declaration form should be filled in when there is a change in the number of dependant or if you are employed for the first time.
- Changes in tax depend on your dependants and the rate of the wage or salary.

NOW DO PRACTICE EXERCISE 19 ON THE NEXT PAGE



# Practice Exercise 19

122444	
1.	Who sets the tax rates for income tax?
2.	State the reason why workers earning less than K300 a fortnight cannot pay income tax.
3.	What's the maximum number of children for tax rebate per family?
4.	Explain why every employee receives tax allowance each year.

- 5. Use the tax table given in the appendix to answer these questions. A security guard earns K350 per fortnight.
  - a. Calculate the tax to be applied on this income using the tax table.
  - b. How much tax would he or she pay if this person lodged a declaration for four dependants?
  - c. Assume that the security has not lodged a dependants declaration form. How much tax will he or she pay?

NOW CHECK YOUR WORK. ANSWERS AT THE END OF TOPIC 4

# Lesson 20: Company Tax



#### Introduction

In lesson 19, you learnt about how income taxes on wages and salaries are paid. In this lesson, you will learn about company taxes, how companies pay their taxes, the factors that are used to determine tax payable and also discuss dividend with - holding tax.



# Your Aims:

- Define company tax
- Discuss how the companies pay taxes
- Discuss dividend withholding tax
- Identify factors that determine how much a company pays
- Discuss supply and control of money in Papua New Guinea

# **Company Tax**

Every business is required by law to declare their income and pay tax on the income they receive each year. This is a requirement for all registered businesses such as companies, and business groups. Tax liability tells us that whatever they are required to pay will depend on the type and size of the businesses. That means tax is paid by sole trader and partners in partnership businesses too. In lesson 19, we learnt about income tax paid by businesses and working people too. This is because not all types of business use the same tax rate.

# **Taxation of Companies and Business Groups**

The profit or taxable income of companies and business groups are taxed directly before they are distributed to members or shareholders. They are taxed differently from the income of Sole traders and Partnership businesses. Public and proprietorship companies as well as business groups pay tax on their share of profit.

#### Financial Period

Companies must lodge their tax returns for the financial year ending 31st December of that year unless they have permission from the Commissioner General to adopt an alternative period.

# Residence

A company will normally be treated as a resident of Papua New Guinea in a particular year if the company is:

- Is incorporated in Papua New Guinea; or
- Conducts or Carries on business in Papua New Guinea, and has either its central management or control or its voting power is controlled by Papua New Guinean resident shareholders.

# **Liability of Resident Companies**

A resident company is taxed in Papua New Guinea on its world-wide income. Non-resident companies pay tax only on their Papua New Guinea income. World-wide income means income from Papua New Guinea and other countries.

# Calculation of taxable income

There are special rules applying to certain companies such as mining, petroleum and gas companies. In most cases, however, taxable income is generally equivalent to

accounting income except where the income tax law requires specific calculations to be made.

Major areas where there are specific rules for working out amounts to include in taxable income or claim as deductions etc are as follows.

# Tax Rates for Companies (2009)

Resident companies: 30 percentage; and non- resident companies: 48 (%) percent. However, there are different tax rates for income from mining, petroleum and gas. In addition, companies may also be liable to other taxes such as dividend withholding tax or additional profits tax. Here is an example of how a company tax is calculated. Wewak Pty Ltd has a trading income of K260, 000. Expenses amount to K150 000 leaving a net profit of K90 000. The company tax on this figure will amount to K90 000 x 30% = K27 000



# Activity 20.1: Read and answer these questions.

Calculate the tax payable for the following companies net profit.

1. Lima Traders Pty Ltd K45 000

2. Delta Transport Ltd K350 000

3. Berth a foreign company operating in PNG K 500 000

Some companies are tax exempted (pay no tax) for a number of years after setting up. Such companies may be located in remote areas involving primary or manufacturing. It's sometimes done to attract more foreign investment in the country or promote that type of business.

#### Provisional Tax

Provisional tax is paid by companies to ensure that income tax that is expected to be payable on their income in a particular year will be collected during that year.

This is done by the Internal Revenue Commission issuing a provisional tax assessment based on the last income tax return lodged. If no tax was payable on the prior year return (or one was not lodged) the Commissioner can estimate the tax that should be payable.

Provisional tax is payable in three equal instalments on or before 30 April, 31 July and 31 October. The amounts paid will reduce the company tax bill when it lodges its income tax return for that year. If the taxpayer believes that the tax due for a particular year will be less than the provisional tax assessed by the Commissioner it may apply to have the provisional tax assessment reduced to reflect the taxpayer estimated tax due. Penalties may apply for variations which are significantly below what is ultimately payable by the company.

# **Dividend Withholding Tax (DWT)**

The profit of the company that is distributed to shareholders as dividend is subjected to withholding tax. The dividend withholding tax is levied at a rate of 17% on all profits distributed. The profit from the business group however is not subject to dividend withholding tax.

When the shareholder receives dividend (s) from a company, dividend withholding tax has already been deducted from their dividend.

A company will not normally distribute all its profit to shareholders. It is important to remember that only the part of the profit distributed to shareholders is subject to dividend withholding tax.

# Example 1

A public company has a taxable income of K250 000. Its directors decide to distribute K150 000 to the shareholders;

Tax payable (K250000 x 30%)	K75 000
Dividend withholding tax (K 150 000 x 17%)	K25 500

# Example 2

West Goroka trader declares a net profit of K200 000. The director agrees to keep 50% of the profits (after the company tax) in the company. The remaining 50% will be distributed as dividend to shareholders.

below

Tax payable would be

Company tax (K200 000 x 30%)	K60 000
Net Profit after tax (K200 000 – K60 000)	K140 000

Sum to be distributed as dividend before dividend withholding tax:

K140 000 x 50%	K70 000
K 140 000 X 50%	K / U UUU

Dividend withholding tax payable

(K70 000 x 17%) K11 900 Net amount distributed as dividends K58 100

	Activity 20.2	Read and answer the questions
1 3		

(1) Lae Bakeries Ltd has a taxable income of K240 000. It profit (after payment of company tax) to its shareholder	
a. Calculate the amount of company tax and dividend withl	nolding tax paid.
b. How much money was distributed as dividend?	

Dividend withholding tax does not apply in a number of circumstances. The following types of dividends are exempted.

- Dividends paid to organisations such as sporting or charitable bodies.
- Dividends paid to superannuation funds established for the benefit of employees;
- Dividends paid out of pioneer income;
- Dividend withholding tax is payable on deemed dividends including:
- Liquidator distributions of accumulated revenue profits;
- Loans to shareholders of private companies;
- Excessive remuneration of directors (or their relatives) of private companies;
- Shares sold as part of a tax avoidance scheme.

# **Income Tax Rate for Resource Projects**

Different rates of tax apply for different types of resource projects as shown in the table below:

Type of Project	Rate of Income	Rate of Dividend Withholding Tax (DWT)
Petroleum (project in production prior to 31/12/2000)	50%	none
Petroleum (project commencing production from or after 01/01/2001)	45%	none
Petroleum (PPL granted between 01/01/03 & 31/12/07 and production licence granted before or by 31/12/2017.)	30%	none
Gas	30%	none
Mining - resident	30%	10%
Mining - non- resident	40%	none

The rate of income tax for petroleum projects was reduced from 50% to 45%, commencing in 2001. The tax rates for the non-resident mining companies have been reduced to 40% from 48% with effect from 1 January 2006.

For petroleum and gas, there is no distinction between a resident and non-resident company.



# Activity 20.3: Read and answer the questions below

(a) Explain in a short paragraph the phase 'dividend withholding tax'.

(b) List two (2) groups or organisations that are exempted from dividend withholding tax.

# Summary:



You have come to the end of Lesson 20. You have learnt that:

- Companies and business groups are taxed using the company tax rate.
- The rate of company tax is 30% for the residential companies and 40% for non-residential businesses.
- Certain foreign companies are exempted from paying company taxes if they operate in remote areas or dealing with manufacturing and primary products.
- Companies are exempted from tax to encourage more foreign investors to invest in our country or promote an industry. e.g tourism
- Tax returns are sent every year to prove that the tax payments are made to the taxation office
- Provisional taxes are paid three times a year.
- Dividend withholding taxes are paid by the shareholder of the company out of this dividend
- The Company pays the company tax and then it distributes the dividend.
- The dividend received by shareholders are taxed at 17% withholding tax
- Some company shareholders and organisations receiving dividends are exempted from dividend withholding tax.

NOW DO PRACTICE EXERCISE 20 ON THE NEXT PAGE

В		
н		- 1
	-	- 3
1	1	- 3
В		:
	1	- 1
-	1	- 3

# **Practice Exercise 20**

(i)	How can a business obtain a tax file number?
(ii)	Why does the government require a tax return from businesses?
(iii)	When is a company obliged to pay dividend withholding tax?
(iv)	What is a provisional tax?

NOW CHECK YOUR WORK. ANSWERS AT THE END OF TOPIC 4

# Lesson 21: Other Taxes



#### Introduction

So far in your previous lessons you have been looking at how taxes are being levied on individuals and organisations by the government. The business organisations pay taxes according to how much they generate as their revenue (profit) in a year. For that reason you have studied company tax. In this lesson, you will study other taxes.



# Your Aims:

- Identify other types of taxes
- Discuss tax exemptions

#### **Other Taxes**

Other taxes or Indirect Taxes are imposed on businesses who provide goods and services. These taxes are dues which are levied on goods and services. They are usually added to the price of the goods and services when they are sold. The businesses collect these taxes and send them to Internal Revenue Commission.

Normally, the consumers pay for goods and services and included in their prices - are these indirect taxes. Indirect taxes are taxes where the burden of payment is shifted or passed on to someone else. The person or the business that the tax is levied does not actually end up paying for it. It is the consumer who finally pays for these taxes. The businesses simply collect them and emit them to Internal Revenue Commission.

There are a number of Indirect Taxes and they are as follow:

- 1. Sales Tax or Goods and Services Tax (GST),
- 2. Customs Duty,
- 3. Excise Duty.
- 4. Provincial government tax
- 5. Local Councils and urban authorities
- 6. Dividend withholding tax

These taxes are being defined and discussed separately below with other tax related terms like Tax Exemption and Tax Provision.

#### 1. Sales Tax

Sales Tax is a tax levied on most goods as a percentage of their price. Sales Tax can be defined as a tax on certain goods and services. For that reason, it is also called Goods and Services Tax (GST). The money collected from this tax goes to the provincial governments in each province to fund their community activities. The rate of tax varies depending on the nature of the good. Luxury goods, such as motor cars, cosmetics, machines, electrical goods and other goods like alcohol and petrol attract heavy tax. Basic food and medicine are considered necessities and do not have sales tax added to their price.

When sales tax is levied on goods, it is usually paid by the wholesaler. If there is no wholesaler in the chain of distribution, the manufacturer pays the tax. It is calculated on the sale of products for the month. Then it is paid to the government. However, neither the wholesaler nor the retailer really pays the tax. The wholesaler simply adds it to the price of the goods, when it is sold to the retailer. The retailer then passes it on in the price to the consumer. With most goods, the consumer does not even realise that sales tax has been added to the price.



# Activity 21.1 Read and answer the questions below

1. What is meant by Indirect Tax?		
2. Define Sales Tax		
3. Which types of goods are exempted from tax?		
4. Who actually pays the tax?		

# 2. Customs Duty

Custom or Import Duties, are a tax on imported goods. The rate of tax payable depends on the goods being imported.

- There are no duties on essential items, such as medicine, rice, tinned fish, and books
- There are low duties on machinery, tools, and material needed by the primary industry.
- There is a medium duty on clothes that are imported.
- There are high duties on luxury items such as electrical goods (stereos, televisions, alcohol and tobacco)
- There is a very high duty on motor cars.

Travellers returning from overseas may bring in certain items for personal use, without paying duty. Businesses importing most items, either to use in the business or resell, have to pay custom duty on the full value of their imports. These importers add duty to the price at which they sell the goods. The consumer, again, ends up paying the duty as part of the retail price of the goods.

The amount of import duty payable increased in 1991, because the Bureau of Customs began calculating duty in a different way. In the past, duty was calculated on the Free On Board (FOB) price. This is the wholesale price of goods and the cost of loading them on to ships or planes. Today duty is calculated on the Cost, Insurance and Freight (CIF) price - this price is higher. The cost of transporting goods from overseas, and insurance, are included in the price. Look at this example. You will see how this change has resulted in higher duty being paid.

Turn to the next page to see an example.

#### **Example**

FOB price of goods	K1, 000
Freight charges	200
Insurance	20
CIF price of goods	K1, 220
. 5	

Let us say the rate of duty payable on the goods is 30 percent

2 duty payable on FOB price  $1,000 \times 30/100 = K300$ 

duty payable on CIF price 1,220 x 30/100 = K366

The duty, based on the CIF price, is K366. This is K66 higher than duty based on the FOB price. This change in calculating duty has resulted in price increases on many imported goods.

# 3. Excise Duty

Excise Duty is a tax paid on goods which are made within the country. It is a tax or duty levied on certain products produced in Papua New Guinea. Exercise duty is levied particularly on what are considered luxury goods such as alcohol, tobacco, and petrol. These are a good source of revenue for the government, because price rises do not seem to affect the demand for these much. Only some people reduce their consumption if the price rise is too high.



# Activity 21.2 Read and answer the questions below

1. What is a cu	tom duty?
-----------------	-----------

2. What do the initials FOB and CIF stand for?

3. Which manner of calculating duties results in higher price?

4. What is an excise duty?

5. Calculate the Custom Duty payable using the FOB and CIF Methods.

Use the information below for your calculation.

FOB price of goods K10, 000
Freight charges 2,000
Insurance 200
CIF price of goods K12, 200

If the rate of duty payable on the goods is 40 percent (%)

(a) What is the FOB duty payable?

\_\_\_\_\_

(b) What is the CIF duty payable?

#### 4. Provincial Government Tax

Each provincial government has its own system of collecting this tax from its population. The businesses, individuals and organisations pay some form of tax to the provincial government and in return they also support them by providing security, law and order and some basic facilities for their usage. Each province has its own revenue generating section that is responsible for these monies.

#### 5. Local Council and Urban Authorities

These two organisations do collect taxes from their communities. They provide important services such as garbage collection and water to their communities.. However, they do depend heavily on the national government for most of their funding because it is their obligation to provide basic services through them to the people.

# Tax Exemption

There are certain goods which are not subjected to tax. These goods include basic goods (like tinned fish, rice, sugar) and medicines. The government also allows some firms a break from paying tax for a period of time. Firms that are given a tax exemption include:

- firm setting up in remote areas of the country.
- certain foreign firms that have just arrived in PNG.

#### **Provisional Tax (Advance payment of tax)**

Companies who earn income from business activities are required to make advance payment of tax on their income. This is known as Provisional Tax. Provisional tax ensures that companies pay tax on their business income during the year in which that income is earned. If they do not, they would always be paying tax on their income one year after it had been earned.

Provisional tax payments are based on one company's previous year's income, because the present year's income will not be known until the end of the year. It is assumed that a company's business income will be similar to that earned in the previous year.

Provisional tax is paid in addition to tax on income earned in the previous year. However, a credit is granted for provisional tax paid in the previous year.

Turn to the next page to see an example to understand better.

# **Example**

A sole trader began operating in 2006. Taxable incomes for 2010 – 2013 are as follows

YEAR		TAXABLE INCOME	K
2010			100,000
2011			80,000
2012			120,000
Taxable income for 2010 = K100,000			
Tax payable in 2011	K30,000		
Add provisional tax for 2011			K30,000
Total tax payable – 2011			K60,000
Taxable income for 2011 ( K80 000)			
Tax payable in 2012			
Tax payable in 2011	K 24,000		
Tax payable for 2012	K24,000		
Add provisional tax for 2012	K48,000		
Less credit for provisional tax paid in 2011	K30,000		
Total tax payable for 2012			18,000
Taxable income for 2013 K 120 000			
Tax payable in 2013			120,000
Tax payable in 2012	K 36,000		
Add provisional tax for 2012	K 36,000		
	K 72,000		
Less credit for provisional tax paid in 2011	K 24,000		
Total tax payable for 2013		-	48 000

(N.B: Company tax rate of 30% is applied in the above calculations.)



# Activity 21.3 Read and answer the questions accordingly.

	roundy 2110 record and allowed and queen and gray.	
(1) What is meant by Tax Exemption?		
(2)	What are some goods that are exempted from being taxed?	
(3)	What is a Provisional Tax?	

# Summary:



You have come to the end of Lesson 21. You have learnt that;

- Indirect Tax is a tax where the burden of payment can be shifted to someone else.
- There are three indirect taxes and they are:
  - Sales Ta or Goods and Services Tax (GST)
  - Custom or Import Duty
  - Excise Duty
- Sales Tax (GST) is the tax levied on goods and service.
- Custom Duty is the tax on imported goods
- Exercise Duty is the tax levied on goods produce within the country.
- There are two methods of calculating Custom Duty and they are:
  - Free On Board (FOB)
  - Cost Insurance and Freight (CIF)
- Calculating Custom Duty using the FOB method will result in less tax charged while the CIF method increase the tax charges.
- Tax Exemption refers to certain goods which are not subjected to tax.
- Provisional Tax is the advance payment of tax on their income by businesses. It is adjusted after their total income is made known.

NOW DO PRACTICE EXERCISE 21 ON THE NEXT PAGE



YEAR

2011 2012

# **Practice Exercise 21**

A sole trader began operating in 2010.

Taxable income for that year and following years was:

TAXABLE INCOME (K) 25, 000

40,000

2013	80, 000	
1. Calculate the total 2013.	provisional tax payable a	t 35% for the years 2011, 2012 and

NOW CHECK YOUR WORK. ANSWERS AT THE END OF TOPIC 4

NOW YOU MUST COMPLETE ASSIGNMENT 3 THEN SEND IT TO THE PROVINCIAL CO-ORDINATOR FOR MARKING

# **ANSWERS TO**

# **TOPIC 4**

# **PRACTICE EXERCISES**

# **ANSWERS TO PRACTICE EXERCISES 18-21**

# **Practice Exercise 18**

- 1. The Internal Revenue Commission has been empowered by the government to collect all forms of tax from the working people and businesses.
- 2. It basically means by law of Parliament it is their duty to do the work they have been tasked to do and failure to do so may mean a fine or imprisonment.
- 3. (a) TRUE
  - (b) FALSE
  - (c) TRUE
  - (d) TRUE
- 4. Commissioner General, Commissioner Taxation and Commissioner Services.
  - Commissioner General oversees the whole taxation body.
  - Commissioner Taxation is in charge of all the taxation monies, records, systems in place, auditing and prosecuting.
  - Commissioner Services deals with all the services (recruitment, personnel, IT, education, awareness etc.) to do with Internal Revenue Commission.

# **Practice Exercise 19**

- 1. The Papua New Guinea National Government through IRC.
- 2. The tax rate starts from K300 upward only.
- 3. Four (4)
- 4. To compensate for items used from personal expense like buying stationery
- 5. (a) K76.78 with no dependent
  - (b) No tax will be paid.
  - (c) K76.78

- 1. Tax file also known as GST number is given when the company registers its company name.
- 2. The tax return will show the actual profit made as well as other allowable expenses.
- 3. Its only when the company declares a profit it makes for the year and when dividends are paid to shareholders.
- 4. Companies pay their company tax once a year at end of the year but provisional times are given. This means they can pay the taxes in any three term provided.

Practice Exercise 21	
Net income for 2011 = K25, 000	K
Tax payable on the first K18, 000 from the K25, 000	2 825
Tax on excess K7, 000 (K7, 000 x 30%)	<u>2 100</u>
Total Tax Payable on K25, 000	<u>4 925</u>
Tax payable in 2012:	K
Tax payable for 2011 (refer to above total)	4 925
Add provisional tax for 2011	<u>4 925</u>
Total tax payable	<u>9 850</u>
Net income for 2012 = K40, 000	K
Tax payable on the first K33, 000 from the K40, 000	7 350
Tax on excess K7, 000 (K7, 000 x 30%)	<u>2 100</u>
Total Tax Payable on K25, 000	<u>9 450</u>
Taxable Income for 2012	K
Tax payable for 2011 (refer to above total)	9 450
Add provisional tax for 2009	<u>9 450</u>
	18 900
Less credit for provisional tax paid for 2008	<u>4 925</u>
Total tax payable	<u>13 975</u>
Net income for 2009 = K80, 000	K
Tax payable on the first K70, 000 from the K80, 000	7 350
Tax on excess K10, 000 (K10, 000 x 30%)	3 000
Total Tax Payable on K80, 000	<u>10 350</u>
Tax payable in 2013:	K
Tax payable 2009 (refer to above total)	10 350
Add provisional tax for 2010	<u>10 350</u>
	20 700
Less credit for provisional tax paid for 2009	<u>9 450</u>
Total tax payable	<u>11 250</u>

REVISE TOPIC AND DO TOPIC TEST IN YOUR ASSESSMENT BOOK 4

GR9 BS U2 181 TITLE

# **ANSWERS TO**

# **LESSON ACTIVITIES**

# **LESSON ACTIVITIES –LESSON 1-21**

# Lesson 1: Sole Trader

# Activity 1.1

- (a)
- (i) Joe Trading
- (ii) Jims Trucking
- (iii) Kauka Construction
- (iv) Firmson Second-hand Clothing

# **Activity 1.2**

- (a)
- (i) Peter Yangole
- (ii) Yes, Peter is using another name and not his own.
- (iii) Yes, trading license is required for any business.

# **Activity 1.3**

- (a)
- (i) It is an advantage because the owner makes all the decisions for the business. He can benefit everything from that business.

# **Activity 1.4**

- (a)
- (i) Members can contribute themselves
- (ii) Benefit from major developments in their area
- (iii) Get loans from the other sources like the Rural Development Bank

# **Lesson 2: Partnership**

# **Activity 2.1**

- (a)
- (i) When a partner leaves or dies
- (ii) If there are new partners joining the business
- (b)
- (i) Borrow From Others
- (ii) Sell personal items to pay off the debt
- (iii) Get loans from banks or financial organisation

#### Activity 2.2

Their trucking business made K180, 000 in the first year. Share the profit among the three sisters according to their capital contribution.

Seta K60 000/K150 000 x 100/1 = 40% = K72 000 Veronica K15000/K150 000 x 100/1 = 10% = K18 000 Willien K75 000/K150 000 x 100/1 = 50% = K90 000

# **Lesson 3: Companies**

#### **Activity 3.1**

(a) It registers all companies operating in the country

#### **Activity 3.2**

(a) The shareholders of the business appoint them during the annual general meeting.

# **Activity 3.3**

(a) (i) Receiver collects all debts when the business closes down the business operations (ii) liquidator sell off all assets and pays all the company debts

# **Lessons 4: Informal Business**

# **Activity 4.1**

- (a) betel nut (buai)
- (b) ice block and cold water
- (c) store goods
- (d) garden crops
- (e) second-hand clothes

# **Activity 4.2**

- (a) Pay Goods and services (GST) tax when buying food at the store
- (b) When buying store goods they pay tax
- (c) Other means like hospitals or school fees where government still collect taxes

# **Activity 4.3**

(a) Organised market pay fees, follow operating times, sell allowed goods in specified location and informal markets are found anywhere selling anything, anytime, without paying fees.

# Lesson 5: Role of Government in providing an Economic Framework

#### **Activity 5.1**

- (a) Examples of economic infrastructure include:
- (i) roads,
- (ii) bridges,
- (iii) railways,
- (iv) airports
- (v) harbours,
- (vi) port facilities
- (b) Private firms build offices, and factories; sometimes under contract, they may build roads, airstrips and port facilities.

#### **Activity 5.2**

(a) Examples of skilled labour force are; carpenters, plumbers, construction workers, welders, electricians, accountants, lawyers, teachers, engineers (any acceptable skill labour)

(b) Healthy workers will be stronger and fitter. They will take fewer days off because of illness. An educated workforce will be more skilled and be able to carry out more difficult and complicated task than workers with less training and education.

#### **Activity 5.3**

- (a) The prices of goods and services will increase as a result of inflation
- (b) The people's basic living standard will drop because goods and services will be expensive to the point where the average wage earners cannot afford.
- (c) Soft loans are loans with lower rate of interest.

### Activity 5.4

- (a) The government helps to promote businesses by providing
  - (i) Business Development Officers,
  - (ii) Agriculture Bank Loans, Extension officers
  - (iii) Tax Exemption

# **Activity 5.5**

The commercial activities that the government is directly involved in are;

- (i) airline service,
- (ii) electricity,
- (iii) postal
- (iv) and telecommunication.

# **Lesson 6: Government Regulation of the Private Sector**

# **Activity 6.1**

(a)

(i) Brian Bell

(ii) RH Group of Companies (iv) South Pacific Brewery

(iii)TST group of companies

(v) RD Tuna cannery

#### **Activity 6.2**

- (a) The term business name refers to the registered names of business where other companies are not allowed to use.
- (b)
- (i) Ramu Sugar
- ii) Lae Biscuit
- (iii) Agmark supplies

#### **Activity 6.3**

(a) (i) J Mart Supermarket

(ii) Eliseo Trading

(iii) Hohola Supermarket

(iv) Malaoro supermarket

(any local example accepted)

(b)

(i) meat (iii) insecticides (ii) liquor

(iv) firearms

# **Activity 6.4**

- (a)
- (i) mining companies
- (ii) logging companies
- (vii) shipping companies that do fishing
- (viii) fishing
- (b) Environment refers to everything in the surroundings, e.g trees, sea, sky, animals, people etc

#### **Activity 6.5**

- (a)
- (i) Lead to inflation (rise in prices of goods and services)
- (ii) Lead to hunger (you will not afford to buy essential goods)
- (b) (i) bread, (ii). butter, (iii). flour, (iv). potatoes, (v). meat. 11%, 11%, 50%, 11%.
- (c) The mark up for potatoes is high because the price includes freight/transport cost.

# **Activity 6.6**

- (a) Consumer Affairs Bureau
- (b) The Goods Act
- (c) Consumers Affairs Bureau

# **Lesson 7: Government Department and Statutory Bodies**

# **Activity 7.1**

1.

Government Departments	Role/s			
a) Air Niugini	Operates airline services on both domestic and international routes			
b) Telikom	Provides telecommunication services			
c) PNG Water Board LTD	Ensures that water is provided to all towns and some rural areas.			
d) PNG Power	Distributor and regulator of electricity in the country.			

# Activity 7.2

1. Business Development Officers

These people provide guidance to people who want to set up their own business.

2. Government Loan Guarantee Scheme

This scheme encourages commercial banks to lend money to businesses.

3. Extension officers

They give advice on growing crops and how to raise livestock.

4. Tax exemption

This means that some businesses will not pay tax for a period of time.

5. Trade promotions

The government also help firms to take part in trade fairs and shows in other countries. At trade fairs, products from different countries are displayed to interested customers.

(Accept any two)

# **Lesson 8: Joint Venture**

# **Activity 8.1**

Joint venture	Province
Eg, Pogera	Southern Highlands province
2. OK Tedi Copper Mine	Western Province
3. Misima Gold Mine	Miline Bay
4. Ramu Agro Industries	Madang
5. Higaturu Oil Palm	Popondetta - Oro
6. Ramu Nickel Mine	Madang
7.Tolukuma Gold Mine	Central province

### **Activity 8.2**

- (a) The state can run commercial activities because;
- Some services such as water, electricity and telecommunication are considered to be important to be left to private firms. Private firms might be willing to provide these services only in areas where they can make a profit. They may be unwilling to provide these services in remote areas.
- It is better to have essential services provided by a government monopoly. A private monopoly may charge higher prices, as there would be no competition.
- The state can earn extra income by running profitable commercial activities. As a result fewer taxes need to be raised and less money borrowed
- (b) The state cannot run commercial activities because:
  - The state is less efficient than private firms.
  - Private firms have a monopoly in providing certain services. It is believed that they can provide cheaper services than the government because they are likely to operate more efficiently
  - In other countries state operated businesses often result in failure and a waste of public money. In countries where the state has provided most services, the economy has done very badly. Inefficiency, bad planning and corruption have resulted. On the other hand, the most successful countries have been those that the state plays a very small part in businesses.

# **Lesson 9: Public Enterprising and Enterprising**

# **Activity 9.1**

(a) (i) Monian Limited

(iii) Brian Bell & Co Limited

(ii) Best Buy

(iv) Coco Cola Limited

(c) A type of business that has a separate legal entity from its owners and shareholders. This means that the people will only lose their contribution (cost of buying shares) towards the business if it fails.

# **Activity 9.2**

(a)

- (i) the selling of shares to the general public
- (ii) pay dividends to the shareholders
- (iii) employing workers
- (iv) running of the company

# **Activity 9.3**

(a)

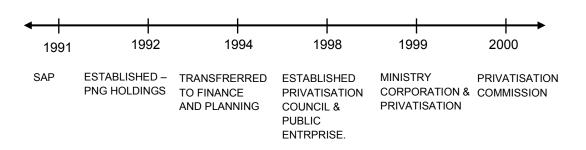
Advantages	Disadvantages
Shareholders are not individually liable for debts of the company. They have limited liability.	Company tax is high
Companies can raise large sums of capital on their own. Banks and other financial institutions prefer investing in successful companies.	Dividends for shareholders are subject to another tax called dividend withholding tax.
A company may have an unlimited life time of its own. This is because it has a legal existence, separate from its owner.	Companies have extra responsibilities as part of the requirement. It cost extra money to fulfill such responsibilities.

# **Activity 9.4**

- (a) (i) Post and Telecommunication
  - (ii) Elcom

- (iii) PNG Harbours Board
- (iv) PNG Water Board Ltd

(b)



(c)

Advantages	Disadvantages	
Allow competitions	Heavily taxed	
Businesses are now privately owned	State owned assets are in the hands of a few (businessmen)	
Government only responsible for governing and providing services.	Richer gets richer and poorer gets poorer. Only few benefit.	

#### **Activity 9.5**

- (a) (i) To focus on government affairs rather than businesses
  - (ii) Increase efficiency in government
  - (iii). To create competition among the private run businesses.

(b)

Advantages	Disadvantages
Allow businesses to compete	Companies will be heavily taxed
Businesses can be privately owned	State owned assets are in the hands of few (businessmen)
The Government can only monitor the goods and services providers.	The richer will get richer and the poor get poorer. Very few will benefit from the business activities.

# **Lesson 10: Non –Profit Organisation**

#### **Activity 10.1**

- (a) A non-profit organisation is a not for profit service organisation and provides goods and services to the community but a business is operated to make profit for its owners.
  - (b) Not for Profit Organisations get their funding from members, supporters, donors and grants too.

# **Activity 10.2**

(a)

- Marie Stoppes
- HOPEWORLD WIDE PNG
- IGAT HOPE
- RED CROSS
- World Vision
- ADVENTIST DISASTER RELIEF AGENCY (ADRA)
- Volunteer Service Overseas (VSO)
- Nature Conservation
- CARE
- OXFAM
- ST.JOHN

( any local examples are be accepted)

# Lesson 11: Central Bank

# **Activity 11.1**

- (a) Bank of Papua New Guinea
- (b) After independence in 1975
- (c) Port Moresby, National Capital District

# **Activity 11.2**

(a)

- (i) To increase the interest rate of money in the country.
- (ii) Lending policy

(b) Lending policy regulates and monitors all Savings and Loans Societies in the country.

# **Activity 11.3**

- (a)
- (i) It controls the value of the kina against other countries currencies
- (ii)It handles the bank accounts of governments departments. It is a government's bank
- (iii) It controls the transfer of money in and out of the country
- (ix) It keeps track of the country's public debt and arranges for these debts to be repaid
- (x) It holds the country's reserves of the gold and foreign currency. (Every country holds a certain amount of foreign reserves, in a form of gold and foreign currencies.)
- (xi) It issues licenses to gold buyers and other financial institutions
- (vii) It regulates and monitors all Savings and Loans Societies in the country

#### Lesson 12: Commercial Banks

#### **Activity 12.1**

- (a) Private investors.
- (b) Profit making organization.
- (c) To earn profit

# **Activity 12.2**

- (a).
- (i). Westpac,
- (ii) Bank South Pacific
- (iii). ANZ.
- (iv). May Bank.
- (b)
- (i) Provide cheque system of making payments.
- (ii) Provide savings accounts in which people can deposit money and receive interest
- (iii) Lend money on overdraft and on fixed term.

#### **Activity 12.3**

- (a) (i) Payment by direct transfer from one account to another account
  - (ii) Safe custody of valuables and valuable documents
- (b) (i) They have necessary resources such as capital to maintain their operations in the county.
- (ii) Their larger branch network can enable banking services to reach many people in the country.

# **Lesson 13: Banking Services**

# **Activity 13.1**

(a)

- (i) To save money
- (ii) To get bank loans
- (iii) To withdraw money to purchase goods and services

# **Activity 13.2**

(b)

(i) Drawer: The person who operates (owns) the cheque account

(ii) Drawee: The bank that operates the cheque account

(iii) Payee: The person receiving the cheque

# **Activity 13.3**

(a)

- (i)To provide a service to its customers
- (ii) To make profit from the interest repayments collected from the loans
- (iii) To help its customers to be able to pay for expensive items such as; buying a house, car, going on a holiday, paying school fees,

(b)

- (i) Overdraft: This is when the bank agrees to allow a customer to withdraw more than what is actually in the account. This amount is then paid
- (iii) Term Deposit: When a customer decides to save money in an account for a fixed period of time such as 3 months to 5 years and is not allowed to make withdrawals until the specified time, interest is added on this account during this time.

# Lesson 14: National Development Bank

#### **Activity 14.1**

The name of the National Development Bank kept changing to suit the functions and services that it was providing, and to which group of people it was providing the services for.

#### Activity14.2

Sample answers:

- Fish farming
- Vegetable farming
- · Cassava farming in Rigo
- Taro farming in Rigo
- · Piggery, poultry, cattle
- Trade store
- · Coffee, cocoa, oil palm, rice- small scale growing and processing
- Passenger transport service
- Bakeries
- Handicrafts and artifacts
- Timber milling
- Wood working and joinery

- Painting
- Crocodile farming
- Tourism

#### **Activity 14.3**

Answer will depend on each student; where they live and their needs within their environment: sample answers

- Agriculture loans
- Commercial loans
- Microfinance loans
- Fisheries Credits

# **LESSON 15: FINANCE COMPANIES**

# Activity 15.1:

- FinCorp Finance Corporation Ltd because my parents made a school fee loan to pay my school fees.
- Life Insurance Company Ltd because my mother contributes a portion of her salary and she does talk about it so I know.
- Welfare funds Ltd- because my mother contributes a portion of her salary and she does talk about it so I do know.
- Kwila Insurance Company Ltd because my father made loans for my school fees (sample answer only. Accept any reasonable answer)

# Activity 15.2:

Imagine you deposited K8000 with Fincorp Finance Company and they gave 4 % interest for every 3months. How much would you earn onto of your K5000 in one year?

```
Formula: Interest = Principal x Time x Rate
= K5000 x 3/12 x 4/100
= K50
```

So, you have  $K50 \times 4 \text{ terms} = K200$ 

Finally, you will earn K200 onto your K5000

#### **Activity 15.3**

You are using and benefitting from the item while at the same time you are paying installments for the item.

# **Lesson 16: Savings and Societies**

#### **Activity 16.1**

- (a) Alekano Savings & Loan Society Limited
- (b) Goroka, Eastern Highland Province
- (c)
- Savings account
- Fixed term deposit
- Personal loans
- Business loans



# **Activity 16.2**

Savings and Loan Societies	For which group of people or workers is this Savings and Loan Society formed	
OTML (Ok Tedi) Savings and Loan Society	OK Tedi Mine Limited Workers	
2. Teachers Savings and Loan Society	Teachers / other public services	
3. Nasfund Contributors Saving and Loan Society	Nasfund Contributors	
4. Air Niugini Savings and Loan Society	Air Niugini Workers	
5. Police Savings and Loan Society	Police men and women, department workers	
6. Kokopo Savings and Loan Society	Kokopo people	
7. Eastern Highlands Savings and Loan Society	Eastern Highlands People	

# **Activity 16.3**

Sample answer:

- To pay school fees
- To pay airline tickets
- To contribute to funeral expenses
- To purchase materials to build a house
- To purchase a motor vehicle
- To purchase stock for a trade store
- To purchase household items like a refrigerator, a sewing machine, a computer set and many more

#### **Activity 16.4**

(a) 20/100 x K500 = K100 You will make a shopping of K100

(b) K100 + K10 = K110 will be spent K500 - K110 = K390 You will receive K390

# **Lesson 17: Retirement Benefit Scheme**

# **Activity 17.1**

(1)

- (a) The retirement age limit for public servants is 55 years
- (b)The workers will rely on their savings to settle at home.

# **Activity 17.2**

- (1) (a) National Superfund Limited
  - (b) Nambawan Superannuation Fund Limited
- (2) (You can write the names of any organisations that you are familiar with)
  - (a) Steamships trading, (c) Health Department

(b) Police Department,

(d) Lihir Gold Mine

# **Activity 17.3**

- (1) Member's savings are invested on buying shares on stock markets, real estates, and invest in other business activities.
- (2) In case of the employee dies, his savings can be given to the beneficiaries on record.

# Activity 17.4

- (1) A Retirement Savings Account is a Savings Account for retired workers.
- (2) Only retired workers and those who have been without employment continuously for the 12 months period are eligible to open a retirement savings account.

#### **Activity 17.5**

- (1) It keeps money safe and grows interest on good investments.
- (2) There is provision in the superfund to support the worker from his savings.

#### Lesson 18: **Internal Revenue Commission**

#### **Activity 18.1**

- (1) Internal Revenue Commission
- (2) If I lived in Oro Province the nearest IRC Office would be in Popondetta Town

# **Activity 18.2**

- (a)
- (i) counterfeit products
- (ii) underwater mining
- (iii) farming that will damage the environment (any that is current)
- (b) Progressive taxing is a taxing system where the higher the income, the more tax one has to pay.

# **Lesson 19: Income Tax**

#### **Activity 19.1**

1. A partnership consisted of three members who had a net profit of K120 000. The members agreed to share the profit equally.

(a) Calculate how much profit will be received by each partner after the payment of tax.

Each partner receives K40 000 (K120 000 / 3 = K40 000)

(b) How much tax was paid by each partner?

Tax Payable on K40 000

 Tax on K33 000
 6920

 Tax on excess 27,000
 9450

 Total tax on K40 000
 16 370

# **Activity 19.2**

- 1. It collects income tax to fund its annual budget.
- 2. The cleaner does not pay any tax because the salary is below K7000 per year.

# **Activity 19.3**

(1) It is important for employees to complete a Tax Declaration for taxing purposes. This means that if an employee who has dependents fills in one, he or she can pay less because he takes care of more people.

# **Lesson 20: Company Tax**

#### **Activity 20.1**

- (1). Lima Traders Pty Ltd K45 000 K45 000 x 30% = K13 5000
- (2). Delta Transport Ltd K350 000 K350 000 x 30% = K 105 000
- (3). Berth a foreign company operating in PNG K 500 000 K500 000 x 40% = K200 000

**Activity 20.2** Lae Bakeries Ltd has a taxable income of K240 000. It distributes K150 000 of its profit (after payment of company tax) to its shareholders.

(a). Calculate the amount of company tax and dividend withholding tax paid. Company tax of K240 000 ( K240 000 x 30%) = K72000

Dividend Withholding Tax of K150 000 (K150 000 x 17%) = K25 500 (b).

To find this we subtract K150 000 – K25 500 and the amount distributed was K124 500

# Activity 20. 3

(a).

The tax paid by the shareholder who receives dividend from companies at a rate of 17%.

(b).

Dividends paid to exempt bodies such as sporting or charitable bodies, superannuation funds established for the benefit of everyone.

# **Lesson 21: Other Taxes**

#### **Activity 21.1**

- 1. Indirect Taxes are taxes where the burden of payment can be shifted to someone else. The person (or business) on whom the tax is levied does not actually end up paying it.
- 2. Sales Tax is a tax levied on certain goods and services.
- 3. Basic foods (like milk, rice, tinned fish,), and medicines.
- 4. The customers who purchase the goods.

# **Activity 21.2**

- 1. Customs Duty is a tax or a duty on certain imported goods
- 2. FOB stands for Free On Board while CIF stands for Cost, Insurance and Freight.
- 3. CIF (Cost Insurance and freight) Method
- 4. Exercise Duty is a tax or duty levied on certain products produced in Papua New Guinea
- 5. (a). FOB duty payable 10,000 x 40 / 100 = K4, 000 (b). CIF duty payable 12,000 x 40 / 100 = K4, 800

#### **Activity 21.3**

- (1). Tax Exemption are goods and income which are not subjected to tax.
- (2). Basic goods and medicine are exempted from tax
- (3). Provisional Tax is a method of paying tax in advance

NOW YOU MUST DO TOPIC TEST IN YOUR ASSIGNMENT 2 BOOK

GR 9 BS U2 196 VACANT PAGE

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- IRC (PNG) LIMITED WEBSITE

# STUDENTS AND MARKER'S COMMENTS

STUDENT'S COMMENTS:
Sign:Date: //

MARK	ER'S COMMENTS:	
ı		1
	Student's Mark	
	Student's Mark Student's Percentage	
	Marker's Name	
	Marker's Signature :	
	Date	:

# **FODE PROVINCIAL CENTRES CONTACTS**

PC NO.	FODE PROVINCIAL CENTRE	ADDRESS	PHONE/FAX	CUG PHONES	CONTACT	PERSON	CUG PHONE
1	DARU	P. O. Box 68, Daru	6459033	72228146	The Coordinator	Senior Clerk	72229047
2	KEREMA	P. O. Box 86, Kerema	6481303	72228124	The Coordinator	Senior Clerk	72229049
3	CENTRAL	C/- FODE HQ	3419228	72228110	The Coordinator	Senior Clerk	72229050
4	ALOTAU	P. O. Box 822, Alotau	6411343 / 6419195	72228130	The Coordinator	Senior Clerk	72229051
5	POPONDETTA	P. O. Box 71, Popondetta	6297160 / 6297678	72228138	The Coordinator	Senior Clerk	72229052
6	MENDI	P. O. Box 237, Mendi	5491264 / 72895095	72228142	The Coordinator	Senior Clerk	72229053
7	GOROKA	P. O. Box 990, Goroka	5322085 / 5322321	72228116	The Coordinator	Senior Clerk	72229054
8	KUNDIAWA	P. O. Box 95, Kundiawa	5351612	72228144	The Coordinator	Senior Clerk	72229056
9	MT HAGEN	P. O. Box 418, Mt. Hagen	5421194 / 5423332	72228148	The Coordinator	Senior Clerk	72229057
10	VANIMO	P. O. Box 38, Vanimo	4571175 / 4571438	72228140	The Coordinator	Senior Clerk	72229060
11	WEWAK	P. O. Box 583, Wewak	4562231/ 4561114	72228122	The Coordinator	Senior Clerk	72229062
12	MADANG	P. O. Box 2071, Madang	4222418	72228126	The Coordinator	Senior Clerk	72229063
13	LAE	P. O. Box 4969, Lae	4725508 / 4721162	72228132	The Coordinator	Senior Clerk	72229064
14	KIMBE	P. O. Box 328, Kimbe	9835110	72228150	The Coordinator	Senior Clerk	72229065
15	RABAUL	P. O. Box 83, Kokopo	9400314	72228118	The Coordinator	Senior Clerk	72229067
16	KAVIENG	P. O. Box 284, Kavieng	9842183	72228136	The Coordinator	Senior Clerk	72229069
17	BUKA	P. O. Box 154, Buka	9739838	72228108	The Coordinator	Senior Clerk	72229073
18	MANUS	P. O. Box 41, Lorengau	9709251	72228128	The Coordinator	Senior Clerk	72229080
19	NCD	C/- FODE HQ	3230299 Ext 26	72228134	The Coordinator	Senior Clerk	72229081
20	WABAG	P. O. Box 259, Wabag	5471114	72228120	The Coordinator	Senior Clerk	72229082
21	HELA	P. O. Box 63, Tari	73197115	72228141	The Coordinator	Senior Clerk	72229083
22	JIWAKA	c/- FODE Hagen		72228143	The Coordinator	Senior Clerk	72229085

#### **SUBJECT AND GRADE TO STUDY**

GRADE LEVELS	SUBJECTS/COURSES		
	1. English		
	2. Mathematics		
Grades 7 and 8	3. Personal Development		
	4. Social Science		
	5. Science		
	6. Making a Living		
	1. English		
	2. Mathematics		
	3. Personal Development		
Grades 9 and 10	4. Science		
	5. Social Science		
	6. Business Studies		
	7. Design and Technology- Computing		
	<ol> <li>English – Applied English/Language&amp;</li> </ol>		
	Literature		
	2. Mathematics - Mathematics A / Mathematics		
	В		
Grades 11 and 12	3. Science – Biology/Chemistry/Physics		
	4. Social Science –		
	History/Geography/Economics		
	5. Personal Development		
	6. Business Studies		
	7. Information & Communication Technology		

# **REMEMBER:**

- For Grades 7 and 8, you are required to do all six (6) courses.
- For Grades 9 and 10, you must study English, Mathematics, Science, Personal Development, Social Science and Commerce. Design and Technology-Computing is optional.
- For Grades 11 and 12, you are required to complete seven (7) out of thirteen (13) courses to be certified.

Your Provincial Coordinator or Supervisor will give you more information regarding each subject.

#### **GRADES 11 & 12 COURSE PROGRAMMES**

No	Science	Humanities	Business
1	Applied English	Language & Literature Language & Literature/A	
2	Mathematics A/B	Mathematics A/B	Mathematics A/B
3	Personal Development	Personal Development	Personal Development
4	Biology	Biology/Physics/Chemistry	Biology/Physics/Chemistry
5	Chemistry/ Physics	Geography	Economics/Geography/History
6	Geography/History/Economics	History / Economics	Business Studies
7	ICT	ICT	ICT

Notes: You must seek advice from your Provincial Coordinator regarding the recommended courses in each stream. Options should be discussed carefully before choosing the stream when enrolling into Grade 11. FODE will certify for the successful completion of seven subjects in Grade 12.

	CERTIFICATE IN MATRICULATION STUDIES					
No	Compulsory Courses	Optional Courses				
1	English 1	Science Stream: Biology, Chemistry, Physics				
2	English 2	Social Science Stream: Geography, Intro to Economics				
		and Asia and the Modern World				
3	Mathematics 1					
4	Mathematics 2					
5	History of Science &					
	Technology					

#### **REMEMBER:**

You must successfully complete 8 courses: 5 compulsory and 3 optional.

TABLE A, B, and C. TABLE A from 1July 2012 Where an employee's salary or wage is less than or equal to K385 per fortnight

	Tortingit						
	Column 1		Column 2	Column 3	Column 4		
	Salary per 2012	fortnight in					
	Exceeding	Not exceeding					
1	0	1	0.22	0.42	0.00		
3	1	3	0.66	1.26	0.00		
	3	5	1.10	2.10	0.00		
4	5	7	1.54	2.94	0.00		
5	7	9	1.98	3.78	0.00		
6	9	11	2.42	4.62	0.00		
7	11	13	2.86	5.46	0.00		
8	13	15	3.30	6.30	0.00		
9	15	17	3.74	7.14	0.00		
10	17	19	4.18	7.98	0.00		
11	19	21	4.62	8.82	0.00		
12	21	23	5.06	9.66	0.00		
13	23	25	5.50	10.50	0.00		
14	25	27	5.94	11.34	0.00		
15	27	29	6.38	12.18	0.00		
16	29	31	6.82	13.02	0.00		
17	31	33	7.26	13.86	0.00		
18	33	35	7.70	14.70	0.00		
19	35	37	8.14	15.54	0.00		
20	37	39	8.58	16.38	0.00		
21	39	41	9.02	17.22	0.00		
22	41	43	9.46	18.06	0.00		
23	43	45	9.90	18.90	0.00		
24	45	47	10.34	19.74	0.00		
25	47	49	10.78	20.58	0.00		
26	49	51	11.22	21.42	0.00		
27	51	53	11.66	22.26	0.00		
28	53	55	12.10	23.10	0.00		
29	55	57	12.54	23.94	0.00		
30	57	59	12.98	24.78	0.00		
31	59	61	13.42	25.62	0.00		
32	61	63	13.86	26.46	0.00		
33	63	65	14.30	27.30	0.00		

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34	65	67	14.74	28.14	APPENDI
35	67	69	15.18	28.98	0.00
36	69	71	15.62	29.82	0.00
37	71	73	16.06	30.66	0.00
38	73	75	16.50	31.50	0.00
39	75	77	16.94	32.34	0.00
40	77	79	17.38.	33.18	0.00
41	79	81	17.82	34.02	0.00
42	81	83	18.26	34.86	0.00
43	83	85	18.70	35.70	0.00
44	85	87	19.14	36.54	0.00
45	87	89	19.58	37.38	0.00
46	89	91	20.02	38.22	0.00
47	91	93	20.46	39.06	0.00
48	93	95	20.90	39.90	0.00
49	95	97	21.34	40.74	0.00
50	97	99	21.78	41.58	0.00
51	99	101	22.22	42.42	0.00
52	101	103	22.66	43.26	0.00
53	103	105	23.10	44.10	0.00
54	105	107	23.54	44.94	0.00
55	107	109	23.98	45.78	0.00
56	107	110	24.42	46.62	0.00
57	111	113	24.86	47.46	0.00
58	113	115	25.30	48.30	0.00
50 59	115	117	25.74	49.14	0.00
60	117	119	26.18	49.14	0.00
61	119	121			
62			26.62 27.06	50.82 51.66	0.00
63	121 123	123 125	27.50	52.50	0.00
		125			
64	125		27.94	53.34	0.00
65	127	129	28.38	54.18	0.00
66	129	131	28.82	55.02	0.00
67	131	133	29.26	55.86	0.00
68	133	135	29.70	56.70	0.00
69	135	137	30.14	57.54	0.00
70	137	139	30.58	58.38	0.00
71	139	141	31.02	59.22	0.00
72	141	143	31.46	60.06	0.00
73	143	145	31.90	60.90	0.00
74 75	145	147	32.34	61.74	0.00
75	147	149	32.78	62.58	0.00
76	149	151	33.22	63.42	0.00
77	151	153	33.66	64.26.	0.00
78	153	155	34.10	65.10	0.00
79	155	157	34.54	65.94	0.00
80	157	159	34.98	66.78	0.00
81	159	161	35.42	67.62	0.00

82	159	161	35.42	67.62	0.00
83	161	163	35.86	68.46	0.00

GR 9	BS 03				APPENDI
84	163	165	36.30	69.30	0.00
85	165	167	36.74	70.14	0.00
86	167	169	37.62	71.82	0.00
87	169	171	38.06	72.66	0.00
88	171	173	38.50	73.50	0.00
89	173	175	38.94	74.34	0.00
90	175	177	39.38	75.18	0.00
91	177	179	39.82	76.02	0.00
92	179	181	40.26	76.86	0.00
93	181	183	40.70	77.70	0.00
94	183	185	41.14	78.54	0.00
95	185	187	41.58	79.38	0.00
96	187	189	42.02	80.22	0.00
97	189	191	42.46	81.06	0.00
98	191	193	42.90	81.90	0.00
99	193	195	43.34	82.74	0.00
100	195	197	43.78	83.58	0.00
101	197	199	44.22	84.42	0.00
102	199	201	44.66	85.26	0.00
103	201	203	45.10	86.10	0.00
104	203	205	45.54	86.94	0.00
105	205	207	45.98	87.78	0.00
106	207	209	46.42	88.62	0.00
107	209	211	46.86	89.46	0.00
108	211	213	47.30	90.30	0.00
109	213	215	47.74	91.14	0.00
110	215	217	48.18	91.98	0.00
111	217	219	48.62	92.82	0.00
112	217	221	49.06	93.66	0.00
113	221	223	49.50	94.50	0.00
114	223	225	49.94	95.34	0.00
115	225	227	50.38	96.18	0.00
116					
	227	229	50.82	97.02	0.00
117	229	231	51.26	97.86	0.00
118	231	233	51.70	98.70	0.00
119	233	235	52.14	99.54	0.00
120	235	237	52.58	100.38	0.00
121	237	239	53.02	101.22	0.00
122	239	241	53.46	102.06	0.00
123	241	243	53.90	102.90	0.00
124	243	245	54.34	103.74	0.00
125	245	247	54.78	104.58	0.00
126	247	249	55.22	105.42	0.00
127	249	251	55.66	106.26	0.00
128	251	253	56.10	107.10	0.00
129	253	255	56.54	107.94	0.00
130	255	257	56.98	108.78	0.00

131	257	259	57.42	109.62	0.00
132	259	261	57.86	110.46	0.00

0000	00.110		4		ADDENDLY
GR 9 E		262	E0 20	111 20	APPENDIX
133	261	263	58.30	111.30	0.00
134	263	265	58.74	112.14	0.00
135	265	267	59.18	112.98	0.00
136	267	269	59.62	113.82	0.00
137	269	271	60.06	114.66	0.00
138	271	273	60.50	115.50	0.00
139	273	275	60.94	116.34	0.00
140	275	277	61.38	117.18	0.00
141	277	279	61.82	118.02	0.00
142	279	281	62.26	118.86	0.00
143	281	283	62.70	119.70	0.00
144	283	285	63.14	120.54	0.00
145	285	287	63.58	121.38	0.00
146	287	289	64.02	122.22	0.00
147	289	291	64.46	123.06	0.00
148	291	293	64.90	123.90	0.00
149	293	295	65.34	124.74	0.00
150	295	297	65.78	125.58	0.00
151	297	299	66.22	126.42	0.00
152	299	301	66.66	127.26	0.00
153	301	303	67.10	128.10	0.00
154	303	305	67.54	128.94	0.00
155	305	307	67.98	129.78	0.00
156	307	309	68.42	130.62	0.00
157	309	311	68.86	131.46	0.00
158	311	313	69.30	132.30	0.00
159	313	315	69.74	133.14	0.00
160	315	317	70.18	133.98	0.00
161	317	319	70.62	134.82	0.00
162	319	321	71.06	135.66	0.00
163	321	323	71.50	136.50	0.00
164	323	325	71.94	137.34	0.00
165	325	327	72.38	138.18	0.00
166	327	329	72.82	139.02	0.00
167	329	331	73.26	139.86	0.00
168	331	333	73.70	104.70	0.00
169	333	335	74.14	141.54	0.00
170	335	337	74.57	142.38	0.00
171	337	339	74.58	142.38	0.00
172	339	341	75.02	143.22	0.00
173	341	343	75.46	144.06	0.00
174	343	345	75.90	144.90	0.00
175	345	347	76.34	145.74	0.00
176	347	349	76.78	146.58	0.00
177	349	351	77.22	147.42	0.00
178	351	353	77.66	146.26	0.00
170	JJ 1	000	11.00	170.20	0.00

179	353	355	78.10	149.10	0.00
180	355	357	78.54	149.94	0.00
181	357	359	78.98	150.78	0.00
182	359	361	79.42	151.62	0.00
183	361	363	79.86	152.46	0.00
184	363	365	80.30	153.30	0.00
185	365	367	80.74	154.14	0.00
186	367	369	81.18	154.98	0.00
187	369	371	81.62	155.82	0.00
188	371	373	82.06	156.66	0.00
189	373	375	82.50	157.50	0.00
190	375	377	82.94	158.34	0.00
191	377	379	83.38	159.18	0.00
192	379	381	83.82	160.02	0.00
193	381	383	84.26	160.86	0.00
194	383	385	84.70	161.70	0.00

TABLE B
Where an employee's salary or wage exceeds K385 but is less than K900 per fortnight

	COL	UMN 1	COLUMN 2	COLUMN 3	COLUN	/N 4		
	SAL	ARY PER	NON	NO	WHER	E DEC	LARATIO	ON IS
	FOR	TNIGHT	RESIDENT	DECLARA	LODGED			
	IN 2	012	TAX	TION IS				
			PAYERS	LODGED				
					NIL	1	2	3 +
195	385	387	85.14	162.54	0.00	0.00	0.00	0.00
196	387	389	85.58	163.38	0.00	0.00	0.00	0.00
197	389	391	86.02	164.22	0.00	0.00	0.00	0.00
198	391	393	86.46	165.06	0.15	0.00	0.00	0.00
199	393	395	86.90	165.90	0.59	0.00	0.00	0.00
200	395	397	87.34	166.74	1.03	0.00	0.00	0.00
201	397	399	87.78	167.58	1.47	0.00	0.00	0.00
202	399	401	88.22	168.42	1.19	0.18	0.00	0.00
203	401	403	88.66	169.26	2.35	0.62	0.00	0.00
204	403	405	89.10	170.10	2.79	1.06.	0.00	0.00
205	405	407	89.54	170.94	3.23	1.50	0.35	0.00
206	407	409	89.98	171.78	3.67	1.94	0.79	0.00
207	409	411	90.42	172.62	4.11	2.38	1.23	0.07
208	411	413	90.86	173.46	4.55	2.82	1.67	0.51
209	413	415	91.30	174.30	4.99	3.26	2.11	0.95
210	415	417	91.74	175.14	5.43	3.70	2.55	1.39
211	417	419	92.18	175.98	5.87	4.14	2.99	1.83
212	419	421	92.62	176.82	6.31 4.58 3.43		2.27	
213	421	423	93.06	177.66	6.75	5.02	3.87	2.71

GR 9 BS	: 113			6				APPENDIX
214	423	425	93.50	178.50	7.19	5.46	4.31	3.15
215	425	427	93.94	179.34	7.63	5.90	4.75	3.59
216	427	429	94.38	180.18	8.07	6.34	5.19	4.03
217	429	431	94.82	181.02	8.51	6.78	5.63	4.47
218	431	433	95.26	181.86	8.95	7.22	6.07	4.91
219	433	435	95.70	182.70	9.39	7.66	6.51	5.35
220	435	437	96.14	183.54	9.83	8.10	6.95	5.79
221	437	439	96.58	184.38	10.27	8.54	7.39	6.23
222	439	441	97.02	185.22	10.71	8.98	7.83	6.67
223	441	443	97.46	186.06	11.15	9.42	8.27	7.11
224	443	445	97.90	186.90	11.59	9.85	8.69	7.54
225	445	447	98.34	187.74	12.03	10.23	9.02	7.82
226	447	449	98.78	188.58	12.47	10.60	9.35	8.11
227	449	451	99.22	189.42	12.91	10.98	9.68	8.39
228	451	453	99.66	190.26	13.35	11.35	10.01	8.68
229	453	455	100.10	191.10	13.79	11.72	10.34	8.97
230	455	457	100.10	191.94	14.23	12.10	10.67	9.25
231	457	459	100.98	192.78	14.67	12.47	11.00	9.54
232	459	461	101.42	193.62	15.11	12.85	11.33	9.82
233	461	463	101.42	194.46	15.55	13.22	11.66	10.11
234	463	465	102.30	195.30	15.99	13.59	11.99	10.40
235	465	467	102.74	196.14	16.43	13.97	12.32	10.48
236	467	469	103.18	196.98	16.87	14.34	12.65	10.97
237	469	471	103.62	197.82	17.31	14.72	12.98	11.25
238	471	473	104.06	198.66	17.75	15.09	13.31	11.54
239	473	475	104.50	199.50	18.19	15.46	13.64	11.83
240	475	477	104.94	200.34	18.63	15.84	13.97	12.11
241	477	479	105.38	202.18	19.07	16.21	14.30	12.40
242	479	481	105.82	202.02	19.51	16.59	14.63	12.68
243	481	483	106.26	202.86	19.95	16.96	14.96	1297
244	483	485	106.70	203.70	20.39	17.33	15.29	13.26
245	485	487	107.14	204.54	20.83	17.71	15.62	13.54
246	487	489	107.58	205.38	21.27	18.08	15.95	13.83
247	489	491	108.02	206.22	21.71	18.46	16.28	14.11
248	491	493	108.46	207.06	22.15	18.83	16.61	14.40
249	493	495	108.90	207.90	22.59	19.20	16.94	14.69
250	495	497	109.34	208.74	23.03	19.58	17.27	14.97
251	497	499	109.78	209.58	23.47	19.95	17.60	15.26
252	499	501	110.22	210.42	23.91	20.33	17.93	15.54
253	501	503	110.66	211.26	24.35	20.70	18.26	15.83
254	503	505	111.10	212.10	24.74	21.07	18.59	16.12
255	505	507	111.54	212.94	25.23	21.45	18.92	16.40
256	507	509	111.98	213.78	25.67	21.82	19.25	16.69
257	509	511	112.42	214.62	26.11	22.20	19.58	16.97
258	511	513	112.86	215.4	26.55	26.57	19.91	17.26
				• • •	= 5.55			

								/ II LINDIX
259	513	515	113.30	216.30	26.99	22.94	19.91	17.26
260	515	517	113.74	217.14	27.43	23.32	20.57	17.83
261	517	519	114.18	217.98	27.87	23.69	20.90	18.12
262	519	521	114.62	218.82	28.31	24.07	21.23	18.40
263	521	523	115.06	219.66	28.75	24.44	21.56	18.69
264	523	525	115.50	220.50	29.19	24.81	21.89	18.98
265	525	527	115.94	221.34	29.63	25.19	22.22	19.26
266	527	529	116.38	222.18	30.07	25.56	22.55	19.55
267	529	531	116.82	223.02	30.51	25.94	22.88	19.83
268	531	533	117.26	223.86	30.95	26.31	23.21	20.12
269	533	535	117.70	224.70	31.39	26.68	23.54	20.41
270	535	537	118.14	225.54	31.83	27.06	23.87	20.69
271	537	539	118.58	226.38	32.27	27.43	24.20	20.98
272	539	541	119.02	227.22	32.71	27.81	24.53	21.26
273	541	543	119.46	228.06	33.15	28.18	24.86	21.55
274	543	545	119.90	228.90	33.59	28.55	25.19	21.84
275	545	547	120.34	229.74	34.03	28.93	25.52	22.12
276	547	549	120.75	230.58	34.47	29.30	25.85	22.41
277	549	551	121.22	231.42	34.91	29.68	26.18	22.69
278	551	553	121.66	232.26	35.35	30.05	26.51	22.98
279	553	555	122.10	233.10	35.79	30.42	26.84	23.27
280	555	557	122.54	233.94	36.23	30.80	27.17	23.55
281	557	559	122.98	234.78	36.67	31.17	27.50	23.84
282	559	561	123.42	235.62	37.11	31.55	27.83	24.12
283	561	563	123.86	236.46	37.55	31.92	28.16	24.41
284	563	565	124.30	237.30	37.99	32.29	28.49	24.70
285	565	567	124.74	238.14	38.43	32.67	28.82	24.98
286	567	569	125.18	238.98	38.87	33.04	29.15	25.27
287	569	571	125.62	239.82	39.31	33.42	29.48	25.55
288	571	573	126.06	240.66	39.75	33.79	29.81	25.84
289	573	575	126.50	241.50	40.19	34.16	30.14	26.13
290	575	577	126.94	242.34	40.63	34.54	30.47	26.41
291	577	579	127.38	243.18	41.07	34.91	30.80	26.70
292	579	581	127.82	244.02	41.51	35.29	31.13	26.98
293	581	583	128.26	244.86	41.95	35.66	31.46	27.27
294	583	585	128.70	245.70	42.39	36.03	31.79	27.56
295	585	587	129.14	246.54	42.83	36.41	32.12	27.84
296	587	589	129.58	247.38	43.27	36.78	32.45	28.13
297	589	591	130.02	248.22	43.71	37.16	32.78	28.41
298	591	593	130.46	249.06	44.15	37.53	33.11	28.70
299	593	595	130.90	249.90	44.59	37.90	33.44	28.99
300	595	597	131.34	250.74	45.03	38.28	33.77	29.27
301	597	599	131.78	251.58	45.47	38.65	34.10	29.56
302	599	601	132.22	252.42	45.91	39.03	34.43	29.84
303	601	603	132.66	253.26	46.35	39.40	34.76	30.13
304	603	605	133.10	254.10	46.79	39.77	35.09	30.42
305	605	607	133.54	254.94	47.23	40.15	35.42	30.70
	1 2 2 2				5			1 55.75

306         607         609         133.98         255.78         47.67         40.52         35.75         30.99           307         609         611         134.42         256.62         48.11         40.90         36.08         31.27           308         611         613         134.86         257.46         48.55         41.27         36.41         31.56           309         613         615         135.30         258.30         48.99         41.64         36.74         31.85           310         615         617         135.74         259.14         49.43         42.02         37.07         32.13           311         617         619         621         136.62         260.82         50.31         42.77         37.73         32.70           313         621         623         137.60         261.66         50.75         43.14         38.06         32.99           314         623         625         137.50         262.50         51.19         43.51         38.39         38.72         33.88           315         625         627         137.94         263.94         51.63         43.89         38.72         33.85									
308         611         613         134.86         257.46         48.55         41.27         36.41         31.56           309         613         615         135.30         258.30         48.99         41.64         36.74         31.85           310         615         617         135.74         259.14         49.43         42.02         37.07         32.13           311         617         619         136.18         259.98         49.87         42.39         37.40         32.42           312         619         621         136.62         260.82         50.31         42.77         37.73         32.70           313         621         623         137.50         262.50         51.19         43.51         38.08         32.99           314         623         625         137.50         262.50         51.19         43.51         38.39         33.28           315         625         627         137.94         263.94         51.63         43.89         38.72         33.56           316         627         629         138.38         264.18         52.07         44.26         39.05         33.85         341.33           3									
309         613         615         135.30         258.30         48.99         41.64         36.74         31.85           310         615         617         135.74         259.14         49.43         42.02         37.07         32.13           311         617         619         621         136.62         260.82         50.31         42.77         37.73         32.70           313         621         623         137.06         261.66         50.75         43.14         38.06         32.99           314         623         625         137.50         262.50         51.19         43.51         38.39         33.28           315         625         627         137.94         263.94         51.63         43.89         38.72         33.56           316         627         629         138.38         264.18         52.07         44.26         39.05         33.85           317         629         631         138.82         265.02         52.51         44.64         39.38         34.13           318         631         633         139.70         266.70         53.39         45.38         40.04         34.71           320<	307	609		134.42	256.62	48.11	40.90	36.08	_
310         615         617         135.74         259.14         49.43         42.02         37.07         32.13           311         619         619         136.18         259.98         49.87         42.39         37.40         32.42           312         619         621         136.62         260.82         50.31         42.77         37.73         32.70           313         621         623         137.06         261.66         50.75         43.14         38.06         32.99           314         623         625         137.50         262.50         51.19         43.51         38.39         33.28           315         625         627         137.94         263.94         51.63         49.89         38.72         33.56           316         627         629         138.38         264.18         52.07         44.26         39.05         33.85           317         629         631         138.82         265.02         52.51         44.64         39.38         34.13           318         631         633         139.26         265.86         52.95         45.01         39.71         34.42           319         633<	308	611	613	134.86	257.46	48.55	41.27	36.41	31.56
311         617         619         136.18         259.98         49.87         42.39         37.40         32.42           312         619         621         136.62         260.82         50.31         42.77         37.73         32.70           313         621         623         137.06         261.66         50.75         43.14         38.06         32.99           314         623         625         137.50         262.50         51.19         43.51         38.39         33.28           315         625         627         137.94         263.94         51.63         43.89         38.72         33.56           316         627         629         138.38         264.18         52.07         44.26         39.05         33.85           317         629         631         138.82         265.02         52.51         44.64         39.38         34.13           318         631         633         139.26         265.86         52.95         45.01         39.71         34.42           319         633         635         139.70         266.70         53.39         45.38         40.04         34.71           320         635<	309	613	615	135.30	258.30	48.99	41.64	36.74	31.85
312         619         621         136.62         260.82         50.31         42.77         37.73         32.70           313         621         623         137.06         261.66         50.75         43.14         38.06         32.99           314         623         625         137.50         262.50         51.19         43.51         38.39         33.26           315         625         627         137.94         263.94         51.63         43.89         38.72         33.56           316         627         629         138.38         264.18         52.07         44.26         39.05         33.85           317         629         631         138.82         265.02         52.51         44.64         39.38         34.13           318         631         633         139.26         265.86         52.95         45.01         39.71         34.42           319         633         635         139.70         266.70         53.39         45.38         40.04         34.71           320         635         637         140.14         267.54         63.83         45.76         40.33         35.55           322         639<	310	615	617	135.74	259.14	49.43	42.02	37.07	32.13
313         621         623         137.06         261.66         50.75         43.14         38.06         32.99           314         623         625         137.50         262.50         51.19         43.51         38.39         33.28           315         625         627         137.94         263.94         51.63         43.89         38.72         33.56           316         627         629         138.38         264.18         52.07         44.26         39.05         33.85           317         629         631         138.82         265.02         52.51         44.64         39.38         34.13           318         631         633         139.20         265.86         52.95         45.01         39.71         34.42           319         633         635         139.70         266.70         53.39         45.38         40.04         34.71           320         635         637         140.14         267.54         63.83         45.76         40.37         34.99           321         637         639         140.58         268.38         54.27         46.13         40.70         35.28           322         639<	311	617	619	136.18	259.98	49.87	42.39	37.40	32.42
314         623         625         137.50         262.50         51.19         43.51         38.39         33.28           315         625         627         137.94         263.94         51.63         43.89         38.72         33.56           316         627         629         138.38         264.18         52.07         44.26         39.05         33.85           317         629         631         138.82         265.02         52.51         44.64         39.93         34.42           319         633         635         139.70         266.70         53.39         45.38         40.04         34.71           320         635         637         140.14         267.54         63.83         45.76         40.37         34.99           321         637         639         140.14         267.54         63.83         45.76         40.37         34.99           321         637         639         140.14         267.54         63.83         45.76         40.37         34.99           322         639         641         141.02         269.22         54.71         46.51         41.03         35.66           322         639<	312	619	621	136.62	260.82	50.31	42.77	37.73	32.70
315         625         627         137.94         263.94         51.63         43.89         38.72         33.56           316         627         629         138.38         264.18         52.07         44.26         39.05         33.85           317         629         631         138.82         265.02         52.51         44.64         39.38         34.13           318         631         633         139.70         266.70         53.39         45.38         40.04         34.71           320         635         637         140.14         267.54         63.83         45.76         40.37         34.99           321         637         639         140.58         268.38         54.27         46.13         40.70         35.28           322         639         641         141.02         269.22         54.71         46.51         41.03         35.56           322         639         641         141.46         270.06         55.15         46.88         41.33         35.66           324         643         645         141.90         270.90         55.59         47.25         41.69         36.42           326         647<	313	621	623	137.06	261.66	50.75	43.14	38.06	32.99
316         627         629         138.38         264.18         52.07         44.26         39.05         33.85           317         629         631         138.82         265.02         52.51         44.64         39.38         34.13           318         631         633         139.26         265.86         52.95         45.01         39.71         34.42           319         633         635         139.70         266.70         53.39         45.38         40.04         34.71           320         635         637         140.14         267.54         63.83         45.76         40.37         34.99           321         637         639         140.58         268.38         54.27         46.13         40.70         35.28           322         639         641         141.02         269.22         54.71         46.51         41.03         35.56           323         641         643         141.46         270.06         55.15         46.88         41.36         35.85           324         643         645         141.90         270.90         55.59         47.25         41.69         36.14           326         647<	314	623	625	137.50	262.50	51.19	43.51	38.39	33.28
317         629         631         138.82         265.02         52.51         44.64         39.38         34.13           318         631         633         139.26         265.86         52.95         45.01         39.71         34.42           319         633         635         139.70         266.70         53.39         45.38         40.04         34.71           320         635         637         140.14         267.54         63.83         45.76         40.37         34.99           321         637         639         140.58         268.38         54.27         46.13         40.70         35.28           322         639         641         141.02         269.22         54.71         46.51         41.03         35.56           323         641         643         141.46         270.06         55.15         46.88         41.36         35.85           324         643         645         141.90         270.90         55.59         47.25         41.69         36.14           325         645         647         142.34         271.74         56.03         47.63         42.02         36.42           326         657<	315	625	627	137.94	263.94	51.63	43.89	38.72	33.56
318         631         633         139.26         265.86         52.95         45.01         39.71         34.42           319         633         635         139.70         266.70         53.39         45.38         40.04         34.71           320         635         637         140.14         267.54         63.83         45.76         40.37         34.99           321         637         639         140.58         268.38         54.27         46.13         40.70         35.28           322         639         641         141.02         269.22         54.71         46.51         41.03         35.56           323         641         643         141.46         270.06         55.15         46.88         41.36         35.85           324         643         645         141.90         270.90         55.59         47.25         41.69         36.14           325         645         647         142.34         271.74         56.03         47.63         42.02         36.42           326         647         649         142.78         272.58         56.47         48.00         42.35         36.71           327         649<	316	627	629	138.38	264.18	52.07	44.26	39.05	33.85
319         633         635         139.70         266.70         53.39         45.38         40.04         34.71           320         635         637         140.14         267.54         63.83         45.76         40.37         34.99           321         637         639         140.58         268.38         54.27         46.13         40.70         35.28           322         639         641         141.02         269.22         54.71         46.51         41.03         35.56           323         641         643         141.46         270.06         55.15         46.88         41.36         35.85           324         643         645         141.90         270.90         55.59         47.25         41.69         36.14           325         645         647         142.34         271.74         56.03         47.63         42.02         36.42           326         647         649         142.78         272.58         56.47         48.00         42.35         36.71           327         649         651         143.22         273.42         56.91         48.38         42.68         36.99           328         651<	317	629	631	138.82	265.02	52.51	44.64	39.38	34.13
320         635         637         140.14         267.54         63.83         45.76         40.37         34.99           321         637         639         140.58         268.38         54.27         46.13         40.70         35.28           322         639         641         141.02         269.22         54.71         46.51         41.03         35.56           323         641         643         141.46         270.06         55.15         46.88         41.36         35.85           324         643         645         141.90         270.90         55.59         47.25         41.69         36.14           325         645         647         142.34         271.74         56.03         47.63         42.02         36.42           326         647         649         142.78         272.58         56.47         48.00         42.35         36.71           327         649         651         143.22         273.42         56.91         48.38         42.68         36.99           328         651         653         143.66         274.26         57.35         48.75         43.01         37.85           331         657<	318	631	633	139.26	265.86	52.95	45.01	39.71	34.42
321         637         639         140.58         268.38         54.27         46.13         40.70         35.28           322         639         641         141.02         269.22         54.71         46.51         41.03         35.56           323         641         643         141.46         270.06         55.15         46.88         41.36         35.85           324         643         645         141.90         270.90         55.59         47.25         41.69         36.14           325         645         647         142.34         271.74         56.03         47.63         42.02         36.42           326         647         649         142.78         272.58         56.47         48.00         42.35         36.71           327         649         651         143.22         273.42         56.91         48.38         42.68         36.99           328         651         653         143.66         274.26         57.35         48.75         43.01         37.28           329         653         655         144.10         275.10         57.79         49.12         43.34         37.57           330         655<	319	633	635	139.70	266.70	53.39	45.38	40.04	34.71
322         639         641         141.02         269.22         54.71         46.51         41.03         35.56           323         641         643         141.46         270.06         55.15         46.88         41.36         35.85           324         643         645         141.90         270.90         55.59         47.25         41.69         36.14           325         645         647         142.34         271.74         56.03         47.63         42.02         36.42           326         647         649         142.78         272.58         56.47         48.00         42.35         36.71           327         649         651         143.22         273.42         56.91         48.38         42.68         36.99           328         651         653         143.66         274.26         57.35         48.75         43.01         37.28           329         653         655         144.10         275.10         57.79         49.12         43.34         37.57           330         655         657         144.98         276.78         58.67         49.87         44.00         38.14           332         659<	320	635	637	140.14	267.54	63.83	45.76	40.37	34.99
323         641         643         141.46         270.06         55.15         46.88         41.36         35.85           324         643         645         141.90         270.90         55.59         47.25         41.69         36.14           325         645         647         142.34         271.74         56.03         47.63         42.02         36.42           326         647         649         142.78         272.58         56.47         48.00         42.35         36.71           327         649         651         143.22         273.42         56.91         48.38         42.68         36.99           328         651         653         143.66         274.26         57.35         48.75         43.01         37.28           329         653         655         144.10         275.10         57.79         49.12         43.34         37.57           330         655         657         144.54         275.94         58.23         49.50         43.67         37.85           331         657         659         144.98         276.78         58.67         49.87         44.00         38.14           332         659<	321	637	639	140.58	268.38	54.27	46.13	40.70	35.28
324         643         645         141.90         270.90         55.59         47.25         41.69         36.14           325         645         647         142.34         271.74         56.03         47.63         42.02         36.42           326         647         649         142.78         272.58         56.47         48.00         42.35         36.71           327         649         651         143.22         273.42         56.91         48.38         42.68         36.99           328         651         653         143.66         274.26         57.35         48.75         43.01         37.28           329         653         655         144.10         275.10         57.79         49.12         43.34         37.57           330         655         657         144.54         275.94         58.23         49.50         43.67         37.85           331         657         659         144.98         276.78         58.67         49.87         44.00         38.14           332         659         661         145.42         277.62         59.11         50.25         44.33         38.42           333         661<	322	639	641	141.02	269.22	54.71	46.51	41.03	35.56
324         643         645         141.90         270.90         55.59         47.25         41.69         36.14           325         645         647         142.34         271.74         56.03         47.63         42.02         36.42           326         647         649         142.78         272.58         56.47         48.00         42.35         36.71           327         649         651         143.22         273.42         56.91         48.38         42.68         36.99           328         651         653         143.66         274.26         57.35         48.75         43.01         37.28           329         653         655         144.10         275.10         57.79         49.12         43.34         37.57           330         655         657         144.54         275.94         58.23         49.50         43.67         37.85           331         657         659         144.98         276.78         58.67         49.87         44.00         38.14           332         659         661         145.42         277.62         59.11         50.25         44.33         38.42           333         661<	323	641	643	141.46	270.06	55.15	46.88	41.36	35.85
326         647         649         142.78         272.58         56.47         48.00         42.35         36.71           327         649         651         143.22         273.42         56.91         48.38         42.68         36.99           328         651         653         143.66         274.26         57.35         48.75         43.01         37.28           329         653         655         144.10         275.10         57.79         49.12         43.34         37.57           330         655         657         144.54         275.94         58.23         49.50         43.67         37.85           331         657         659         144.98         276.78         58.67         49.87         44.00         38.14           332         659         661         145.42         277.62         59.11         50.25         44.33         38.42           333         661         663         145.86         278.46         59.55         50.62         44.66         38.71           334         663         665         146.74         280.14         60.43         51.37         45.32         39.28           336         667<		643	645	141.90	270.90	55.59	47.25	41.69	36.14
327         649         651         143.22         273.42         56.91         48.38         42.68         36.99           328         651         653         143.66         274.26         57.35         48.75         43.01         37.28           329         653         655         144.10         275.10         57.79         49.12         43.34         37.57           330         655         657         144.54         275.94         58.23         49.50         43.67         37.85           331         657         659         144.98         276.78         58.67         49.87         44.00         38.14           332         659         661         145.42         277.62         59.11         50.25         44.33         38.42           333         661         663         145.86         278.46         59.55         50.62         44.66         38.71           334         663         665         146.74         280.14         60.43         51.37         45.32         39.28           336         667         669         147.18         280.98         60.87         51.74         45.65         39.57           337         669<	325	645	647	142.34	271.74	56.03	47.63	42.02	36.42
328         651         653         143.66         274.26         57.35         48.75         43.01         37.28           329         653         655         144.10         275.10         57.79         49.12         43.34         37.57           330         655         657         144.54         275.94         58.23         49.50         43.67         37.85           331         657         659         144.98         276.78         58.67         49.87         44.00         38.14           332         659         661         145.42         277.62         59.11         50.25         44.33         38.42           333         661         663         145.86         278.46         59.55         50.62         44.66         38.71           334         663         665         146.30         279.30         59.99         50.99         44.99         39.00           335         665         667         146.74         280.14         60.43         51.37         45.32         39.28           336         667         669         147.18         280.98         60.87         51.74         45.65         39.57           337         669<	326	647	649	142.78	272.58	56.47	48.00	42.35	36.71
329         653         655         144.10         275.10         57.79         49.12         43.34         37.57           330         655         657         144.54         275.94         58.23         49.50         43.67         37.85           331         657         659         144.98         276.78         58.67         49.87         44.00         38.14           332         659         661         145.42         277.62         59.11         50.25         44.33         38.42           333         661         663         145.86         278.46         59.55         50.62         44.66         38.71           334         663         665         146.30         279.30         59.99         50.99         44.99         39.00           335         665         667         146.74         280.14         60.43         51.37         45.32         39.28           336         667         669         147.18         280.98         60.87         51.74         45.65         39.57           337         669         671         147.62         281.82         61.31         52.12         45.98         39.85           338         671<	327	649	651	143.22	273.42	56.91	48.38	42.68	36.99
330         655         657         144.54         275.94         58.23         49.50         43.67         37.85           331         657         659         144.98         276.78         58.67         49.87         44.00         38.14           332         659         661         145.42         277.62         59.11         50.25         44.33         38.42           333         661         663         145.86         278.46         59.55         50.62         44.66         38.71           334         663         665         146.30         279.30         59.99         50.99         44.99         39.00           335         665         667         146.74         280.14         60.43         51.37         45.32         39.28           336         667         669         147.18         280.98         60.87         51.74         45.65         39.57           337         669         671         147.62         281.82         61.31         52.12         45.98         39.85           338         671         673         148.06         282.66         61.75         52.49         46.31         40.14           339         673<	328	651	653	143.66	274.26	57.35	48.75	43.01	37.28
331         657         659         144.98         276.78         58.67         49.87         44.00         38.14           332         659         661         145.42         277.62         59.11         50.25         44.33         38.42           333         661         663         145.86         278.46         59.55         50.62         44.66         38.71           334         663         665         146.30         279.30         59.99         50.99         44.99         39.00           335         665         667         146.74         280.14         60.43         51.37         45.32         39.28           336         667         669         147.18         280.98         60.87         51.74         45.65         39.57           337         669         671         147.62         281.82         61.31         52.12         45.98         39.85           338         671         673         148.06         282.66         61.75         52.49         46.31         40.14           339         673         675         148.50         283.50         62.19         52.86         46.64         40.43           340         675<	329	653	655	144.10	275.10	57.79	49.12	43.34	37.57
332         659         661         145.42         277.62         59.11         50.25         44.33         38.42           333         661         663         145.86         278.46         59.55         50.62         44.66         38.71           334         663         665         146.30         279.30         59.99         50.99         44.99         39.00           335         665         667         146.74         280.14         60.43         51.37         45.32         39.28           336         667         669         147.18         280.98         60.87         51.74         45.65         39.57           337         669         671         147.62         281.82         61.31         52.12         45.98         39.85           338         671         673         148.06         282.66         61.75         52.49         46.31         40.14           339         673         675         148.50         283.50         62.19         52.86         46.64         40.43           340         675         679         148.94         284.34         62.63         53.24         46.97         40.71           341         679<	330	655	657	144.54	275.94	58.23	49.50	43.67	37.85
333         661         663         145.86         278.46         59.55         50.62         44.66         38.71           334         663         665         146.30         279.30         59.99         50.99         44.99         39.00           335         665         667         146.74         280.14         60.43         51.37         45.32         39.28           336         667         669         147.18         280.98         60.87         51.74         45.65         39.57           337         669         671         147.62         281.82         61.31         52.12         45.98         39.85           338         671         673         148.06         282.66         61.75         52.49         46.31         40.14           339         673         675         148.50         283.50         62.19         52.86         46.64         40.43           340         675         679         148.94         284.34         62.63         53.24         46.97         40.71           341         679         681         149.38         285.18         63.07         53.61         47.30         41.00           342         681<	331	657	659	144.98	276.78	58.67	49.87	44.00	38.14
334         663         665         146.30         279.30         59.99         50.99         44.99         39.00           335         665         667         146.74         280.14         60.43         51.37         45.32         39.28           336         667         669         147.18         280.98         60.87         51.74         45.65         39.57           337         669         671         147.62         281.82         61.31         52.12         45.98         39.85           338         671         673         148.06         282.66         61.75         52.49         46.31         40.14           339         673         675         148.50         283.50         62.19         52.86         46.64         40.43           340         675         679         148.94         284.34         62.63         53.24         46.97         40.71           341         679         681         149.38         285.18         63.07         53.61         47.30         41.00           342         681         683         149.82         286.02         63.51         53.99         47.63         41.28           343         683<	332	659	661	145.42	277.62	59.11	50.25	44.33	38.42
335         665         667         146.74         280.14         60.43         51.37         45.32         39.28           336         667         669         147.18         280.98         60.87         51.74         45.65         39.57           337         669         671         147.62         281.82         61.31         52.12         45.98         39.85           338         671         673         148.06         282.66         61.75         52.49         46.31         40.14           339         673         675         148.50         283.50         62.19         52.86         46.64         40.43           340         675         679         148.94         284.34         62.63         53.24         46.97         40.71           341         679         681         149.38         285.18         63.07         53.61         47.30         41.00           342         681         683         149.82         286.02         63.51         53.99         47.63         41.28           343         683         685         150.26         286.86         63.95         54.36         47.96         41.57           344         685<	333	661	663	145.86	278.46	59.55	50.62	44.66	38.71
336         667         669         147.18         280.98         60.87         51.74         45.65         39.57           337         669         671         147.62         281.82         61.31         52.12         45.98         39.85           338         671         673         148.06         282.66         61.75         52.49         46.31         40.14           339         673         675         148.50         283.50         62.19         52.86         46.64         40.43           340         675         679         148.94         284.34         62.63         53.24         46.97         40.71           341         679         681         149.38         285.18         63.07         53.61         47.30         41.00           342         681         683         149.82         286.02         63.51         53.99         47.63         41.28           343         683         685         150.26         286.86         63.95         54.36         47.96         41.57           344         685         687         150.70         287.70         64.39         54.73         48.29         41.86           345         687<	334	663	665	146.30	279.30	59.99	50.99	44.99	39.00
337         669         671         147.62         281.82         61.31         52.12         45.98         39.85           338         671         673         148.06         282.66         61.75         52.49         46.31         40.14           339         673         675         148.50         283.50         62.19         52.86         46.64         40.43           340         675         679         148.94         284.34         62.63         53.24         46.97         40.71           341         679         681         149.38         285.18         63.07         53.61         47.30         41.00           342         681         683         149.82         286.02         63.51         53.99         47.63         41.28           343         683         685         150.26         286.86         63.95         54.36         47.96         41.57           344         685         687         150.70         287.70         64.39         54.73         48.29         41.86           345         687         689         151.14         288.54         64.83         55.11         48.62         42.14           346         689<	335	665	667	146.74	280.14	60.43	51.37	45.32	39.28
338         671         673         148.06         282.66         61.75         52.49         46.31         40.14           339         673         675         148.50         283.50         62.19         52.86         46.64         40.43           340         675         679         148.94         284.34         62.63         53.24         46.97         40.71           341         679         681         149.38         285.18         63.07         53.61         47.30         41.00           342         681         683         149.82         286.02         63.51         53.99         47.63         41.28           343         683         685         150.26         286.86         63.95         54.36         47.96         41.57           344         685         687         150.70         287.70         64.39         54.73         48.29         41.86           345         687         689         151.14         288.54         64.83         55.11         48.62         42.14           346         689         691         151.58         289.38         65.27         55.48         48.95         42.43           347         691<	336	667	669	147.18	280.98	60.87	51.74	45.65	39.57
339         673         675         148.50         283.50         62.19         52.86         46.64         40.43           340         675         679         148.94         284.34         62.63         53.24         46.97         40.71           341         679         681         149.38         285.18         63.07         53.61         47.30         41.00           342         681         683         149.82         286.02         63.51         53.99         47.63         41.28           343         683         685         150.26         286.86         63.95         54.36         47.96         41.57           344         685         687         150.70         287.70         64.39         54.73         48.29         41.86           345         687         689         151.14         288.54         64.83         55.11         48.62         42.14           346         689         691         151.58         289.38         65.27         55.48         48.95         42.43           347         691         693         152.46         291.06         66.15         56.23         49.61         43.00	337	669	671	147.62	281.82	61.31	52.12	45.98	39.85
340         675         679         148.94         284.34         62.63         53.24         46.97         40.71           341         679         681         149.38         285.18         63.07         53.61         47.30         41.00           342         681         683         149.82         286.02         63.51         53.99         47.63         41.28           343         683         685         150.26         286.86         63.95         54.36         47.96         41.57           344         685         687         150.70         287.70         64.39         54.73         48.29         41.86           345         687         689         151.14         288.54         64.83         55.11         48.62         42.14           346         689         691         151.58         289.38         65.27         55.48         48.95         42.43           347         691         693         152.02         290.22         65.71         55.86         49.28         42.71           348         693         695         152.46         291.06         66.15         56.23         49.61         43.00	338	671	673		282.66	61.75		46.31	
341       679       681       149.38       285.18       63.07       53.61       47.30       41.00         342       681       683       149.82       286.02       63.51       53.99       47.63       41.28         343       683       685       150.26       286.86       63.95       54.36       47.96       41.57         344       685       687       150.70       287.70       64.39       54.73       48.29       41.86         345       687       689       151.14       288.54       64.83       55.11       48.62       42.14         346       689       691       151.58       289.38       65.27       55.48       48.95       42.43         347       691       693       152.02       290.22       65.71       55.86       49.28       42.71         348       693       695       152.46       291.06       66.15       56.23       49.61       43.00	339	673	675	148.50	283.50	62.19		46.64	40.43
342     681     683     149.82     286.02     63.51     53.99     47.63     41.28       343     683     685     150.26     286.86     63.95     54.36     47.96     41.57       344     685     687     150.70     287.70     64.39     54.73     48.29     41.86       345     687     689     151.14     288.54     64.83     55.11     48.62     42.14       346     689     691     151.58     289.38     65.27     55.48     48.95     42.43       347     691     693     152.02     290.22     65.71     55.86     49.28     42.71       348     693     695     152.46     291.06     66.15     56.23     49.61     43.00									
343     683     685     150.26     286.86     63.95     54.36     47.96     41.57       344     685     687     150.70     287.70     64.39     54.73     48.29     41.86       345     687     689     151.14     288.54     64.83     55.11     48.62     42.14       346     689     691     151.58     289.38     65.27     55.48     48.95     42.43       347     691     693     152.02     290.22     65.71     55.86     49.28     42.71       348     693     695     152.46     291.06     66.15     56.23     49.61     43.00	341	679	681	149.38	285.18	63.07	53.61	47.30	
344     685     687     150.70     287.70     64.39     54.73     48.29     41.86       345     687     689     151.14     288.54     64.83     55.11     48.62     42.14       346     689     691     151.58     289.38     65.27     55.48     48.95     42.43       347     691     693     152.02     290.22     65.71     55.86     49.28     42.71       348     693     695     152.46     291.06     66.15     56.23     49.61     43.00	342	681	683	149.82	286.02	63.51	53.99	47.63	41.28
345     687     689     151.14     288.54     64.83     55.11     48.62     42.14       346     689     691     151.58     289.38     65.27     55.48     48.95     42.43       347     691     693     152.02     290.22     65.71     55.86     49.28     42.71       348     693     695     152.46     291.06     66.15     56.23     49.61     43.00	343	683	685	150.26	286.86	63.95	54.36	47.96	41.57
346     689     691     151.58     289.38     65.27     55.48     48.95     42.43       347     691     693     152.02     290.22     65.71     55.86     49.28     42.71       348     693     695     152.46     291.06     66.15     56.23     49.61     43.00	344	685	687		287.70	64.39	54.73	48.29	41.86
347     691     693     152.02     290.22     65.71     55.86     49.28     42.71       348     693     695     152.46     291.06     66.15     56.23     49.61     43.00	345	687	689	151.14	288.54	64.83	55.11	48.62	42.14
348         693         695         152.46         291.06         66.15         56.23         49.61         43.00	346	689	691	151.58	289.38	65.27	55.48	48.95	42.43
	347	691	693		290.22	65.71	55.86	49.28	42.71
349         695         697         152.90         291.90         66.59         56.60         49.94         43.29	348	693	695	152.46		66.15		49.61	
	349	695	697	152.90	291.90	66.59	56.60	49.94	43.29

650         667         699         153.34         292.74         66.79         56.77         50.09         43.42           351         699         701         154.32         293.58         67.39         57.28         50.54         43.81           352         701         703         154.92         294.42         67.99         57.79         50.99         44.20           353         703         705         155.52         295.26         68.59         58.30         51.44         44.59           354         705         707         156.12         296.01         69.79         59.32         52.34         45.37           356         709         711         157.32         297.78         70.39         59.83         52.79         45.76           357         711         713         115.92         298.62         70.99         60.34         45.76           358         713         715         158.52         298.62         70.99         60.35         53.69         46.54           359         715         717         719         159.12         300.30         72.19         61.36         54.14         46.93           360         721 <th>GR 9 BS</th> <th>112</th> <th></th> <th></th> <th>9</th> <th></th> <th></th> <th></th> <th>APPENDIX</th>	GR 9 BS	112			9				APPENDIX
351         699         701         154.32         293.58         67.39         57.28         50.54         43.81           352         701         703         154.92         294.42         67.99         57.79         50.99         44.20           354         705         705         155.52         295.26         68.59         58.30         51.44         44.59           355         707         709         156.12         296.04         69.79         59.32         52.34         45.37           356         709         711         157.32         297.78         70.39         59.83         52.79         45.76           357         711         713         157.92         299.46         71.59         60.34         53.24         46.15           358         713         715         158.52         299.46         71.59         60.85         53.69         44.54         46.54           359         715         717         159.12         300.14         72.99         60.85         53.69         46.54         46.54           360         717         719         159.72         301.14         72.79         61.87         54.59         47.32			699	153.34	292.74	66.79	56.77	50.09	
352         701         703         154.92         294.42         67.99         57.79         50.99         44.20           353         705         707         156.12         296.10         69.19         58.30         51.44         44.59           355         707         709         156.72         296.94         69.79         59.32         52.34         45.37           356         709         711         157.32         297.78         70.39         59.83         52.79         45.76           356         713         715         158.52         299.46         71.59         60.85         53.69         46.54           358         713         715         158.52         299.46         71.59         60.85         53.69         46.54           359         715         717         159.12         300.30         72.19         61.36         54.14         46.93           360         717         719         159.27         301.14         72.79         61.87         54.59         47.32           361         719         721         160.32         301.98         73.39         62.38         55.49         48.49           362         721<					1	+	+		+
353         703         705         155.52         295.26         68.59         58.30         51.44         44.59           354         705         707         156.12         296.04         69.79         58.31         51.89         44.98           355         707         709         156.72         296.94         69.79         59.32         52.34         45.76           357         711         713         157.92         298.62         70.99         60.34         53.24         46.15           358         713         715         158.52         299.46         71.59         60.35         53.69         46.54           358         713         715         158.52         299.46         71.59         60.35         53.69         46.54           360         717         719         159.72         301.14         72.79         61.87         54.59         47.32           361         719         721         160.32         301.98         73.39         62.89         55.49         48.10           362         721         723         160.92         302.82         73.99         62.89         55.49         48.10           363         725<				_	<u> </u>			+	-
354         705         707         156.12         296.10         69.19         58.81         51.89         44.98           355         707         709         156.72         296.94         69.79         59.32         52.34         45.37           356         709         711         157.32         297.78         70.39         59.83         52.79         45.76           357         711         713         157.92         298.62         70.99         60.34         53.24         46.15           358         713         715         158.52         299.46         71.59         60.85         53.69         46.54           369         715         717         159.12         300.30         72.19         61.86         54.14         46.93           360         717         719         159.72         301.14         72.79         61.87         54.14         46.93           361         719         721         160.32         301.98         73.39         62.38         55.49         48.19           362         721         723         166.52         303.66         74.59         63.40         55.94         48.49           362         727<									
355         707         709         156.72         296.94         69.79         59.32         52.34         45.37           356         709         711         157.32         297.78         70.39         59.83         52.79         45.76           357         711         713         157.92         298.62         70.99         60.34         53.24         46.15           358         713         715         158.52         299.46         71.59         60.85         53.69         46.54           359         715         717         159.12         300.30         72.19         61.36         54.14         46.93           360         717         719         159.72         301.14         72.79         61.87         54.59         47.71           361         719         721         160.32         301.98         73.39         62.38         55.49         48.10           362         721         723         160.92         302.82         73.99         62.89         55.49         48.10           363         723         725         161.52         303.60         74.59         63.40         55.94         48.49           366         729<					+				
356         709         711         157.32         297.78         70.39         59.83         52.79         45.76           357         711         713         157.92         298.62         70.99         60.34         53.24         46.15           358         713         715         158.52         299.46         71.59         60.85         53.69         46.54           359         715         717         159.12         300.30         72.19         61.36         54.14         46.93           360         717         719         159.72         301.14         72.79         61.87         54.59         47.32           361         719         721         160.32         301.98         73.39         62.38         55.04         47.71           362         721         723         160.92         302.82         73.99         62.89         55.49         48.49           363         723         725         161.52         303.66         74.59         63.40         55.94         48.49           364         725         731         163.32         306.18         76.39         64.42         56.84         49.27           366         727<									_
357         711         713         157.92         298.62         70.99         60.34         53.24         46.15           358         713         715         158.52         299.46         71.59         60.85         53.69         46.54           360         717         719         159.72         301.14         72.79         61.87         54.59         47.32           361         719         721         160.32         301.98         73.39         62.38         55.04         47.71           362         721         723         160.92         302.82         73.99         62.89         55.49         48.10           363         723         725         161.52         303.66         74.59         63.40         55.94         48.49           364         725         727         162.12         304.50         75.19         63.91         56.39         48.88           365         727         729         162.72         305.34         75.79         64.42         56.84         49.27           366         729         731         163.32         306.18         76.39         65.44         57.74         50.05           368         733<					<u> </u>				_
358         713         715         158.52         299.46         71.59         60.85         53.69         46.54           359         715         717         159.12         300.30         72.19         61.36         54.14         46.93           360         717         719         159.72         301.14         72.79         61.87         54.59         47.32           361         719         721         160.32         301.98         73.39         62.38         55.04         47.71           362         721         723         160.92         302.82         73.99         62.89         55.49         48.10           363         723         725         162.12         304.50         75.19         63.91         56.34         48.79           364         725         727         162.72         305.34         75.79         64.42         56.84         49.27           366         729         731         163.32         307.02         76.99         65.44         57.74         50.05           367         731         733         163.92         307.02         76.99         65.44         57.74         50.05           368         733<									
359         715         717         159.12         300.30         72.19         61.36         54.14         46.93           360         717         719         159.72         301.14         72.79         61.87         54.59         47.32           361         719         721         160.32         301.98         73.39         62.38         55.04         47.71           362         721         723         160.92         302.82         73.99         62.89         55.49         48.10           363         723         725         161.52         303.66         74.59         63.40         55.94         48.49           364         725         727         162.12         304.50         75.19         63.40         55.94         48.49           365         727         729         162.72         305.34         75.79         64.42         56.84         49.27           366         729         731         163.32         306.18         76.39         64.42         56.84         49.27           367         731         733         163.92         307.02         76.99         65.44         57.74         50.05           368         733<					+				
360         717         719         159.72         301.14         72.79         61.87         54.59         47.32           361         719         721         160.32         301.98         73.39         62.38         55.04         47.71           362         721         723         160.92         302.82         73.99         62.89         55.49         48.10           363         723         725         161.52         303.66         74.59         63.40         55.94         48.49           364         725         727         162.12         304.50         75.19         63.91         56.39         48.88           365         727         729         162.72         305.34         75.79         64.42         56.84         49.27           366         729         731         163.32         307.02         76.99         65.44         57.74         50.05           368         733         735         166.12         307.86         77.59         65.95         58.19         50.44           369         735         737         138         166.72         309.54         78.79         66.95         58.19         50.42           371<				_	<u> </u>				
361         719         721         160.32         301.98         73.39         62.38         55.04         47.71           362         721         723         160.92         302.82         73.99         62.89         55.49         48.10           363         723         725         161.52         303.66         74.59         63.40         55.94         48.49           364         725         727         162.12         304.50         75.19         63.91         56.39         48.88           365         727         729         162.72         305.34         75.79         64.42         56.84         49.27           366         729         731         163.32         306.18         76.39         64.93         57.29         49.66           367         731         733         163.92         307.02         76.99         65.95         58.19         50.05           368         733         735         164.52         307.86         77.59         65.95         58.19         50.44           369         735         737         165.12         308.50         78.19         66.46         58.64         50.83           370         737<				_	<u> </u>				-
362         721         723         160.92         302.82         73.99         62.89         55.49         48.10           363         723         725         161.52         303.66         74.59         63.40         55.94         48.49           364         725         727         162.12         304.50         75.19         66.31         56.83         48.89           366         727         729         162.72         305.34         75.79         64.42         56.84         49.27           366         729         731         163.32         306.18         76.39         64.93         57.29         49.66           367         731         733         163.92         307.02         76.99         65.44         57.74         50.05           368         733         735         165.12         308.70         78.19         66.46         58.64         50.83           369         737         739         165.12         308.70         78.19         66.46         58.64         50.83           370         737         739         165.72         309.54         78.79         66.97         59.99         55.22           371         733<									
363         723         725         161.52         303.66         74.59         63.40         55.94         48.49           364         725         727         162.12         304.50         75.19         663.91         56.39         48.88           365         727         729         162.72         305.34         75.79         64.42         56.84         49.26           366         729         731         163.32         306.18         76.39         64.93         57.29         49.66           367         731         733         163.92         307.02         76.99         65.44         57.74         50.05           368         733         735         165.12         308.76         77.59         66.95         58.19         50.44           369         735         737         165.12         308.54         78.79         66.95         58.64         50.83           370         737         739         165.72         309.54         78.79         66.95         59.99         51.22           371         739         741         166.32         310.38         79.39         67.48         59.54         51.61           372         741		+							
364         725         727         162.12         304.50         75.19         63.91         56.39         48.88           365         727         729         162.72         305.34         75.79         64.42         56.84         49.27           366         729         731         163.32         306.18         76.39         64.93         57.29         49.66           367         731         733         163.92         307.02         76.99         65.44         57.74         50.05           368         733         735         164.52         307.86         77.59         65.95         58.19         50.44           369         735         737         165.12         308.70         78.19         66.46         58.64         50.83           370         737         739         165.72         309.54         78.79         66.97         5909         51.22           371         739         741         166.32         311.22         79.99         67.99         59.99         52.00           372         741         743         166.92         311.22         79.99         67.99         59.99         52.03           373         743 </td <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>+</td> <td></td>								+	
365         727         729         162.72         305.34         75.79         64.42         56.84         49.27           366         729         731         163.32         306.18         76.39         64.93         57.29         49.66           367         731         733         163.92         307.02         76.99         65.44         57.74         50.05           368         733         735         165.12         308.70         77.59         65.95         58.19         50.44           369         735         737         165.12         308.70         78.19         66.46         58.64         50.83           370         737         739         165.72         309.54         78.79         66.97         5909         51.22           371         739         741         166.32         310.38         79.39         67.48         59.54         51.61           372         741         743         166.92         311.22         79.99         67.99         59.99         52.00           373         743         745         167.52         312.06         80.59         68.50         60.44         52.39           375         747 </td <td></td> <td>+</td> <td>-</td> <td></td> <td></td> <td></td> <td></td> <td>+</td> <td></td>		+	-					+	
366         729         731         163.32         306.18         76.39         64.93         57.29         49.66           367         731         733         163.92         307.02         76.99         65.44         57.74         50.05           368         733         735         165.52         307.86         77.59         65.95         58.19         50.44           369         735         737         165.12         308.70         78.19         66.46         58.64         50.83           370         737         739         165.72         309.54         78.79         66.97         5909         51.22           371         739         741         166.32         310.38         79.39         67.48         59.54         51.61           372         741         743         166.92         311.22         79.99         67.99         59.99         52.00           373         743         745         167.52         312.06         80.59         68.50         60.44         52.39           374         745         747         168.72         313.74         81.79         69.52         61.34         53.17           375         751 </td <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>+</td> <td>_</td>								+	_
367         731         733         163.92         307.02         76.99         65.44         57.74         50.05           368         733         735         164.52         307.86         77.59         65.95         58.19         50.44           369         735         737         165.12         308.70         78.19         66.46         58.64         50.83           370         737         739         165.72         309.54         78.79         66.97         5909         51.22           371         739         741         166.32         310.38         79.39         67.48         59.54         51.61           371         739         741         166.92         311.22         79.99         67.99         59.99         52.00           372         741         743         166.92         312.06         80.59         68.50         60.44         52.39           373         743         745         167.52         312.06         80.59         68.50         60.44         52.39           374         745         747         168.12         312.90         81.19         69.01         60.89         52.78           375         747 </td <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>									
368         733         735         164.52         307.86         77.59         65.95         58.19         50.44           369         735         737         165.12         308.70         78.19         66.46         58.64         50.83           370         737         739         165.72         309.54         78.79         66.97         5909         51.22           371         739         741         166.92         311.22         79.99         67.48         59.54         51.61           372         741         743         166.92         311.22         79.99         67.99         59.99         52.00           373         743         745         167.52         312.06         80.59         68.50         60.44         52.39           374         745         747         168.12         312.90         81.19         69.01         60.89         52.78           375         747         749         168.72         313.74         81.79         69.52         61.34         53.17           376         749         751         169.32         314.58         82.39         70.54         62.24         53.95           377         751 </td <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>+</td> <td></td>								+	
369         735         737         165.12         308.70         78.19         66.46         58.64         50.83           370         737         739         165.72         309.54         78.79         66.97         5909         51.22           371         739         741         166.32         310.38         79.39         67.48         59.54         51.61           372         741         743         166.92         311.22         79.99         67.99         59.99         52.00           373         743         745         167.52         312.06         80.59         68.50         60.44         52.38           374         745         747         168.12         312.90         81.19         69.01         60.89         52.78           375         747         749         168.72         313.74         81.79         69.52         61.34         53.17           376         749         751         169.32         314.58         82.39         70.03         61.79         53.56           377         751         753         169.92         315.42         82.99         70.54         62.24         53.95           378         755 </td <td></td> <td></td> <td></td> <td>_</td> <td></td> <td></td> <td></td> <td></td> <td></td>				_					
370         737         739         165.72         309.54         78.79         66.97         5909         51.22           371         739         741         166.32         310.38         79.39         67.48         59.54         51.61           372         741         743         166.92         311.22         79.99         67.99         59.99         52.00           373         743         745         167.52         312.06         80.59         68.50         60.44         52.39           374         745         747         168.12         312.06         80.59         68.50         60.44         52.39           375         747         749         168.72         313.74         81.19         69.52         61.34         53.17           376         749         751         169.32         314.58         82.39         70.03         61.79         53.56           377         751         753         169.92         315.42         82.99         70.54         62.24         53.95           378         753         755         170.52         316.26         83.59         71.05         62.69         54.34           379         755 </td <td></td> <td></td> <td></td> <td></td> <td></td> <td>+</td> <td></td> <td></td> <td>_</td>						+			_
371         739         741         166.32         310.38         79.39         67.48         59.54         51.61           372         741         743         166.92         311.22         79.99         67.99         59.99         52.00           373         743         745         167.52         312.06         80.59         68.50         60.44         52.39           374         745         747         168.12         312.90         81.19         69.01         60.89         52.78           375         747         749         168.72         313.74         81.79         69.52         61.34         53.17           376         749         751         169.32         314.58         82.39         70.03         61.79         53.56           377         751         753         169.92         315.42         82.99         70.54         62.24         53.95           378         753         755         170.52         316.26         83.59         71.05         62.69         54.34           379         755         757         171.12         317.10         84.19         71.56         63.14         54.73           380         757<									
372         741         743         166.92         311.22         79.99         67.99         59.99         52.00           373         743         745         167.52         312.06         80.59         68.50         60.44         52.39           374         745         747         168.12         312.90         81.19         69.01         60.89         52.78           375         747         749         168.72         313.74         81.79         69.52         61.34         53.17           376         749         751         169.32         314.58         82.39         70.03         61.79         53.56           377         751         753         169.92         315.42         82.99         70.54         62.24         53.95           378         753         755         170.52         316.26         83.59         71.05         62.69         54.34           379         755         757         171.12         317.10         84.19         71.56         63.14         54.73           380         757         759         171.72         317.94         84.79         72.58         64.04         55.51           381         759<					<u> </u>				_
373         743         745         167.52         312.06         80.59         68.50         60.44         52.39           374         745         747         168.12         312.90         81.19         69.01         60.89         52.78           375         747         749         168.72         313.74         81.79         69.52         61.34         53.17           376         749         751         169.32         314.58         82.39         70.03         61.79         53.56           377         751         753         169.92         315.42         82.99         70.54         62.24         53.95           378         753         755         170.52         316.26         83.59         71.05         62.69         54.34           379         755         757         171.12         317.10         84.19         71.56         63.14         54.73           380         757         759         171.72         317.94         84.79         72.07         63.59         55.12           381         759         761         172.32         318.78         85.39         72.58         64.04         55.51           382         761<									
374         745         747         168.12         312.90         81.19         69.01         60.89         52.78           375         747         749         168.72         313.74         81.79         69.52         61.34         53.17           376         749         751         169.32         314.58         82.39         70.03         61.79         53.56           377         751         753         169.92         315.42         82.99         70.54         62.24         53.95           378         753         755         170.52         316.26         83.59         71.05         62.69         54.34           379         755         757         171.12         317.10         84.19         71.56         63.14         54.73           380         757         759         171.72         317.94         84.79         72.07         63.59         55.12           381         759         761         172.32         318.78         85.39         72.58         64.04         55.51           382         761         763         172.92         319.62         85.99         73.09         64.49         56.29           384         765<				_	+			+	
375         747         749         168.72         313.74         81.79         69.52         61.34         53.17           376         749         751         169.32         314.58         82.39         70.03         61.79         53.56           377         751         753         169.92         315.42         82.99         70.54         62.24         53.95           378         753         755         170.52         316.26         83.59         71.05         62.69         54.34           379         755         757         171.12         317.10         84.19         71.56         63.14         54.73           380         757         759         171.72         317.94         84.79         72.07         63.59         55.12           381         759         761         172.32         318.78         85.39         72.58         64.04         55.51           382         761         763         172.92         319.62         85.99         73.09         64.49         55.90           383         763         765         173.52         320.46         86.59         73.60         64.94         56.29           384         765<									
376         749         751         169.32         314.58         82.39         70.03         61.79         53.56           377         751         753         169.92         315.42         82.99         70.54         62.24         53.95           378         753         755         170.52         316.26         83.59         71.05         62.69         54.34           379         755         757         171.12         317.10         84.19         71.56         63.14         54.73           380         757         759         171.72         317.94         84.79         72.07         63.59         55.12           381         759         761         172.32         318.78         85.39         72.58         64.04         55.51           382         761         763         172.92         319.62         85.99         73.09         64.49         55.90           383         763         765         173.52         320.46         86.59         73.60         64.94         56.29           384         765         767         174.12         321.30         87.19         74.11         65.39         56.68           385         767<				_					
377         751         753         169.92         315.42         82.99         70.54         62.24         53.95           378         753         755         170.52         316.26         83.59         71.05         62.69         54.34           379         755         757         171.12         317.10         84.19         71.56         63.14         54.73           380         757         759         171.72         317.94         84.79         72.07         63.59         55.12           381         759         761         172.32         318.78         85.39         72.58         64.04         55.51           382         761         763         172.92         319.62         85.99         73.09         64.49         55.90           383         763         765         173.52         320.46         86.59         73.60         64.94         56.29           384         765         767         174.12         321.30         87.19         74.11         65.39         56.68           385         767         769         174.72         322.14         87.79         74.62         65.84         57.07           386         769<	376	+			314.58	82.39		+	
378         753         755         170.52         316.26         83.59         71.05         62.69         54.34           379         755         757         171.12         317.10         84.19         71.56         63.14         54.73           380         757         759         171.72         317.94         84.79         72.07         63.59         55.12           381         759         761         172.32         318.78         85.39         72.58         64.04         55.51           382         761         763         172.92         319.62         85.99         73.09         64.49         55.90           383         763         765         173.52         320.46         86.59         73.60         64.94         56.29           384         765         767         174.12         321.30         87.19         74.11         65.39         56.68           385         767         769         174.72         322.14         87.79         74.62         65.84         57.07           386         769         771         175.32         322.98         88.39         75.13         66.29         57.46           387         771<		+		_		1			
379         755         757         171.12         317.10         84.19         71.56         63.14         54.73           380         757         759         171.72         317.94         84.79         72.07         63.59         55.12           381         759         761         172.32         318.78         85.39         72.58         64.04         55.51           382         761         763         172.92         319.62         85.99         73.09         64.49         55.90           383         763         765         173.52         320.46         86.59         73.60         64.94         56.29           384         765         767         174.12         321.30         87.19         74.11         65.39         56.68           385         767         769         174.72         322.14         87.79         74.62         65.84         57.07           386         769         771         175.32         322.98         88.39         75.13         66.29         57.46           387         771         773         175.92         323.82         88.99         75.64         66.74         57.85           388         773<			-	_	<u> </u>	+			
380         757         759         171.72         317.94         84.79         72.07         63.59         55.12           381         759         761         172.32         318.78         85.39         72.58         64.04         55.51           382         761         763         172.92         319.62         85.99         73.09         64.49         55.90           383         763         765         173.52         320.46         86.59         73.60         64.94         56.29           384         765         767         174.12         321.30         87.19         74.11         65.39         56.68           385         767         769         174.72         322.14         87.79         74.62         65.84         57.07           386         769         771         175.32         322.98         88.39         75.13         66.29         57.46           387         771         773         175.92         323.82         88.99         75.64         66.74         57.85           388         773         775         176.52         324.66         89.59         76.15         67.19         58.24           389         775<									
381         759         761         172.32         318.78         85.39         72.58         64.04         55.51           382         761         763         172.92         319.62         85.99         73.09         64.49         55.90           383         763         765         173.52         320.46         86.59         73.60         64.94         56.29           384         765         767         174.12         321.30         87.19         74.11         65.39         56.68           385         767         769         174.72         322.14         87.79         74.62         65.84         57.07           386         769         771         175.32         322.98         88.39         75.13         66.29         57.46           387         771         773         175.92         323.82         88.99         75.64         66.74         57.85           388         773         775         176.52         324.66         89.59         76.15         67.19         58.24           389         775         777         177.72         326.34         90.79         77.17         68.09         59.02           391         779<	380	+	759	171.72	317.94	1	72.07	+	
382         761         763         172.92         319.62         85.99         73.09         64.49         55.90           383         763         765         173.52         320.46         86.59         73.60         64.94         56.29           384         765         767         174.12         321.30         87.19         74.11         65.39         56.68           385         767         769         174.72         322.14         87.79         74.62         65.84         57.07           386         769         771         175.32         322.98         88.39         75.13         66.29         57.46           387         771         773         175.92         323.82         88.99         75.64         66.74         57.85           388         773         775         176.52         324.66         89.59         76.15         67.19         58.24           389         775         777         177.12         325.50         90.19         76.66         67.64         58.63           390         777         779         177.72         326.34         90.79         77.17         68.09         59.02           391         783<	381	759	761	172.32	318.78	85.39	72.58	64.04	55.51
383         763         765         173.52         320.46         86.59         73.60         64.94         56.29           384         765         767         174.12         321.30         87.19         74.11         65.39         56.68           385         767         769         174.72         322.14         87.79         74.62         65.84         57.07           386         769         771         175.32         322.98         88.39         75.13         66.29         57.46           387         771         773         175.92         323.82         88.99         75.64         66.74         57.85           388         773         775         176.52         324.66         89.59         76.15         67.19         58.24           389         775         777         177.12         325.50         90.19         76.66         67.64         58.63           390         777         779         177.72         326.34         90.79         77.17         68.09         59.02           391         779         781         178.32         327.18         91.39         77.68         68.54         59.41           392         781<	382	761	763	172.92	319.62	+	73.09	64.49	
385         767         769         174.72         322.14         87.79         74.62         65.84         57.07           386         769         771         175.32         322.98         88.39         75.13         66.29         57.46           387         771         773         175.92         323.82         88.99         75.64         66.74         57.85           388         773         775         176.52         324.66         89.59         76.15         67.19         58.24           389         775         777         177.12         325.50         90.19         76.66         67.64         58.63           390         777         779         177.72         326.34         90.79         77.17         68.09         59.02           391         779         781         178.32         327.18         91.39         77.68         68.54         59.41           392         781         783         178.92         328.86         92.59         78.70         69.44         60.19           394         785         787         180.12         329.70         93.19         79.21         69.89         60.58           395         787<					320.46				
385         767         769         174.72         322.14         87.79         74.62         65.84         57.07           386         769         771         175.32         322.98         88.39         75.13         66.29         57.46           387         771         773         175.92         323.82         88.99         75.64         66.74         57.85           388         773         775         176.52         324.66         89.59         76.15         67.19         58.24           389         775         777         177.12         325.50         90.19         76.66         67.64         58.63           390         777         779         177.72         326.34         90.79         77.17         68.09         59.02           391         779         781         178.32         327.18         91.39         77.68         68.54         59.41           392         781         783         178.92         328.86         92.59         78.70         69.44         60.19           394         785         787         180.12         329.70         93.19         79.21         69.89         60.58           395         787<				174.12					
386         769         771         175.32         322.98         88.39         75.13         66.29         57.46           387         771         773         175.92         323.82         88.99         75.64         66.74         57.85           388         773         775         176.52         324.66         89.59         76.15         67.19         58.24           389         775         777         177.12         325.50         90.19         76.66         67.64         58.63           390         777         779         177.72         326.34         90.79         77.17         68.09         59.02           391         779         781         178.32         327.18         91.39         77.68         68.54         59.41           392         781         783         178.92         328.02         91.99         78.19         68.99         59.80           393         783         785         179.52         328.86         92.59         78.70         69.44         60.19           394         785         787         180.12         329.70         93.19         79.21         69.89         60.58           395         787<			769				74.62		
387         771         773         175.92         323.82         88.99         75.64         66.74         57.85           388         773         775         176.52         324.66         89.59         76.15         67.19         58.24           389         775         777         177.12         325.50         90.19         76.66         67.64         58.63           390         777         779         177.72         326.34         90.79         77.17         68.09         59.02           391         779         781         178.32         327.18         91.39         77.68         68.54         59.41           392         781         783         178.92         328.02         91.99         78.19         68.99         59.80           393         783         785         179.52         328.86         92.59         78.70         69.44         60.19           394         785         787         180.12         329.70         93.19         79.21         69.89         60.58           395         787         789         181.32         331.38         94.39         80.23         70.79         61.36           397         791<		769		175.32	322.98	+		66.29	57.46
388         773         775         176.52         324.66         89.59         76.15         67.19         58.24           389         775         777         177.12         325.50         90.19         76.66         67.64         58.63           390         777         779         177.72         326.34         90.79         77.17         68.09         59.02           391         779         781         178.32         327.18         91.39         77.68         68.54         59.41           392         781         783         178.92         328.02         91.99         78.19         68.99         59.80           393         783         785         179.52         328.86         92.59         78.70         69.44         60.19           394         785         787         180.12         329.70         93.19         79.21         69.89         60.58           395         787         789         180.72         330.54         93.79         79.72         70.34         60.97           396         789         791         181.32         331.38         94.39         80.23         70.79         61.36           397         791<			773				75.64		
390         777         779         177.72         326.34         90.79         77.17         68.09         59.02           391         779         781         178.32         327.18         91.39         77.68         68.54         59.41           392         781         783         178.92         328.02         91.99         78.19         68.99         59.80           393         783         785         179.52         328.86         92.59         78.70         69.44         60.19           394         785         787         180.12         329.70         93.19         79.21         69.89         60.58           395         787         789         180.72         330.54         93.79         79.72         70.34         60.97           396         789         791         181.32         331.38         94.39         80.23         70.79         61.36           397         791         793         181.92         332.22         94.99         80.74         71.24         61.75           398         793         795         182.52         333.06         95.59         81.25         71.69         62.14	388		775		+				
391         779         781         178.32         327.18         91.39         77.68         68.54         59.41           392         781         783         178.92         328.02         91.99         78.19         68.99         59.80           393         783         785         179.52         328.86         92.59         78.70         69.44         60.19           394         785         787         180.12         329.70         93.19         79.21         69.89         60.58           395         787         789         180.72         330.54         93.79         79.72         70.34         60.97           396         789         791         181.32         331.38         94.39         80.23         70.79         61.36           397         791         793         181.92         332.22         94.99         80.74         71.24         61.75           398         793         795         182.52         333.06         95.59         81.25         71.69         62.14	389	775	777	177.12	325.50	90.19	76.66	67.64	58.63
392         781         783         178.92         328.02         91.99         78.19         68.99         59.80           393         783         785         179.52         328.86         92.59         78.70         69.44         60.19           394         785         787         180.12         329.70         93.19         79.21         69.89         60.58           395         787         789         180.72         330.54         93.79         79.72         70.34         60.97           396         789         791         181.32         331.38         94.39         80.23         70.79         61.36           397         791         793         181.92         332.22         94.99         80.74         71.24         61.75           398         793         795         182.52         333.06         95.59         81.25         71.69         62.14	390	777	779	177.72	326.34	90.79	77.17	68.09	59.02
393         783         785         179.52         328.86         92.59         78.70         69.44         60.19           394         785         787         180.12         329.70         93.19         79.21         69.89         60.58           395         787         789         180.72         330.54         93.79         79.72         70.34         60.97           396         789         791         181.32         331.38         94.39         80.23         70.79         61.36           397         791         793         181.92         332.22         94.99         80.74         71.24         61.75           398         793         795         182.52         333.06         95.59         81.25         71.69         62.14					+		77.68	68.54	_
393         783         785         179.52         328.86         92.59         78.70         69.44         60.19           394         785         787         180.12         329.70         93.19         79.21         69.89         60.58           395         787         789         180.72         330.54         93.79         79.72         70.34         60.97           396         789         791         181.32         331.38         94.39         80.23         70.79         61.36           397         791         793         181.92         332.22         94.99         80.74         71.24         61.75           398         793         795         182.52         333.06         95.59         81.25         71.69         62.14	392	781	783	178.92	328.02	91.99	78.19	68.99	59.80
394         785         787         180.12         329.70         93.19         79.21         69.89         60.58           395         787         789         180.72         330.54         93.79         79.72         70.34         60.97           396         789         791         181.32         331.38         94.39         80.23         70.79         61.36           397         791         793         181.92         332.22         94.99         80.74         71.24         61.75           398         793         795         182.52         333.06         95.59         81.25         71.69         62.14									_
395     787     789     180.72     330.54     93.79     79.72     70.34     60.97       396     789     791     181.32     331.38     94.39     80.23     70.79     61.36       397     791     793     181.92     332.22     94.99     80.74     71.24     61.75       398     793     795     182.52     333.06     95.59     81.25     71.69     62.14		785		180.12	1	93.19	79.21		60.58
396     789     791     181.32     331.38     94.39     80.23     70.79     61.36       397     791     793     181.92     332.22     94.99     80.74     71.24     61.75       398     793     795     182.52     333.06     95.59     81.25     71.69     62.14	395	787	789						_
398         793         795         182.52         333.06         95.59         81.25         71.69         62.14		789		181.32	+	+	80.23	+	
398         793         795         182.52         333.06         95.59         81.25         71.69         62.14									
	398	793	795	182.52	333.06	95.59	81.25	+	62.14
000	399	795	797	183.12	333.90	96.19	81.76	72.14	62.53

400         797         799         183.72         334.74         96.79         82.27         72.59         62.9           401         799         801         184.32         335.58         97.39         82.78         73.04         63.3           402         801         803         184.92         336.42         97.99         83.29         73.49         63.3           403         803         805         185.52         337.26         98.59         83.80         73.94         64.4           405         807         809         186.12         338.10         99.19         84.31         74.39         64.4           405         807         809         186.72         338.94         99.79         84.82         74.84         64.8           406         809         811         187.32         339.78         100.39         85.33         75.29         65.2           407         811         813         187.92         340.62         100.99         85.84         75.74         65.6           408         813         815         188.52         341.46         101.59         86.35         76.19         66.6           410         817	31 70 09 48 37 26 65 04 43 32 21 60 99
402         801         803         184.92         336.42         97.99         83.29         73.49         63.7           403         803         805         185.52         337.26         98.59         83.80         73.94         64.6           404         805         807         186.12         338.10         99.19         84.31         74.39         64.4           405         807         809         186.72         338.94         99.79         84.82         74.84         64.8           406         809         811         187.32         339.78         100.39         85.33         75.29         65.2           407         811         813         187.92         340.62         100.99         85.84         75.74         65.6           408         813         815         188.52         341.46         101.59         86.35         76.19         66.6           409         815         817         189.12         342.30         102.19         86.86         76.64         66.4           410         817         819.12         342.30         102.19         87.37         77.09         66.3           411         819         821	70 09 48 37 26 55 04 43 32 21 60 99
403         803         805         185.52         337.26         98.59         83.80         73.94         64.6           404         805         807         186.12         338.10         99.19         84.31         74.39         64.4           405         807         809         186.72         338.94         99.79         84.82         74.84         64.8           406         809         811         187.32         339.78         100.39         85.33         75.29         65.2           407         811         813         187.92         340.62         100.99         85.84         75.74         65.6           408         813         815         188.52         341.46         101.59         86.35         76.19         66.6           409         815         817         189.12         342.30         102.19         86.86         76.64         66.4           410         817         819.12         342.30         102.19         86.86         76.64         66.4           410         817         819.12         342.30         102.19         87.37         77.09         66.8           411         819         821         190.32<	09 48 37 26 65 04 43 32 21 60 99
404         805         807         186.12         338.10         99.19         84.31         74.39         64.4           405         807         809         186.72         338.94         99.79         84.82         74.84         64.8           406         809         811         187.32         339.78         100.39         85.33         75.29         65.2           407         811         813         187.92         340.62         100.99         85.84         75.74         65.6           408         813         815         188.52         341.46         101.59         86.35         76.19         66.6           409         815         817         189.12         342.30         102.19         86.86         76.64         66.4           410         817         819         189.72         343.14         102.79         87.37         77.09         66.8           411         819         821         190.32         343.98         103.39         87.88         77.54         67.2           412         821         823         190.92         344.82         103.99         88.39         77.99         67.6           413         823 <td>48 37 26 35 04 43 32 21 60 99 38</td>	48 37 26 35 04 43 32 21 60 99 38
405         807         809         186.72         338.94         99.79         84.82         74.84         64.8           406         809         811         187.32         339.78         100.39         85.33         75.29         65.2           407         811         813         187.92         340.62         100.99         85.84         75.74         65.6           408         813         815         188.52         341.46         101.59         86.35         76.19         66.6           409         815         817         189.12         342.30         102.19         86.86         76.64         66.4           410         817         819         189.72         343.14         102.79         87.37         77.09         66.8           411         819         821         190.32         343.98         103.39         87.88         77.54         67.2           412         821         823         190.92         344.82         103.99         88.39         77.99         67.6           413         823         825         191.52         345.66         104.59         88.90         78.44         67.9           414         825 </td <td>37 26 35 04 43 32 21 60</td>	37 26 35 04 43 32 21 60
406         809         811         187.32         339.78         100.39         85.33         75.29         65.2           407         811         813         187.92         340.62         100.99         85.84         75.74         65.6           408         813         815         188.52         341.46         101.59         86.35         76.19         66.0           409         815         817         189.12         342.30         102.19         86.86         76.64         66.4           410         817         819         189.72         343.14         102.79         87.37         77.09         66.8           411         819         821         190.32         343.98         103.39         87.88         77.54         67.2           412         821         823         190.92         344.82         103.99         88.39         77.99         67.6           413         823         825         191.52         345.66         104.59         88.90         78.44         67.9           414         825         827         192.12         346.50         105.19         89.41         78.89         68.3           415         827<	26 55 04 43 32 21 60 99
407         811         813         187.92         340.62         100.99         85.84         75.74         65.6           408         813         815         188.52         341.46         101.59         86.35         76.19         66.6           409         815         817         189.12         342.30         102.19         86.86         76.64         66.4           410         817         819         189.72         343.14         102.79         87.37         77.09         66.8           411         819         821         190.32         343.98         103.39         87.88         77.54         67.2           412         821         823         190.92         344.82         103.99         88.39         77.99         67.6           413         823         825         191.52         345.66         104.59         88.90         78.44         67.9           414         825         827         192.12         346.50         105.19         89.41         78.89         68.3           415         827         829         192.72         347.34         105.79         89.92         79.34         68.3           416         829<	65 04 43 32 21 60 99
408         813         815         188.52         341.46         101.59         86.35         76.19         66.6           409         815         817         189.12         342.30         102.19         86.86         76.64         66.4           410         817         819         189.72         343.14         102.79         87.37         77.09         66.8           411         819         821         190.32         343.98         103.39         87.88         77.54         67.2           412         821         823         190.92         344.82         103.99         88.39         77.99         67.6           413         823         825         191.52         345.66         104.59         88.90         78.44         67.9           414         825         827         192.12         346.50         105.19         89.41         78.89         68.3           415         827         829         192.72         347.34         105.79         89.92         79.34         68.3           416         829         831         193.32         348.18         106.39         90.43         79.79         69.3           417         831<	04 43 32 21 60 99
409         815         817         189.12         342.30         102.19         86.86         76.64         66.4           410         817         819         189.72         343.14         102.79         87.37         77.09         66.8           411         819         821         190.32         343.98         103.39         87.88         77.54         67.2           412         821         823         190.92         344.82         103.99         88.39         77.99         67.6           413         823         825         191.52         345.66         104.59         88.90         78.44         67.9           414         825         827         192.12         346.50         105.19         89.41         78.89         68.3           415         827         829         192.72         347.34         105.79         89.92         79.34         68.3           416         829         831         193.32         348.18         106.39         90.43         79.79         69.3           417         831         833         193.92         349.02         106.99         90.94         80.24         69.3           418         833<	43 32 21 60 99
410         817         819         189.72         343.14         102.79         87.37         77.09         66.8           411         819         821         190.32         343.98         103.39         87.88         77.54         67.3           412         821         823         190.92         344.82         103.99         88.39         77.99         67.6           413         823         825         191.52         345.66         104.59         88.90         78.44         67.5           414         825         827         192.12         346.50         105.19         89.41         78.89         68.3           415         827         829         192.72         347.34         105.79         89.92         79.34         68.3           416         829         831         193.32         348.18         106.39         90.43         79.79         69.3           417         831         833         193.92         349.86         107.59         91.45         80.69         69.9           418         833         835         194.52         349.86         107.59         91.45         80.69         69.9           419         835<	32 21 60 99 38
411         819         821         190.32         343.98         103.39         87.88         77.54         67.2           412         821         823         190.92         344.82         103.99         88.39         77.99         67.6           413         823         825         191.52         345.66         104.59         88.90         78.44         67.9           414         825         827         192.12         346.50         105.19         89.41         78.89         68.3           415         827         829         192.72         347.34         105.79         89.92         79.34         68.3           416         829         831         193.32         348.18         106.39         90.43         79.79         69.3           417         831         833         193.92         349.02         106.99         90.94         80.24         69.9           418         833         835         194.52         349.86         107.59         91.45         80.69         69.9           419         835         837         195.12         350.70         108.19         91.96         81.14         70.3           420         837<	21 60 99 38
412         821         823         190.92         344.82         103.99         88.39         77.99         67.6           413         823         825         191.52         345.66         104.59         88.90         78.44         67.9           414         825         827         192.12         346.50         105.19         89.41         78.89         68.3           415         827         829         192.72         347.34         105.79         89.92         79.34         68.3           416         829         831         193.32         348.18         106.39         90.43         79.79         69.3           417         831         833         193.92         349.02         106.99         90.94         80.24         69.9           418         833         835         194.52         349.86         107.59         91.45         80.69         69.9           419         835         837         195.12         350.70         108.19         91.96         81.14         70.3           420         837         839         195.72         351.54         108.79         92.47         81.59         70.3           421         839<	60 99 38
413         823         825         191.52         345.66         104.59         88.90         78.44         67.9           414         825         827         192.12         346.50         105.19         89.41         78.89         68.3           415         827         829         192.72         347.34         105.79         89.92         79.34         68.3           416         829         831         193.32         348.18         106.39         90.43         79.79         69.3           417         831         833         193.92         349.02         106.99         90.94         80.24         69.9           418         833         835         194.52         349.86         107.59         91.45         80.69         69.9           419         835         837         195.12         350.70         108.19         91.96         81.14         70.3           420         837         839         195.72         351.54         108.79         92.47         81.59         70.3           421         839         841         196.32         353.22         109.99         93.49         82.49         71.5           423         843<	99 38
414         825         827         192.12         346.50         105.19         89.41         78.89         68.3           415         827         829         192.72         347.34         105.79         89.92         79.34         68.3           416         829         831         193.32         348.18         106.39         90.43         79.79         69.3           417         831         833         193.92         349.02         106.99         90.94         80.24         69.5           418         833         835         194.52         349.86         107.59         91.45         80.69         69.9           419         835         837         195.12         350.70         108.19         91.96         81.14         70.3           420         837         839         195.72         351.54         108.79         92.47         81.59         70.3           421         839         841         196.32         352.38         109.39         92.98         82.04         71.3           422         841         843         196.92         353.22         109.99         93.49         82.49         71.8           423         843<	38
415         827         829         192.72         347.34         105.79         89.92         79.34         68.7           416         829         831         193.32         348.18         106.39         90.43         79.79         69.2           417         831         833         193.92         349.02         106.99         90.94         80.24         69.9           418         833         835         194.52         349.86         107.59         91.45         80.69         69.9           419         835         837         195.12         350.70         108.19         91.96         81.14         70.3           420         837         839         195.72         351.54         108.79         92.47         81.59         70.3           421         839         841         196.32         352.38         109.39         92.98         82.04         71.3           422         841         843         196.92         353.22         109.99         93.49         82.49         71.8           423         843         845         197.52         354.06         110.59         94.00         82.94         71.8           425         847<	
416         829         831         193.32         348.18         106.39         90.43         79.79         69.6           417         831         833         193.92         349.02         106.99         90.94         80.24         69.6           418         833         835         194.52         349.86         107.59         91.45         80.69         69.6           419         835         837         195.12         350.70         108.19         91.96         81.14         70.3           420         837         839         195.72         351.54         108.79         92.47         81.59         70.3           421         839         841         196.32         352.38         109.39         92.98         82.04         71.3           422         841         843         196.92         353.22         109.99         93.49         82.49         71.8           423         843         845         197.52         354.06         110.59         94.00         82.94         71.8           424         845         847         198.12         354.90         111.19         94.51         83.39         72.2           425         847<	
417       831       833       193.92       349.02       106.99       90.94       80.24       69.9         418       833       835       194.52       349.86       107.59       91.45       80.69       69.9         419       835       837       195.12       350.70       108.19       91.96       81.14       70.3         420       837       839       195.72       351.54       108.79       92.47       81.59       70.3         421       839       841       196.32       352.38       109.39       92.98       82.04       71.6         422       841       843       196.92       353.22       109.99       93.49       82.49       71.6         423       843       845       197.52       354.06       110.59       94.00       82.94       71.6         424       845       847       198.12       354.90       111.19       94.51       83.39       72.2         425       847       849       198.72       355.74       111.79       95.02       83.84       72.6         426       849       851       199.32       356.58       112.39       96.53       84.29       73.6	77
418       833       835       194.52       349.86       107.59       91.45       80.69       69.9         419       835       837       195.12       350.70       108.19       91.96       81.14       70.3         420       837       839       195.72       351.54       108.79       92.47       81.59       70.3         421       839       841       196.32       352.38       109.39       92.98       82.04       71.3         422       841       843       196.92       353.22       109.99       93.49       82.49       71.8         423       843       845       197.52       354.06       110.59       94.00       82.94       71.8         424       845       847       198.12       354.90       111.19       94.51       83.39       72.2         425       847       849       198.72       355.74       111.79       95.02       83.84       72.6         426       849       851       199.32       356.58       112.39       95.53       84.29       73.6         427       851       853       199.92       357.42       112.99       96.04       84.74       73.6	16
419       835       837       195.12       350.70       108.19       91.96       81.14       70.3         420       837       839       195.72       351.54       108.79       92.47       81.59       70.3         421       839       841       196.32       352.38       109.39       92.98       82.04       71.3         422       841       843       196.92       353.22       109.99       93.49       82.49       71.5         423       843       845       197.52       354.06       110.59       94.00       82.94       71.5         424       845       847       198.12       354.90       111.19       94.51       83.39       72.2         425       847       849       198.72       355.74       111.79       95.02       83.84       72.6         426       849       851       199.32       356.58       112.39       95.53       84.29       73.6         427       851       853       199.92       357.42       112.99       96.04       84.74       73.6         428       853       855       200.52       358.26       113.59       96.55       85.19       73.6	55
420       837       839       195.72       351.54       108.79       92.47       81.59       70.7         421       839       841       196.32       352.38       109.39       92.98       82.04       71.7         422       841       843       196.92       353.22       109.99       93.49       82.49       71.8         423       843       845       197.52       354.06       110.59       94.00       82.94       71.8         424       845       847       198.12       354.90       111.19       94.51       83.39       72.2         425       847       849       198.72       355.74       111.79       95.02       83.84       72.6         426       849       851       199.32       356.58       112.39       95.53       84.29       73.6         427       851       853       199.92       357.42       112.99       96.04       84.74       73.4         428       853       855       200.52       358.26       113.59       96.55       85.19       73.8         429       855       857       201.12       359.10       114.19       97.06       85.64       74.2	94
421       839       841       196.32       352.38       109.39       92.98       82.04       71.3         422       841       843       196.92       353.22       109.99       93.49       82.49       71.8         423       843       845       197.52       354.06       110.59       94.00       82.94       71.8         424       845       847       198.12       354.90       111.19       94.51       83.39       72.2         425       847       849       198.72       355.74       111.79       95.02       83.84       72.6         426       849       851       199.32       356.58       112.39       95.53       84.29       73.6         427       851       853       199.92       357.42       112.99       96.04       84.74       73.4         428       853       855       200.52       358.26       113.59       96.55       85.19       73.8         429       855       857       201.12       359.10       114.19       97.06       85.64       74.2	33
422       841       843       196.92       353.22       109.99       93.49       82.49       71.5         423       843       845       197.52       354.06       110.59       94.00       82.94       71.5         424       845       847       198.12       354.90       111.19       94.51       83.39       72.2         425       847       849       198.72       355.74       111.79       95.02       83.84       72.6         426       849       851       199.32       356.58       112.39       95.53       84.29       73.6         427       851       853       199.92       357.42       112.99       96.04       84.74       73.4         428       853       855       200.52       358.26       113.59       96.55       85.19       73.8         429       855       857       201.12       359.10       114.19       97.06       85.64       74.2	72
423       843       845       197.52       354.06       110.59       94.00       82.94       71.8         424       845       847       198.12       354.90       111.19       94.51       83.39       72.2         425       847       849       198.72       355.74       111.79       95.02       83.84       72.6         426       849       851       199.32       356.58       112.39       95.53       84.29       73.6         427       851       853       199.92       357.42       112.99       96.04       84.74       73.6         428       853       855       200.52       358.26       113.59       96.55       85.19       73.8         429       855       857       201.12       359.10       114.19       97.06       85.64       74.2	11
424       845       847       198.12       354.90       111.19       94.51       83.39       72.2         425       847       849       198.72       355.74       111.79       95.02       83.84       72.6         426       849       851       199.32       356.58       112.39       95.53       84.29       73.6         427       851       853       199.92       357.42       112.99       96.04       84.74       73.4         428       853       855       200.52       358.26       113.59       96.55       85.19       73.8         429       855       857       201.12       359.10       114.19       97.06       85.64       74.2	50
425       847       849       198.72       355.74       111.79       95.02       83.84       72.6         426       849       851       199.32       356.58       112.39       95.53       84.29       73.6         427       851       853       199.92       357.42       112.99       96.04       84.74       73.4         428       853       855       200.52       358.26       113.59       96.55       85.19       73.8         429       855       857       201.12       359.10       114.19       97.06       85.64       74.2	39
426     849     851     199.32     356.58     112.39     95.53     84.29     73.6       427     851     853     199.92     357.42     112.99     96.04     84.74     73.6       428     853     855     200.52     358.26     113.59     96.55     85.19     73.8       429     855     857     201.12     359.10     114.19     97.06     85.64     74.2	28
427     851     853     199.92     357.42     112.99     96.04     84.74     73.4       428     853     855     200.52     358.26     113.59     96.55     85.19     73.8       429     855     857     201.12     359.10     114.19     97.06     85.64     74.2	37
428     853     855     200.52     358.26     113.59     96.55     85.19     73.8       429     855     857     201.12     359.10     114.19     97.06     85.64     74.2	06
429 855 857 201.12 359.10 114.19 97.06 85.64 74.2	<del>1</del> 5
	34
430 857 859 201.72 359.94 114.79 97.57 86.09 74.6	23
	32
431 859 861 202.32 360.78 115.39 98.08 86.55 75.0	) <u>1</u>
432 861 863 202.92 361.62 115.99 98.68 87.15 75.6	31
433 863 865 203.52 362.46 116.59 99.28 87.75 76.2	21
434 865 867 204.12 363.30 117.19 99.88 88.35 76.8	31
435 867 869 204.72 364.98 117.79 100.48 88.95 77.4	<del>1</del> 1
436 869 871 205.32 364.98 118.39 101.08 89.55 78.0	)1
437 871 873 205.92 365.82 118.99 101.68 90.15 78.6	31
438 873 875 206.52 366.66 119.59 102.28 90.75 79.2	21
439 875 877 207.12 367.50 120.19 102.88 91.35 79.8	31
440 877 879 207.72 368.34 120.79 103.48 91.95 80.4	<del>1</del> 1
441 879 881 208.32 369.18 121.39 104.08 92.55 81.0	14
442 881 883 208.92 370.02 121.99 104.68 93.15 81.6	<u> </u>
443 883 885 209.52 370.86 122.59 105.28 93.75 82.2	
444 885 887 210.12 371.70 123.19 105.88 94.35 82.8	31
445 887 889 210.72 372.54 123.79 106.48 94.95 83.4	31 21
446 889 891 211.32 373.38 124.39 107.08 95.55 84.0	61 21 31
447 891 893 211.92 374.22 124.99 107.68 96.15 84.6	61 21 31 41
448 893 895 212.52 375.06 125.59 108.28 96.75 85.2	61 21 31 41 01

449	895	897	213.12	375.90	126.19	108.88	97.35	85.81
450	897	899	213.72	376.74	126.79	109.48	97.95	86.41
451	899	901	214.32	377.58	127.39	110.08	98.55	87.01
452	901	903	214.92	378.42	127.99	110.68	99.15	87.61

**APPENDIX** 

# **TABLE C APPLICABLE FROM 1 JULY 2012**

COLUMN 1	COLUMN 2	COLUMN 3
NON-RESIDENT TAXPAYERS	WHERE NO DECLARATION IS LODGED	WHERE A DECLARATION IS LODGED
Where fortnightly income exceeds K900 K214.62 plus 0.30Toea for each K1 by which the fortnight salary exceeds K900.	Where fortnightly income exceeds K900, K378.00 plus 0.42Toea for each K1 by which the fortnight salary exceeds K900.	Where fortnightly income exceeds K900, K127.00 plus 0.30Toea for each K1 by which the fortnight salary exceeds K900.
Where fortnightly income exceeds K1,269, K325.38 plus 0.35Toea for each K1 by which the fortnight salary exceeds K1,269		Where fortnightly income exceeds K1,277, K240.77 plus 0.35Toea for each K1 by which the fortnight salary exceeds K1,277.
Where fortnightly income exceeds K2,692, K823.46 plus 0.40Toea for each K1 by which the fortnight salary exceeds K2692.		Where fortnightly income exceeds K2,700, K738.85 plus 0.40Toea for each K1 by which the fortnight salary exceeds K2,700.
Where fortnightly income exceeds K9,615, K3,592.69 plus 0.42Toea for each K1 by which the fortnight salary exceeds K9,615.		Where fortnightly income exceeds K9,623, K3,508.08 plus 0.42Toea for each K1 by which the fortnight salary exceeds K9623.

Where a dependant's declaration has been furnished, the amount of deduction calculated in accordance with column 3 of the table above is reduced by the amount set out below opposite the number of dependants shown on that form.

1 dependant K17.31	2 dependants K28.85	3 or more dependants K40.38
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