



# **Economics**

## **Enrichment Exercises and solutions**

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**MANAGEMENT COLLEGE OF SOUTHERN AFRICA**

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A decorative graphic consisting of several curved, gray, ribbon-like bands that sweep across the page from the top right towards the bottom left, framing the central text.

**ECONOMICS 1A**

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**STUDY UNIT 1: AN INTRODUCTION TO MICROECONOMICS**

**MULTIPLE CHOICE QUESTIONS**

1. If the principal concern of economics is the question of how best to use society's resources, then economics would be irrelevant if
  - a. we had unlimited wants.
  - b. economies were organised around command rather than market principles.
  - c. economies were organised around market rather than command principles.
  - d. resources were available in unlimited quantities.
  - e. incomes were distributed more equally.
  
2. The problem of economising is essentially one of deciding how to make the best use of
  - a. virtually unlimited resources to satisfy limited wants.
  - b. virtually unlimited resources to satisfy virtually unlimited wants.
  - c. limited resources to satisfy virtually unlimited wants.
  - d. limited resources to satisfy limited wants.
  - e. limited resources to generate wants.
  
3. A basis for the systematic study of economics exists because
  - a. resources are scarce in relation to material wants.
  - b. governments interfere with the efficient allocation of scarce resources.
  - c. individual economic actors cannot be relied upon to make rational economic decisions.
  - d. resources are plentiful relative to wants, therefore an allocation problem arises.
  - e. the market consistently fails to allocate resources efficiently, thereby establishing the need to study economics.
  
4. Opportunity cost is best defined as
  - a. the out-of-pocket money costs incurred when a decision is made.
  - b. the value of the best alternative sacrificed when a choice is made.
  - c. the value of all the alternatives given up when a choice is made.
  - d. the value of time lost when a choice is made.
  - e. both b and c above

5. Microeconomics is a branch of economics that studies
  - a. the determination of national income.
  - b. the behaviour of individual decision-making units in the economy.
  - c. the impact of unemployment in South Africa.
  - d. the effects and consequences of the aggregate behaviour of all decision-making units.
  - e. both b and d above
  
6. Macroeconomics is a branch of economics that studies
  - a. the determination of total economic activity.
  - b. the behaviour of individual decision-making units in the economy.
  - c. decisions by firms regarding the most efficient use of resources.
  - d. the effects and consequences of the aggregate behaviour of all decision-making units.
  - e. both a and d above
  
7. The axes of the production possibility frontier measure
  - a. quantities of productive inputs.
  - b. quantities of finished commodities.
  - c. quantities of raw materials.
  - d. values of finished commodities.
  - e. values of raw materials.
  
8. A normative statement is a statement regarding
  - a. what is usually the case.
  - b. the assumptions of an economic model.
  - c. what ought to be.
  - d. the predictions of an economic model.
  - e. what is.

9. Which of the following is a normative statement?
- a. An increase in government spending on policing will reduce crime.
  - b. An increase in the excise tax on beer will reduce its consumption.
  - c. The failure rate on the November 2009 Economics 1 paper was 35%.
  - d. A tax cut will cause higher inflation.
  - e. Alcohol consumption should be taxed more heavily than smoking.
10. Which of the following statements is positive?
- a. The new South Africa is better than the old South Africa.
  - b. Unemployment is a greater problem than inflation.
  - c. The South African government ought to introduce policies to reduce the unemployment rate, not the inflation rate.
  - d. Poor countries have 58% of the world's population, but receive only 4% of the world income.
  - e. The world distribution of income is inequitable, because the poor countries are denied their fair share of income and resources.

## **DISCUSSION QUESTIONS**

### **Question 1**

Read the section on *Why economists disagree* (Mohr and Fourie, 2008:11).

Find an example (something that you heard on the television, radio or read in the newspaper or magazine) where economists have different views of the economy and made different forecasts of what was going to happen.

**Answers to Study Unit 1**

**Multiple Choice Questions**

1. d  
The fundamental economic problem is that of choice in the face of scarcity. This problem is encountered in all communities, regardless of the dominant economic system or the pattern of distribution. The only circumstances that would make economics irrelevant would be those where resources were not scarce.
2. c  
This is a straightforward question about the basic economic problem of choice in the face of scarcity. This problem arises from the coexistence of unlimited human wants and limited resources to satisfy those wants.
3. a  
This final question relating to the fundamental economic problem stresses that, although individual actors behave rationally, and market mechanisms do work efficiently under most circumstances, a basis for the systematic study of economics is established by the scarcity of real resources relative to material wants.
4. b  
This is a simple definition question. Opportunity cost is a measure of the *best* alternative sacrificed when an economic decision is made.
5. b  
This is a simple definition question. Microeconomics concerns itself with the systematic study of the economic behaviour of individual economic actors, such as households, firms, borrowers and lenders. The statements in a, c and d all reflect the economy-wide concerns of macroeconomics.
6. e  
Macroeconomics concerns itself with the systematic study of aggregative economic behaviour, and directs its attention to economy-wide phenomena. The statements in a and d reflect these economy-wide concerns of macroeconomics, while b and c are in the domain of microeconomics.

7. b

This simple introductory question concerning the production possibility frontier (ppf) addresses an area that is frequently misunderstood by students. The axes of a simple two-good ppf show the physical quantities of output produced (in tons, litres, bushels, bags etc.), not values of output.

8. c

Normative statements are statements of opinion or judgement and broadly concern what ought to be.

9. e

The statements in a to d are all statements of alleged fact. Statement e expresses a value judgement and is consequently the only normative statement.

10. d

The positive statement of alleged fact, concerning what is rather than what ought to be, is statement d.

### **Discussion Question**

1. The above activity proves that economics is a social science that studies humans and their behaviour and tries to explain it. This is why analysts sometimes give different interpretations of the same (positive) economic indicators and suggest different solutions. (Their normative judgments differ.)

**STUDY UNIT 2: A CLOSER LOOK AT THE ECONOMIC PROBLE OF SCARCITY**

**Multiple Choice Questions**

1. In economics, the how or production question refers to
  - a. the problem of allocating scarce resources among competing users.
  - b. the ways in which factors of production may be combined to produce output.
  - c. the way in which a firm decides on its profit-maximising rate of output.
  - d. the problem of how output is distributed among individuals and groups in society.
  - e. the way in which the state sets output targets in a command economy.
  
2. The basic questions of what to produce and for whom to produce are essentially interdependent because
  - a. a particular level of output may be produced by many different combinations of inputs.
  - b. different patterns of factor use generate different patterns of income distribution.
  - c. income and wealth are concentrated in the hands of the economically powerful.
  - d. markets cannot be relied upon to allocate resources efficiently.
  
3. In economics, the four main factors of production are
  - a. land, human capital, physical capital and finance capital.
  - b. natural resources, man-made resources, labour and money.
  - c. land, capital, labour and notes and coins in circulation.
  - d. human capital, physical capital, financial capital and entrepreneurship.
  - e. land, labour, capital and entrepreneurship.
  
4. A commercial forest planted to provide raw material inputs into a wood pulp mill would be viewed by economists as
  - a. part of the factor of production, land.
  - b. part of the factor of production, labour, since labour has to be used to create and maintain the commercial forest.
  - c. part of the capital stock of the economy.
  - d. an unproductive use of land, and therefore not a factor of production.
  - e. an unproductive asset, since it may take several years before the forest is ready for harvesting.

5. If all factors of production are equally suitable for the production of different goods, then the production possibility frontier (ppf) is likely to be \_\_\_\_\_ in shape, illustrating a situation of \_\_\_\_\_ opportunity costs. However, if factors of production are not equally suitable for the production of different goods, then the ppf will be \_\_\_\_\_ in shape, reflecting a situation of \_\_\_\_\_ opportunity costs.
- linear; increasing; concave; constant
  - linear; constant; concave; increasing
  - concave; constant; linear; increasing
  - concave; increasing; linear; constant
  - linear; increasing; concave; increasing
6. A shift in the production possibility frontier would be caused by all but one of the following. Which one of the following events would not cause a shift?
- A rise in the price of one or both of the goods being produced
  - An improvement in the technology used to produce one of the goods
  - An improvement in the technology used to produce both of the goods
  - An increase in the quantity of resources available in the economy
  - A reduction in the quantity of resources available in the economy
7. Which of the following will bring about an inward shift of the production possibility frontier?
- An increase in the level of unemployment
  - A decrease in the demand for goods and services
  - An increase in the allocation of resources to the production of capital goods
  - An increase in the number of skilled people emigrating
  - a, b and d could all be associated with an inward shift of the ppf
8. In a command economy, resource allocation is brought about by
- price signals driven by relative price changes.
  - the collective preferences of central planners.
  - the behaviour of self-interested individuals striving to maximise their own well-being.
  - the principle of consumer sovereignty.
  - the desire of producers to maximise profits.

**Discussion Questions**

1. Use a production possibility frontier to distinguish between:
  - a: maximum attainable combinations.
  - b: attainable but inefficient combinations.
  - c: unattainable combinations of the production of two goods.
  
2. Compare the advantages of the market system over the traditional system and the command system.

**Answers to Study Unit 2**

**Multiple Choice Questions**

1. b

The how or production question refers to the optimal choice of technique; that is, the best way of combining scarce factor inputs to produce output.

2. e

Patterns of demand that drive allocative decisions in a market economy are themselves clearly influenced by distribution factors. A highly skewed distribution of national income will generate a pattern of purchasing power very different from that which would emerge if the same level of income were distributed more equally across households.

3. e

The basic factors of production are land, labour, capital and entrepreneurship.

4. a

A commercial forest planted to provide raw material inputs for a wood pulp mill is a produced resource, and forms part of the production factor land (or natural resources). It is clearly not a human resource, as in b, and is not capital that can be used repeatedly, while d is a nonsensical statement. Durability, and the necessity of waiting for output to be produced are characteristics associated with capital, hence such a forest would not be an unproductive asset, as in e.

5. b

This relatively straightforward question explores the associations between the shape of the frontier and the underlying cost situation. A linear ppf is associated with constant relative opportunity costs and a concave frontier with increasing opportunity costs

6. a

Shifts of the ppf arise from improvements in productivity, affecting either or both of the goods being produced, or from changes in resource availability over time. Changes in price will not affect the frontier.

7. d

The position of the ppf is unaffected by changes in prices, demand patterns or levels of unemployment, while reallocation of resources will bring about a movement along the frontier. A shift of the frontier to the left could arise from a deterioration in the level of technology or, as here, from a reduction in available resources.

8.b

This simple question addresses the operation of a command economy, which does not operate on the basis of price and profit signals, or through the unconscious interplay of self-interested economic actors, but rather by fiat, through the conscious actions of *dirigiste* planners, who steer resources, set production targets and determine rewards.

### Discussion Questions

1. You should have drawn a figure like figure 2.1, page 19 of your prescribed text book
  - a. Points A,B,C,D,E and F are maximum attainable combinations
  - b. Point H is attainable, but inefficient
  - c. Point G is an unattainable combination
  
2. Traditional system
  - a. A rigid system: slow to adapt to changing conditions
  - b. Subsistence economies tend to stagnate
  - c. Economic activity is secondary to religious and cultural values

#### Command system

- a. Political planners decide what to produce. They own all the factors of production- no motive for improvement
- b. No profit motive – leads to inefficient production relative to the market system

Market system

- a. Adapt and innovate in the pursuit of profit
- b. Self-interest promotes economic activity
- c. Co ordination occurs without any planning

**STUDY UNIT 3: THE CIRCULAR FLOW OF INCOME AND SPENDING**

**Multiple Choice Questions**

1. Simple economies can be described in terms of three major economic flows. These are
  - a. income, spending and saving.
  - b. spending, production and saving.
  - c. income, saving and investment.
  - d. income, spending and production.
  - e. income, spending and net exports.
  
2. When considering the following economic variables, we can say that
  - a. capital, wealth and income are stock variables, whereas investment and profit are flows.
  - b. investment, income and profit are stock variables, whereas capital, wealth and natural resources are flows.
  - c. capital, wealth and natural resources are stock variables, whereas investment, profit and loss are flows.
  - d. income is a stock variable, but investment is a flow.
  - e. capital, wealth and population size are stock variables, as are investment, profit and savings.
  
3. Which of the following would not be viewed by economists as a firm?
  - a. Mancosa
  - b. Pizza Hut
  - c. Spoornet
  - d. The Consumer Council
  - e. A cell phone service provider such as MTN
  
4. The two major types of market in the simple circular flow of income and expenditure are
  - a. public markets and private markets.
  - b. free markets and regulated markets.
  - c. factor markets and foreign exchange markets.
  - d. goods markets and service markets.
  - e. goods markets and factor markets.

5. Which of the following statements is incorrect?
- The three major flows in the economy are total production, total income and total spending.
  - There are two sets of markets in a simple economy: goods markets and factor markets.
  - In the simple circular flow of economic activity, “real” flows of goods and factors, and financial flows move in opposite directions.
  - Firms are buyers in goods markets and sellers in factor markets, while households are buyers in factor markets and sellers in goods markets.
  - Firms are the largest purchasers of capital goods.
6. In the simple circular flow of economic activity, goods and services flow via
- factor markets to goods markets.
  - factor markets from households to firms.
  - goods markets from households to firms.
  - factor markets from households to firms.
  - goods markets from firms to households.
7. In the circular flow of economic activity, \_\_\_\_\_ households in \_\_\_\_\_ markets represents \_\_\_\_\_ firms. Taxes and imports represent \_\_\_\_\_ the circular flow.
- expenditure by; goods; income to; injections into
  - expenditure by; factor; income to; withdrawals from
  - income to; factor; expenditure by; withdrawals from
  - income to; goods; expenditure by; injections into
  - expenditure by; factor; income to; injections into

8. In the circular flow of income and spending in South Africa, \_\_\_\_\_ firms in the factor market becomes \_\_\_\_\_ households, while \_\_\_\_\_ households in the goods market becomes \_\_\_\_\_ firms. Expenditure by foreigners on South African products constitutes \_\_\_\_\_ the circular flow.
- income to; spending by; income to; spending by; a leakage from
  - income to; income to; spending by; spending by; an injection into
  - spending by; income to; spending by; income to; an injection into
  - spending by; spending by; income to; income to; a leakage from
  - production of; spending by; production of; income to; a leakage from
9. In the context of the circular flow of economic activity, which of the following would not be a traditional activity of the government?
- Purchases of labour services from households
  - Purchases of capital goods from firms in goods markets
  - Provision of public goods and services
  - Transfers of tax revenues to low-income groups or regions
  - Sales of consumer goods to foreign buyers
10. In the circular flow of income and spending, i.e. the basic flow of income and spending between households and firms supplemented by the foreign, financial and government sectors
- exports are leakages from the circular flow.
  - investment is a leakage from the circular flow.
  - savings are injections into the circular flow.
  - imports are injections into the circular flow.
  - taxes are leakages from the circular flow.

### **Discussion Questions**

1. Explain the goods and services circular flow by means of a diagram.
2. Explain the income and spending circular flow by means of a diagram.
3. Explain the difference between circular flows in questions 1 and 2 above.
4. Does the monetary value differ between the two circular flows?

**Answers to Study Unit 3**

**Multiple Choice Questions**

1. d

This is a very simple question. Saving is a withdrawal or leakage from the circular flow, while net exports are merely a component of aggregate spending.

2. c

Capital (from an economist's, rather than an accountant's, point of view), the natural factor endowments of an economy, population size and the wealth of that population are all stock concepts. They are all measured at a particular point in time. Income, investment, profits and savings occur over time, and represent streams or flows. Investment, for example, represents the rate of change of the stock of capital over a particular period of time, rather than at a precise moment in time.

3. d

Despite wide variations in size, location and organisational structure, a fast food outlet such as Pizza Hut, a state-owned transport provider such as Spoornet, an education provider such as Mancosa and a cell phone company like MTN would all be seen as firms, as they all take production decisions. A Consumer Council is not a producer, but is rather a body representing buyers of goods and services.

4. e

In a simple circular flow of economic activity, without government, the foreign sector or the financial sector, the basic economic units are households (consumers) and firms (producers).

5. d

In a simple circular flow of economic activity, firms purchase factors of production from households, in the process providing rewards that are used by households to purchase goods from firms.

6. e  
This covers much the same ground as Question 5. Goods and services are sold by firms to households in goods markets
7. c  
This simple question relates to a fuller circular flow of economic activity that includes a state sector and a foreign sector. Expenditure by firms in hiring factors of production owned by households flows to the latter via factor markets, in the process providing the wherewithal to purchase goods. Taxes and imports represent leakages from the circular flow.
8. c  
This question explores the same ground as Question 7.
9. e  
In a mixed economy, government expenditure includes purchases of labour services and goods, of both a capital and a consumption nature. In addition, income redistribution is effected through taxation and transfer payments, while tax revenues are used to provide a range of public goods where unassisted provision by the private sector would be difficult. Government would not normally effect direct sales of goods to foreigners.
10. e  
This is a very simple question. Taxes reduce disposable income from which consumption expenditure is effected, and consequently constitute a leakage from the circular flow of economic activity.

### **Discussion Questions**

1. See figure 3.2, page 47 of the prescribed textbook
2. See figure 3.3, page 47 of the prescribed textbook
3. The flow is reversed (in the opposite direction. The one flow is of goods and services whilst the other is a monetary flow (a flow of money).
4. No, in money terms, the magnitudes are the same. The value of what is produced (in money terms) is equal to (or the same as) what is spent (or bought).

**STUDY UNIT 4: DEMAND, SUPPLY AND PRICES**

**Multiple Choice Questions**

1. Which of the following will not cause a shift in the demand curve for tea?
  - a. A decrease in the price of milk, a complement
  - b. An increase in the price of tea
  - c. An increase in the price of coffee, a substitute
  - d. An increase in the number of people drinking tea
  - e. An increase in the income of households
  
2. When an individual's income rises, ceteris paribus, his/her demand for beans, an inferior good
  - a. rises.
  - b. falls.
  - c. remains unchanged.
  - d. becomes more positive.
  - e. can be affected in different ways – we need additional information to provide an answer.
  
3. If milk is a normal good, then a decrease in consumers' income will definitely cause
  - a. a decrease in the demand for milk.
  - b. an increase in the demand for milk.
  - c. an increase in the supply of milk.
  - d. a decrease in the supply of milk.
  - e. an increase in the demand and supply of milk.
  
4. If there is a successful advertising campaign promoting the health benefits of drinking milk, then, ceteris paribus
  - a. the demand for milk will increase.
  - b. the demand for milk will decrease.
  - c. the supply of milk will increase.
  - d. the supply of milk will decrease.
  - e. the demand and supply of milk will increase.

5. In the market for cream, which of the following events would increase demand, *ceteris paribus*?
  - a. Increased health fears regarding the consumption of too much fat (cream contains fat)
  - b. A fall in the income of consumers
  - c. An increase in the price of scones, a complement
  - d. A drop in the price of yoghurt, a substitute
  - e. A decrease in the price of waffles, a complement
  
6. If the price of domestic airline tickets increases, then, *ceteris paribus*:
  - a. the demand for domestic air travel will increase.
  - b. the demand for car rentals, a complement in consumption, will increase.
  - c. the demand for domestic air travel will decrease.
  - d. the demand for car rentals, a complement in consumption, will decrease.
  - e. the demand for car rentals, a substitute in consumption, will decrease.
  
7. Market demand
  - a. shows how much an individual is willing and able to consume at each and every price.
  - b. is the horizontal summation of all the individual demand curves in a market.
  - c. is the vertical summation of all the individual demand curves in a market.
  - d. is a positive slope.
  - e. shows how much individuals are willing to supply at each and every price.
  
8. In the market for air travel, which of the following variables would decrease demand, *ceteris paribus*?
  - a. An increase in rental rates for hired cars, a substitute
  - b. A rise in income of tourists
  - c. A rise in the price of air travel
  - d. A rise in the price of hotel accommodation, a complement
  - e. A drop in the price of air travel

9. Which of the following is true with regard to a decrease in the demand for cheese, *ceteris paribus*?
- a. It is represented by a rightward shift of the demand curve.
  - b. It is represented by a movement upward along the demand curve.
  - c. It is represented by a movement downward along the demand curve.
  - d. It is most likely caused by an increase in the price of the good.
  - e. It is represented by a leftward shift of the demand curve.
10. In the market for bicycles, which of the following variables would decrease demand, *ceteris paribus*?
- a. An increase in the price of bicycles
  - b. A decrease in the price of bicycles
  - c. A fall in the income of consumers
  - d. A decrease in the price of bicycle pumps, a complement
  - e. An increase in the price of motorbikes, a substitute

### **Discussion Questions**

1. Mention any two factors that can cause a rightward shift of the demand curve.
2. Mention any two factors that can cause a leftward shift of the demand curve.
3. What factor will cause a movement along a demand curve?
4. Below are some of the extracts from newspaper headlines or reports. In each case, the supply of the product or products will be affected. Explain how the supply will be affected and, where applicable, also mention which factor caused the change in supply.
  - 4.1 “Wheat prices will decrease due to a good harvest.” What will be the effect on the supply of All Bran flakes?
  - 4.2 “Price of copper wire increases.” What effect will this have on the availability of portable radios?

**Answers to Study Unit 4**

**Multiple Choice Questions**

1 b

A change in the price of the good itself will not cause a shift in the demand curve (only a movement along it)

2 b

When income rises and the good in question is inferior, then demand for this good will fall: the demand curve will shift to the left.

3 a

If income decreases and the good in question is normal, then demand for this good will fall: the demand curve will shift to the left.

4 a

Anything that increases the preferences (or tastes) of consumers for a particular good will increase the demand for the good in question (in this case, milk).

5 e

A drop in the price of a complement will increase the demand for the good in question (in this case, cream).

6 d

If the price of a particular good (in this case, domestic air travel) increases then, ceteris paribus, we can expect this to cause a decrease in the demand for a complementary good (in this case, car rentals). Answers a and c are not correct, as a change in the price of airline tickets will cause a change in the quantity of airline tickets demanded (a movement along the demand curve), not a change in demand.

7 b

By definition

8 d

A rise in the price of a complement will decrease the demand for the good in question (air travel). Answer a will cause an increase in demand for air travel as the substitute becomes more expensive. Answer c is not correct as this does not lead to a decrease in demand but a decrease in the quantity demanded (remember the difference between a movement along the demand curve and a shift).

9 e

A decrease in the demand for cheese is associated with a shift of the demand curve to the left. Remember the different terminology distinguishing a movement along a demand curve (referred to as a change in quantity demanded) as opposed to a shift of the demand curve (referred to simply as a change in demand).

10 c

A fall in income would decrease the demand for a good (which we assume is normal unless otherwise stated). Answer a is not correct as this does not lead to a decrease in demand but a decrease in the quantity demanded (remember the difference between a movement along the demand curve and a shift).

### Discussion Questions

1. You could have given any two of the following:

- An **increase** in the price of substitutes
- A **decrease** in the price of complements
- An **increase** in income
- A **stronger** desire to buy
- A **larger** population
- An **increase** in the expected future price of the product

Please note that the direction of change is important. If you did not indicate the direction (increase or decrease) your answer would have been wrong and you would lose marks in an assignment or examination. For example, if your answer only referred to a change in income, you would not have received any marks.

2. The same determinants apply as in question 1 above. However, the direction will differ and be the opposite. See figure 7.3 of the prescribed text book as well.

3. Only the **price** of the product

4.1 Wheat and All Bran Flakes are complements in production. When supply of wheat increases due to a good harvest, the supply of All Bran Flakes will therefore also increase, and producers will supply the flakes at lower prices. The supply will shift to the right.

4.2 Copper wire is a production input for portable radios. If it becomes more expensive, its supply will decrease. The total production cost of portable radios will increase, causing producers to supply less. The supply curve will shift to the left.

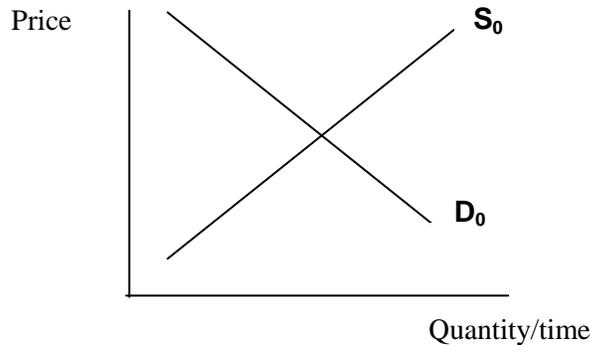
**STUDY UNIT 5 : DEMAND AND SUPPLY IN ACTION**

**Multiple Choice Questions**

1. In the market for diamonds, assuming everything else remains unchanged, the equilibrium price of diamonds will decrease if
  - a. there is a shortage of diamonds.
  - b. the price of gold, a complement, decreases.
  - c. the supply of diamonds decreases.
  - d. the price of cubic zirconia's, a substitute, increases.
  - e. there is a technological improvement in mining equipment.
  
2. There is an increase in the number of adverts highlighting the dangers of consuming artificial sweeteners (as opposed to sugar). Which of the following is likely to occur in the market for sugar, as a result of this?
  - a. An increase in both price and equilibrium quantity traded
  - b. A decrease in price and an increase in equilibrium quantity traded
  - c. A decrease in both price and equilibrium quantity traded
  - d. An increase in price and a fall in equilibrium quantity traded
  - e. None of the above is likely to result
  
3. In the market for first year economics textbooks, assuming everything else remains unchanged, the equilibrium price of textbooks will increase if
  - a. there is a surplus of textbooks.
  - b. the price of university education, a complement, increases.
  - c. the supply of textbooks increases.
  - d. the cost of the publication of textbooks increases.
  - e. there is a drop in the cost of paper necessary to produce textbooks.

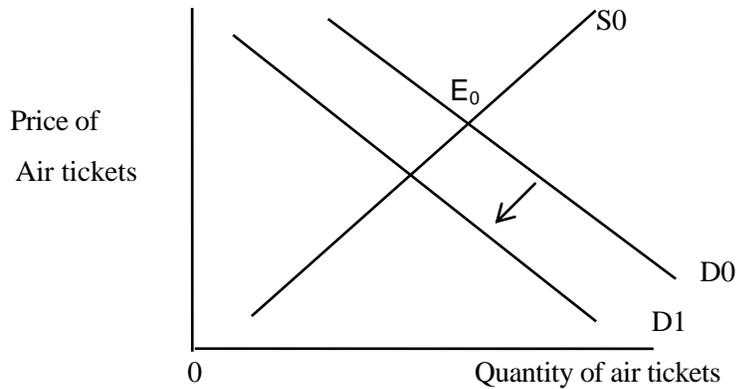
4. If the price and the quantity of curtains exchanged falls, it is likely that
  - a. demand for curtains has increased.
  - b. demand for curtains has decreased.
  - c. supply of curtains has decreased.
  - d. supply of curtains has increased.
  - e. supply and demand for curtains have both increased.
  
5. If the price of powdered milk, a substitute for fresh milk, falls then
  - a. the supply curve of fresh milk will shift to the right.
  - b. the demand curve for fresh milk will shift to the right.
  - c. the equilibrium quantity and price of fresh milk will not change.
  - d. the quantity of fresh milk demanded will increase.
  - e. the demand curve for fresh milk will shift to the left.
  
6. The equilibrium price of wine will increase if, ceteris paribus,
  - a. consumers are more aware of the risks of alcohol abuse.
  - b. there is a surplus of wine.
  - c. the supply of wine decreases.
  - d. wine is a normal good and income decreases.
  - e. all wine adverts are banned.

Use the diagram below to answer Question 7.



7. The diagram shows the demand and supply curves for South African biltong. Assuming everything else remains unchanged, the equilibrium price of biltong will decrease if
- there is a shortage of biltong.
  - the price of beer, a complement, increases.
  - the supply of biltong decreases.
  - the price of peanuts, a substitute, increases.
  - there is an animal disease that affects the supply of biltong.
8. Which of the following will definitely cause an increase in the equilibrium price
- An increase in both demand and supply
  - A decrease in both demand and supply
  - An increase in demand combined with a decrease in supply
  - A decrease in demand combined with an increase in supply
  - Any of the above, depending on the circumstances
9. Which of the following will definitely result in a fall in equilibrium price?
- An increase in both demand and supply
  - A decrease in both demand and supply
  - An increase in demand together with a decrease in supply
  - A decrease in demand together with an increase in supply
  - A decrease in supply only

Use the diagram below to answer Question 10.



10. The diagram depicts a decrease in the demand for domestic air tickets in South Africa. If at the same time there were a rise in the cost of insurance of airlines, then in comparison with the original equilibrium  $E_0$ , there would be
- an increase in equilibrium price and quantity.
  - an increase in equilibrium quantity but a decrease in price.
  - a decrease in equilibrium quantity but an increase in price.
  - a decrease in equilibrium quantity but an indeterminate effect on price.
  - an increase in equilibrium quantity but an indeterminate effect on price.

### **Discussion Questions**

1. Explain, with the aid of a diagram, what will happen in a market if government imposes maximum price. Can a black market develop in such a case? Explain.
2. What will happen in a market if government imposes a maximum price above the equilibrium price?

**Answers to Study Unit 5**

**Multiple Choice Questions**

1. e

A technological improvement will cause an increase in the supply of diamonds, which will shift the supply curve to the right, causing the equilibrium price to fall.

2. a

This will cause the demand curve for sugar to shift to the right (as people prefer sugar to artificial sweeteners), which brings about an increase in the equilibrium price and quantity of sugar traded.

3. d

If there is an increase in the cost of publication of textbooks then this will cause the supply of textbooks to decrease (supply curve to shift to the left). As a result the price of textbooks will increase, whilst the quantity traded will decrease.

4. b

It is likely that the demand for curtains has decreased. This results in the demand curve shifting to the left and a fall in the price and equilibrium quantity of curtains traded.

5. e

If the price of a substitute product falls (in this case, powdered milk), then this will cause a fall in the demand for our product in question (fresh milk). Hence the demand curve for fresh milk will shift to the left.

6. c

If the supply of wine decreases, the supply curve will shift to the left causing an increase in the equilibrium price of wine.

7. b

If the price of a complement increases (in this case, beer), then demand for our product (biltong) will decrease causing the demand curve to shift to the left. As a result the price of biltong will fall.

8. c

An increase in demand combined with a decrease in supply will definitely result in an increase in price (the other options result either in a decrease in price or an indeterminate effect on price).

9. d

A decrease in demand combined with an increase in supply will definitely result in a decrease in price (the other options result either in an increase in price or an indeterminate effect on price).

10. d

There has already been a decrease in demand (shown on the diagram). An increase in the cost of insurance for airlines will cause a decrease in supply (an increase in the input cost of providing airline tickets). This will result in a decrease in the equilibrium quantity traded and an indeterminate effect on price.

### **Discussion Questions**

1. The graph should look like the Figure 8.9 in the prescribed textbook.

When government imposes a maximum price which is below the equilibrium price (such as  $P_m$ ) an excess demand (the difference between  $Q_2$  and  $Q_1$ ) will develop. The quantity traded will be equal to the quantity supplied at the maximum price ( $Q_1$  in the figure). Consumers are willing to pay a higher price ( $P_1$ ) in order to obtain this quantity. Any consumer who succeeds in obtaining the product at price  $P_m$  (the official price) can therefore try to sell it to other consumers at a much higher price ( $P_1$ ), thus making a profit. Think, for example, of the World Cup Soccer and the price some potential spectators are willing to pay for ticket. This is what black market activity is all about and the reason why it exists in a case like this.

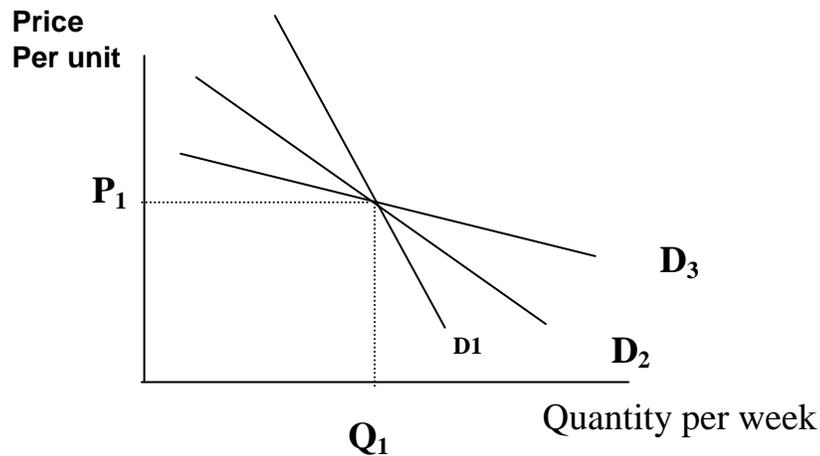
2. If a maximum price is set above the equilibrium price, it will have no effect on the market price or the quantity exchanged. Prices and quantities will still be determined by the interaction between demand and supply (market forces).

**STUDY UNIT 6 : DEMAND AND SUPPLY IN ACTION**

**Multiple Choice Questions**

1. You are told that when the price of beef fell by 50%, the quantity demanded rose by 100%.  
The elasticity of demand for beef would thus be
  - a. price elastic.
  - b. unitary price elastic.
  - c. price inelastic.
  - d. income elastic.
  - e. income inelastic.
  
2. The demand for cooldrink is price elastic if
  - a. an increase in price results in an increase in total revenue.
  - b. a decrease in price results in an increase in total revenue.
  - c. the good is a necessity.
  - d. a decrease in price results in a decrease in total revenue.
  - e. the quantity of cooldrink demanded is not sensitive to changes in price.
  
3. Total revenue from the sale of biltong will increase if
  - a. income decreases and biltong is a normal good.
  - b. its price rises and demand is unitary price elastic.
  - c. income increases and biltong is viewed as an inferior good.
  - d. its price falls and demand is price elastic.
  - e. its price rises and demand is price elastic.

Use the figure below to answer Question 4.



4. At price  $P_1$  and quantity  $Q_1$ 
  - a. demand curve  $D_1$  is the most price elastic.
  - b. demand curve  $D_2$  is the most price elastic.
  - c. demand curve  $D_3$  is the most price elastic.
  - d. the coefficient of the price elasticity of demand is the same on  $D_1$ ,  $D_2$  and  $D_3$ .
  - e. the coefficient of the price elasticity of demand across the three demand curves cannot be compared from the information given.
  
5. If the cross elasticity of demand between bread rolls and cheese is  $-3,0$ , this implies that these goods are
  - a. luxuries.
  - b. complements.
  - c. necessities.
  - d. substitutes.
  - e. income inferior goods.

6. If the cross elasticity of demand for two goods, A and B, is +5,0, then this implies that these goods must be
- luxuries.
  - complements.
  - necessities.
  - substitutes.
  - income inferior goods.
7. Ceteris paribus, every time the price of cashew nuts falls by R1/kg, the quantity of cashew nuts demanded increases by 10kg per day. From this we can infer that (\*\*\*)
- the demand curve for cashews is not linear.
  - the higher the price of cashews, the more price inelastic the demand curve becomes.
  - the price elasticity of demand for cashews is constant.
  - as price rises, demand at first becomes more price elastic and then later becomes less price elastic.
  - as price falls, demand becomes less price elastic.
8. If the income elasticity of demand for candles is +0,5, then this implies that candles are
- inferior goods.
  - luxury goods.
  - durable goods.
  - capital goods.
  - necessities.
9. Ceteris paribus, if a 10% increase in income has caused a 20% decrease in the quantity of paraffin demanded (at the current price), then from this we can conclude that paraffin is
- price elastic.
  - a necessity.
  - a luxury good.
  - an inferior good.
  - price inelastic.

10. If the income elasticity of demand for a good is  $-0,5$ , then this implies that this good must be a(n)
- necessity.
  - luxury.
  - inferior good.
  - substitute.
  - complement.

**Discussion Questions**

- Define price elasticity of demand.
- Explain why it is important for a supplier of a good or service to have information about the price elasticity of demand for his or her product.
- List the five different categories of price elasticity of demand and explain the significance of each category.
- Define income elasticity of demand.
- Distinguish between normal and inferior goods.
- Distinguish between essential and luxury goods.
- Explain why it is important to suppliers of a product to have information about the income elasticity of the demand for their product.

**Answers to Study Unit 6**

**Multiple Choice Questions**

1. a

This relates to price and quantity demanded so the relevant concept must be price elasticity of demand. The percentage change in quantity demanded exceeds the percentage change in price so demand is price elastic

2.b

If demand is price elastic and price falls then the percentage rise in quantity demanded will exceed that percentage fall in price, so total revenue will rise.

3.d

If price falls and demand is price elastic, then the percentage increase in the quantity demanded will exceed the percentage fall in price causing total revenue to rise.

4. c

This question explores the link between slope and the price elasticity of demand – a line that confuses many students. This case represents one of the few examples where slope is a reasonably intuitive indication of elasticity. At a particular price/quantity combination, demand curve  $D_3$  is the most price elastic.

5. b

A negative sign for cross elasticity of demand implies that the goods must be complements (an increase in the price of one good, results in a decrease in the quantity demanded of the complement, *ceteris paribus*).

6. d

A positive sign for cross elasticity of demand implies that the goods must be substitutes (an increase in the price of one good, results in an increase in the quantity demanded of the substitute, *ceteris paribus*).

7. e

This is a challenging question. The demand curve for cashews is linear, yet we know that price elasticity of demand varies continuously along such a linear demand curve. As price falls and quantity demanded increases, so demand becomes progressively less price elastic, therefore e is correct

8. e

A positive sign for income elasticity of demand implies that the good must be normal and, furthermore, if the value lies between 0 and 1, it must be a necessity

9. d

We are told that as income rises the quantity of paraffin demanded falls, which implies that paraffin must be an inferior good

10. c

If income elasticity of demand is negative for a good then this implies that the good must be inferior.

### **Discussion Questions**

1. Price Elasticity of Demand is defined as the responsiveness of the change in the price to the quantity demanded. It is calculated as the percentage change in the quantity demanded divided by the percentage change in the price of the product.
2. Price elasticity of demand indicates to the producer what will happen to his/her total revenue when the price of the product or service changes, in other words, it indicates whether revenue will increase or decrease.
3. Refer to table 9.2 of the prescribed text page 163. The third column is not part of the syllabus.
4. The income elasticity of demand measures the responsiveness of the quantity demanded to changes in income. It is calculated as the percentage change in the quantity demanded of the product divided by the percentage change in consumers' income.

5. Normal goods are defined as goods that have a positive income elasticity. An increase in income will result in an increase in the quantity demanded of the product.

Inferior goods have a negative income elasticity. An increase in income leads to a decrease in the quantity demanded.

6. Normal goods are further classified into essential and luxury goods. When the income elasticity is greater than one, the good is a luxury good. When the income elasticity is positive but less than one, then the good is an essential good.

7. Producers want to know how the quantity demanded of the products or services they supply, will be affected (increase or decrease) when consumers' income increases. Read page 168 of the prescribed text relating to the prediction of Japanese entrepreneurs in the 60's.

**STUDY UNIT 7: THE THEORY OF PRODUCTION AND COST****Multiple Choice Questions**

1. Which of the following statements is correct?
  - a. The short run is a time period of one year or less.
  - b. The short run is a period of time during which the quantities of all inputs can be varied, but technology is held constant.
  - c. The short run is a period of time during which the quantity of at least one input is fixed and the quantities of the other inputs can be varied.
  - d. The long run is a period of time during which the quantities of all factor inputs are fixed.
  - e. The time period separating the short run from the long run is at least 3 months.

Answer Questions 2 and 3 with reference to the following table, which shows the short-run production function of a polo ball manufacturer.

Number of machines	Number of workers	Output (polo balls / day)
8	0	0
8	1	6
8	2	14
8	3	23
8	4	30
8	5	34
8	6	36

2. What is the average product of labour when two workers are employed?
  - a. 3 polo balls
  - b. 7 polo balls
  - c. 8 polo balls
  - d. 14 polo balls
  - e. 28 polo balls

3. Diminishing marginal returns set in when the \_\_\_\_\_ worker is added to the production process.
  - a. second
  - b. third
  - c. fourth
  - d. fifth
  - e. sixth
  
4. When the marginal product of labour is less than the average product of labour
  - a. the average product of labour is decreasing.
  - b. total product is increasing at an increasing rate.
  - c. the marginal product of labour is increasing.
  - d. the marginal product of labour curve is positively sloped.
  - e. the firm is experiencing increasing marginal returns.
  
5. Suppose that a shoe manufacturer that employs 6 workers is able to increase the average product of labour from 5 pairs of shoes per hour to 6 pairs of shoes per hour by hiring a seventh worker. The seventh worker's hourly marginal product is
  - a. 1 pair of shoes.
  - b. 7 pairs of shoes.
  - c. 11 pairs of shoes.
  - d. 12 pairs of shoes.
  - e. 30 pairs of shoes.
  
6. The vertical distance between the total cost and the total variable cost curves
  - a. decreases as output increases.
  - b. increases as output increases.
  - c. is equal to average fixed cost.
  - d. is equal to total fixed cost.
  - e. is equal to marginal cost.
  
7. The vertical distance between the average total cost curve and the average variable cost curve
  - a. increases as output increases.
  - b. decreases as output increases.
  - c. is equal to total variable cost per unit of labour.
  - d. is equal to total variable cost.
  - e. is negative.

8. The marginal cost curve intersects the
  - a. ATC, AVC and AFC curves at their minimum points.
  - b. ATC and AFC curves at their minimum points.
  - c. AVC and AFC curves at their minimum points.
  - d. ATC and AVC curves at their minimum points.
  - e. TC and TVC curves at their minimum points.
  
9. When the marginal cost curve is above the average total cost curve
  - a. the average fixed cost curve is rising.
  - b. the average fixed cost curve is horizontal.
  - c. the marginal cost curve is falling.
  - d. the marginal cost curve reaches a minimum.
  - e. the average total cost curve is rising.
  
10. Marginal cost is the amount that
  - a. total cost increases when one more labourer is hired.
  - b. fixed cost increases when one more labourer is hired.
  - c. variable cost increases when one more labourer is hired.
  - d. total cost increases when one more unit of output is produced.

fixed cost increases when one more unit of output is produced.

**Discussion/Calculation Questions**

1. Complete the table below:

<u>Production units</u>	<u>Total fixed costs</u>	<u>Total variable costs</u>	<u>Total costs</u>	<u>Average total cost</u>	<u>Marginal cost</u>
0	100		100		
1			110		10
2			130	65	
3			166		
4			220		
5			300	60	80

2. Use a diagram to illustrate the relationship between average fixed cost, average variable cost, average total cost and marginal cost.
3. Use two diagrams to illustrate the relationship between a firm's cost structure and production of its variable input.

**Answers to Study Unit 7****Multiple Choice Questions**

1. c  
By definition. Note that option b is the definition of the long run, and that options a and e are incorrect because there is no fixed amount of time separating the short run from the long run.
2. b  
 $AP_L = TP_L/L = \text{output/number of workers} = 14/2 = 7$
3. c  
Diminishing marginal returns set in when the marginal product of an additional worker is less than the marginal product of the previous worker. Recall that marginal product of labour is calculated as  $\Delta TP_L/\Delta L$ .

Refer to the following table (note the addition of the column headed marginal product).

Number of machines	Number of workers	Output (polo balls / day)	Marginal product
3	0	0	
3	1	6	6
3	2	14	8
3	3	23	9
3	4	30	7
3	5	34	4
3	6	36	2

4. a  
See Figure 11-2 (p. 207) for a graphic representation of the relationship between total product, average product and marginal product.

5. d

Consider the following table (note the addition of the column headed total product).

<b>Labour</b>	<b>Average product</b>	<b>Total product (= AP × L)</b>	<b>Marginal product</b>
6	5	30	-
7	6	42	12

6. d

$TC = TFC + TVC$  i.e. the distance between the TC and TVC curves =  $TC - TVC = TFC$ .

7. b

Since average fixed cost is always falling as output increases, and as average fixed cost is the difference between average total and average variable cost ( $ATC = AFC + AVC$ ), the ATC and AVC curves must approach each other as output increases.

8. d

The ATC and AVC curves are U-shaped curves (hence both reach minimum points), but the AFC curve is an L-shaped curve and the TC and TVC curves are reverse S-shaped curves.

9. e

From the usual average-marginal relationship, when the marginal cost curve is above the average total cost curve, both the average total cost curve and the marginal cost curve must be rising.

10. d

By definition. Note that marginal cost is the amount by which total cost increases when one more unit of output (not labour) is produced.

**Discussion/Calculation Questions**

1.

<u>Production units</u>	<u>Total fixed costs</u>	<u>Total variable costs</u>	<u>Total costs</u>	<u>Average total cost</u>	<u>Marginal cost</u>
0	100(given)	0	100(given)	0	0
1	100	10	110(given)	110	10(given)
2	100	30	130(given)	65(given)	20
3	100	66	166(given)	55.3	36
4	100	120	220(given)	55	54
5	100	200	300(given)	60(given)	80(given)

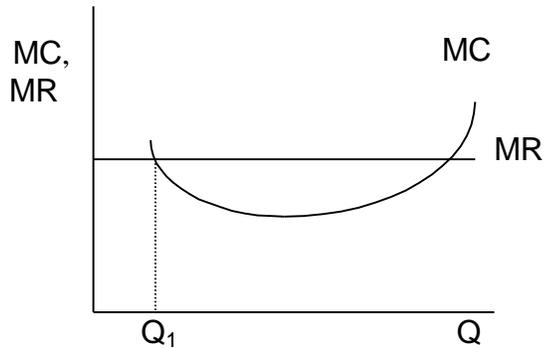
2. You should have drawn a figure like Figure 11.6 in the prescribed textbook, page 212. Take note of the U shape.
3. You should have drawn figures like the two in Figure 11.7, page 213 of the prescribed text book.

**STUDY UNIT 8: PERFECT COMPETITION**

**Multiple Choice Questions**

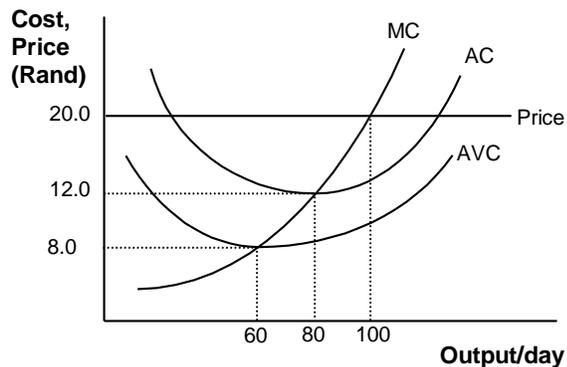
1. A perfectly competitive firm is referred to as a
  - a. price giver.
  - b. price taker.
  - c. price maker.
  - d. price cutter.
  - e. price setter.
  
2. Which of the following is not a characteristic of a competitive market?
  - a. No collusion among sellers
  - b. Many buyers
  - c. No price floors or price ceilings
  - d. Large initial capital outlays
  - e. No product differentiation
  
3. If a firm in a perfectly competitive industry raises its price above market price
  - a. sales will fall slightly.
  - b. sales will stay the same.
  - c. sales will drop to zero.
  - d. all other firms in the industry will follow.
  - e. it will increase profits, but only in the short run.
  
4. If a firm faces a perfectly elastic demand curve for its product, then
  - a.  $MR = AR = P$
  - b.  $MR = AR = TR/P$
  - c.  $MR = TR \times P$
  - d.  $MR = AR \times P$
  - e.  $MR = TR/AR$

Use the diagram below to answer Question 5



5. At  $Q_1$  in the diagram above, the firm is
  - a. maximising profits.
  - b. minimising losses.
  - c. in equilibrium.
  - d. maximising losses.
  - e. stockpiling inventories.
  
6. In a perfectly competitive market, the market price is R20. If the last unit of output that the firm produced cost the firm R18, the firm would maximise profits if it were to
  - a. shut down.
  - b. expand output.
  - c. contract output.
  - d. increase the price of output.
  - e. leave output unchanged – the firm is currently maximising profits.

Questions 7, 8 and 9 refer to the figure below which shows the price, marginal cost, and average cost curves facing a perfectly competitive firm.



7. What is the firm's profit-maximising daily output?
- 100 units
  - 140 units
  - 80 units
  - 60 units
  - No output would be produced.
8. What is the total daily revenue of the profit-maximising firm?
- R800
  - R2 000
  - R960
  - R720
  - R600
9. Total daily costs to the firm are
- R480.
  - R960.
  - greater than R960.
  - R720.
  - R640.
10. The market supply curve for a perfectly competitive industry is
- the horizontal sum of the constituent firms' MC curves above minimum MC.
  - the horizontal sum of the constituent firms' MC curves above minimum AVC.
  - the horizontal sum of the constituent firms' MC curves above minimum ATC.
  - the horizontal sum of the constituent firms' AVC curves above minimum AVC.
  - the horizontal sum of the constituent firms' ATC curves above minimum MC.

### **Discussion Questions**

1. Use a diagram to explain the equilibrium position of a firm under perfect competition which makes an economic profit in the short run. Clearly indicate the economic profit per unit of output and the firm's total economic profit.

**Answers to Study Unit 8**

**Multiple Choice Questions**

1. b  
A perfect competitor is a price taker because he/she cannot influence the price of the product sold. The price is determined by the interaction of the market demand for, and the market supply of, the product
2. d  
Large initial capital outlays would be a barrier to entry to firms. In order for perfect competition to exist, there must be many buyers and sellers of a product who have complete freedom of entry (and exit) into the market, no collusion among sellers, no government intervention creating price floors or price ceilings and no product differentiation.
3. c  
If a firm charges a price above market price, it will lose all its customers who (with perfect information of the market) will buy from a supplier selling at market price instead.
4. a  
The perfectly competitive firm faces a perfectly elastic (or horizontal) demand curve for its product, meaning that the firm receives the same price for every unit of the product sold. The extra or marginal revenue received from selling each additional unit of output equals price, which equals average revenue received from sales ( $AR = TR/Q = P \times Q/Q = P$ ).
5. d  
At  $Q_1$ ,  $MR = MC$ , but the  $MC$  curve is declining and the firm is maximising losses. Before  $Q_1$ ,  $MC > MR$  for every unit of output produced and up to  $Q_1$ , the firm only incurs losses.
6. b  
 $MR = P = 20$ .  $MC = 18$ . Therefore,  $MR > MC$  and the firm should expand output.
7. a  
The firm maximises profit by producing where  $MR = MC$ , at output = 100.
8. b  
 $TR = P \times Q = R20 \times 100 = R2\ 000$ .

9. c

Total daily costs cannot be calculated exactly from the information provided. ATC of producing 100 units of output are not labelled on the graph. But for the profit-maximising perfect competitor, total daily costs will be greater than R960 (ATC will be greater than R12, and output will exceed 80 units)

10. b

The firm will produce output where  $MR = P = MC$ . The perfectly competitive firm's MC curve therefore represents the firm's supply curve. But the firm will only undertake production if  $P \geq AVC$ . The market supply curve is the horizontal summation of all the individual firms' supply curves in the industry

### **Discussion Questions**

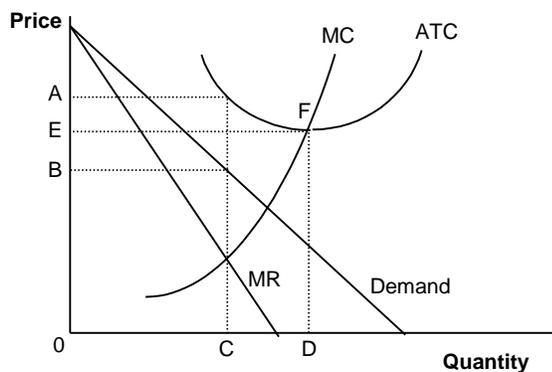
1. You should have drawn a diagram similar to Figure 12.6 (a) Note: to realize an economic profit, average revenue (AR) should be higher than average cost (AC). AR (or the price line) is therefore above the AC curve.

**STUDY UNIT 9: IMPERFECT COMPETITION**

**Multiple Choice Questions**

1. Which of the following is not true of a monopolist?
  - a. A monopolist is protected from competition.
  - b. A monopolist can earn economic profits.
  - c. A monopolist is a price maker.
  - d. A monopolist can sell as much as he/she wants to.
  - e. A monopolist faces the market demand curve.
  
2. Which of the following would not constitute a barrier to entry?
  - a. Well established brand loyalty
  - b. Control of essential factors of production
  - c. Economies of scale
  - d. No restrictions on imports
  - e. Control of distribution outlets
  
3. When the demand curve facing the firm slopes downward, marginal revenue is less than price
  - a. because of the principle of diminishing returns.
  - b. in the short run, but not in the long run.
  - c. because as output increases, the price must fall on all units.
  - d. because taxes must be paid.
  - e. None of the above

Consider the following diagram and answer Question 4.



4. The monopolist shown is
  - a. making a profit of  $AB \times OC$ .
  - b. making zero economic profit.
  - c. making a loss of  $AB \times OC$ .
  - d. making a loss of  $OB \times OC$ .
  - e. making a loss of  $EF \times OD$ .
  
5. Which of the following statements about a monopoly is true?
  - a. The monopolist has a flat demand curve because of high barriers to entry.
  - b. For a monopoly, profit will be maximised where  $P = MR$ .
  - c. In the long run, a monopolist can earn only normal profits.
  - d. Price in the long run is not usually equal to minimum average total cost.
  - e. A monopolist will always make economic profits in the long run.
  
6. If a monopoly market were to be replaced with a perfectly competitive market for the same product and with the same cost structure, we would expect:
  - a. prices to increase, output to increase and efficiency to increase.
  - b. prices to increase, output to decrease and efficiency to decrease.
  - c. prices to decrease, output to increase and efficiency to increase.
  - d. prices to decrease, output to decrease and efficiency to decrease.
  - e. prices to remain unchanged, output to decrease and efficiency to increase.
  
7. Which of the following is a likely example of monopolistic competition?
  - a. Eskom
  - b. Telkom
  - c. The wheat market
  - d. De Beers
  - e. Grocery stores
  
8. A monopolistically competitive firm maximises profits in the long run by producing where
  - a.  $P = MC$ .
  - b.  $P = \text{minimum ATC}$ .
  - c.  $P = AVC$ .
  - d.  $P = MR$ .
  - e. the demand curve is tangential to the long-run average cost curve.

9. In the short run, equilibrium for monopolistically competitive firms resembles equilibrium for a monopolist in that
- marginal cost exceeds price.
  - price equals marginal cost.
  - marginal revenue exceeds marginal cost.
  - price exceeds marginal cost.
  - marginal revenue is less than marginal cost.
10. Which of the following is not a characteristic of oligopoly?
- There are few sellers and many buyers in the industry.
  - To reduce uncertainty in the market, oligopolistic firms may collude.
  - A downward-sloping demand curve
  - Imperfect information
  - A firm in an oligopolistic market makes pricing decisions independently of the pricing decisions of another firm in the market.

**Discussion Questions**

- Define Monopolistic Competition and explain, how it differs from
  - Perfect competition
  - Monopoly
  - Oligopoly

**Answers to Study Unit 9**

**Multiple Choice Questions**

1. d  
Monopolists are constrained by demand curves and they are, therefore, not free to sell as much as they want, even though they have control over price]
2. d  
Import restrictions create entry barriers for foreign firms wanting to sell products in South Africa
3. c  
If the demand curve slopes downward, then the quantity of output demanded will increase only if price falls. If the price of extra output falls, then the marginal revenue received from the sale of this output will be less than price
4. c  
The monopolist would maximise profits by producing until at the last unit of output produced,  $MC = MR$ . This is represented by output level C. At this level of output, the monopolist would charge a price B. At this output level average total costs (ATC) are equal to A. The ATC per unit is higher than the revenue or price earned per unit. Therefore, a loss of  $A - B$  is made on the sale of each unit. The total loss experienced would therefore be equal to the loss per unit  $AB$  multiplied by the total output produced  $OC$
5. d  
Because entry into the monopoly is blocked, the monopolist is not forced through competition to increase production and in so doing, move down the ATC curve.
6. c  
Assuming that cost conditions in the perfectly competitive market and the monopolistic market were the same, firms in the perfectly competitive market would produce more output and at a lower market price than would a monopoly firm. Productive and allocative efficiency would also increase because the perfect competitor would produce at minimum ATC and where  $MC = P$ .

7. e

There are many grocery stores selling similar products but they engage in advertising and may differentiate their stores from others by selling different product brands

8. e

Economic profits under monopolistic competition cannot be sustained in the long run. New entrants are attracted by the economic profits, and will continue to enter until all economic profits have been eroded. In the long run, the monopolistically competitive firm will be in equilibrium when economic profit is zero and  $AR = AC$ . This position is represented by the tangency between the demand schedule and the firm's long-run average cost curve.

9. d

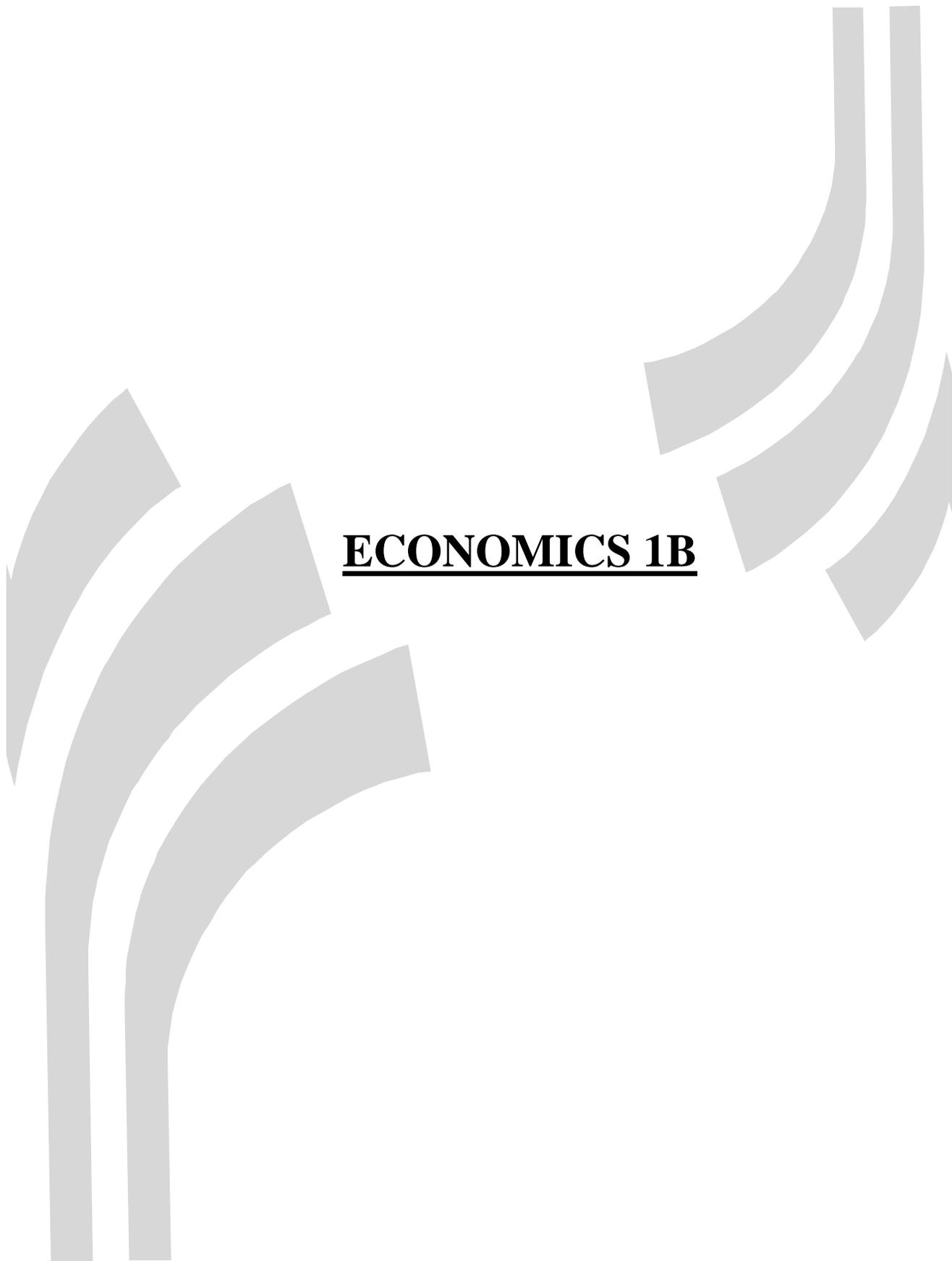
Like the monopolist, the monopolistic competitor maximises profits where  $MR = MC$ , but because  $P > MR$ ,  $P$  is also  $> MC$ . Less output is produced, and at a higher price than would have been the case had the industry been perfectly competitive (with the same cost structure).

10. e

A main characteristic of oligopoly is the high degree of interdependence between the small number of firms in the market. Each firm is therefore affected by the actions of another firm in the market. If one firm lowers prices to increase quantity demanded for its output, for example, a rival firm will also lower the price of its product to avoid losing market share.

### **Discussion Questions**

Please refer to Table 9.1 of your module guide relating to the summary of the market structure, as a guide to answering this question.

A decorative graphic consisting of several curved, gray, ribbon-like bands. On the left side, there are three larger bands that curve upwards and to the right. On the right side, there are three smaller bands that curve upwards and to the left. The bands are arranged in a way that they appear to be part of a larger, abstract design.

**ECONOMICS 1B**

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**STUDY UNIT 1: INTRODUCTION TO MACROECONOMICS**

This study unit is a revision of what you learnt in economics 1A regarding the differentiation between micro and macro economics. Refer to study unit 3 of the economics 1A section of this workbook.

**STUDY UNIT 2: MEASURING THE PERFORMANCE OF THE ECONOMY**

**Multiple Choice Questions**

1. Which of the following does not represent a key macroeconomic variable?
  - a. The unemployment rate
  - b. The inflation rate
  - c. Gross Domestic Product (GDP)
  - d. Income distribution
  - e. The population growth rate
  
2. Net Domestic Product is equal to Gross Domestic Product net of
  - a. inflation.
  - b. indirect taxes.
  - c. subsidies.
  - d. net factor payments.
  - e. depreciation/consumption of fixed capital.
  
3. For a given year, Statistics South Africa found that nominal GDP calculated at market prices was different from nominal GDP calculated by the income method. Which of the following items would account for the difference?
  - a. Depreciation on capital equipment
  - b. Inflation
  - c. Interest on loans
  - d. Indirect taxes and subsidies
  - e. Net incomes from abroad
  
4. GDP at \_\_\_\_\_ prices will be greater than GDP at \_\_\_\_\_ prices because of \_\_\_\_\_.
  - a. constant; current; inflation
  - b. current; constant; inflation
  - c. constant; current; depreciation
  - d. current; constant; depreciation
  - e. current; constant; deflation

5. Since the R100 note was first introduced in South Africa, its value has
  - a. decreased in nominal terms and increased in real terms.
  - b. decreased in nominal terms and decreased in real terms.
  - c. increased in nominal terms and decreased in real terms.
  - d. increased in nominal terms and increased in real terms.
  - e. decreased in real terms, although its nominal value has remained unchanged.
  
6. To obtain GDP at market prices from Gross Domestic Expenditure, we must
  - a. subtract spending on exports and add spending on imports.
  - b. subtract spending on imports and add spending on exports.
  - c. subtract spending on intermediate goods and add spending on exports.
  - d. subtract spending on exports and add spending on intermediate goods.
  - e. subtract spending on net exports.

The table below shows a section of the national accounts for a small country in 2010. Answer Questions 7 and 8 using the information provided in the table.

Consumption expenditure	10 500
Government expenditure	3 000
Depreciation	500
Exports	1 200
Imports	1 000
Gross Capital Formation (Investment)	2 200

7. The value of Gross Domestic Expenditure is
  - a. 15 900.
  - b. 15 200.
  - c. 15 400.
  - d. 18 400.
  - e. 15 700.
  
8. The value of Net Domestic Product is
  - a. 15 900.
  - b. 15 700.
  - c. 15 200.
  - d. 15 400.
  - e. 18 400.

9. The inflation rate is measured by
  - a. the ratio of current year CPI to base year CPI.
  - b. the percentage change in the CPI from one year to the next.
  - c. the percentage change in GDP from one year to the next.
  - d. the ratio of current year CPI to the next year's CPI.
  - e. the ratio of current year PPI to the next year's PPI.
  
10. The current account of the balance of payments records
  - a. all sales and purchases of goods and services as well as income flows to and from the rest of the world.
  - b. the value of exports, but not imports.
  - c. the change in the country's gold and foreign exchange reserves.
  - d. all purely financial flows in and out of the country.
  - e. all of the above.

**DISCUSSION QUESTIONS**

1. Define gross domestic product and explain the meaning of the various elements of the definition
2. Explain the three methods that can be used to estimate GDP.
3. Explain the difference between nominal GDP and real GDP.

**Answers to Study Unit 2**

**Multiple Choice Questions**

1. e

There are five key macroeconomic objectives: full employment, price stability, economic growth, an equitable distribution of income and balance of payments stability. The population growth rate may affect macroeconomic outcomes (for example, if the population is growing at a faster rate than employment is growing) but influencing the population growth rate is not a key macroeconomic objective. Therefore the population growth rate is not a key macroeconomic variable.

2. e

GDP represents Gross Domestic Product, where “gross” means that no provision is made in the valuing of total product for capital equipment that is “used up” in the production process. Net Domestic Product is therefore Gross Domestic Product net of consumption of fixed capital (depreciation of capital equipment).

3. d

Prices may be greater than the factor costs of producing a good if indirect taxes are included in the amount paid. Prices may be lower than factor costs if producers receive subsidies.

4. b

GDP at current prices (nominal GDP) will be greater than GDP at constant prices (real GDP) because of inflation.

5. e

The nominal value of a R100 note has not changed since the note was first introduced in South Africa: the rand value of a R100 note remains one hundred rands. However, the real value has decreased. As a result of inflation, R100 today buys less than R100 bought in the past.

6. b  
GDE represents the value of spending within a country. It therefore includes spending on imports and excludes spending on exports (for this represents spending by the rest of the world). The GDP represents the value of all goods and services produced in a country. Imports are produced in other countries, and therefore must be excluded from the calculation of GDP; exports are produced in the country, and therefore must be included in the calculation of GDP.
7. e  
Gross Domestic Expenditure indicates the total value of spending on goods and services within the borders of the country (including spending on imports and excluding spending in other countries on exports). The value of Gross Domestic Expenditure = consumption expenditure + government expenditure + gross capital formation (investment expenditure) = R10 500 + R3 000 + R2 200 = R15 700. Note that already included in these expenditure categories is spending on imports, which is why import expenditure is not added to the calculation.
8. d  
Gross Domestic Product represents the value of all final goods and services produced in a country. To obtain GDP from GDE, we need to subtract spending on imports (which are produced abroad) and include spending on exports (which are produced domestically). GDP therefore equals R15 700 – R1 000 + R1 200 = R15 900. Net Domestic Product is GDP net of consumption of fixed capital (depreciation), and therefore = R15 900 – R500 = R15 400.
5. b  
The inflation rate between two years is calculated as:  
$$[(\text{CPI in year 2} - \text{CPI in year 1}) / \text{CPI in year 1}] \times 100.$$
6. a  
The current account records the net value of all sales to the rest of the world (exports) and all purchases from the rest of the world (imports), as well as flows of services and income

**Discussion Questions**

1. The gross domestic product is the total value of all final goods and services produced within the boundaries of a country in a particular period ( usually one year). For the elements refer to page 57 and 58 of the prescribed textbook.
2. The production method, income method and expenditure method found on pages 58- 59 of the prescribed textbook.
3. Nominal GDP refers to the face value or monetary value of domestic product (GDP at current prices), whilst real GDP means the actual gross domestic product (GDP at constant prices). Refer to page 63 of the prescribed textbook for an example.

**STUDY UNIT 3**

**Multiple Choice Questions**

1. Money overcomes the problem of a double coincidence of wants inherent in the barter system through its function as a
  - a. medium of exchange.
  - b. unit of account.
  - c. standard of deferred payment.
  - d. store of value.
  - e. financial intermediary.
  
2. If banks lend their excess reserves, the immediate effect will be that
  - a. the money supply will remain unchanged.
  - b. interest rates will rise.
  - c. money will be created.
  - d. the price level will fall.
  - e. money demand will fall.
  
3. If the cash reserve requirement of the banking system is 20% and banks hold no excess reserves, then the value of the credit multiplier will be
  - a. 0.
  - b. 0,2.
  - c. 5.
  - d. less than 5.
  - e. greater than 5.
  
4. The \_\_\_\_\_ demand for money arises out of the need to hold money as a medium of exchange. This demand for money is a function of \_\_\_\_\_.
  - a. precautionary; interest rates
  - b. transactions; national income
  - c. speculative; interest rates
  - d. precautionary; national income
  - e. transactions; interest rates

5. If the central bank sells government securities in the open market, the supply curve of money will shift to the
  - a. left, and the interest rate will rise.
  - b. left, and the interest rate will fall.
  - c. right, and the interest rate will rise.
  - d. right, and the interest rate will fall.
  - e. right, and the interest rate will remain unchanged.
  
6. An increase in the interest rate
  - a. will shift the money demand curve downwards.
  - b. implies a lower opportunity cost of holding money balances.
  - c. will cause the price of bonds to fall.
  - d. could be the result of an open market purchase of securities.
  - e. will increase the purchasing power of money.
  
7. A decrease in the rate of interest
  - a. lowers the opportunity cost of money and leads to an increase in the quantity of money demanded.
  - b. raises the opportunity cost of money and leads to an increase in the quantity of money demanded.
  - c. lowers the opportunity cost of money and leads to a decrease in the quantity of money demanded.
  - d. raises the opportunity cost of money and leads to a decrease in the quantity of money demanded.
  - e. does not affect the quantity of money demanded.
  
8. Money market equilibrium occurs
  - a. when interest rates are fixed.
  - b. when the level of real GDP is constant.
  - c. when the quantity of money demanded equals the quantity of money supplied.
  - d. when contractionary monetary policy is used.
  - e. when lending is discouraged.
  
9. Which of the following would cause a decrease in the supply of money?
  - a. An increase in the rate at which the central bank lends to commercial banks
  - b. A reduction in the reserve requirement
  - c. Purchase of government securities by the central bank
  - d. A reduction in the income tax rate
  - e. None of the above

10. Which of the following is not true?
- a. Money is a unit of account.
  - b. Money is a store of value.
  - c. Money is a medium of exchange.
  - d. Money is another term for income.
  - e. Money is the most liquid asset.

**Discussion Questions**

1. Define monetary policy
2. Explain the four market oriented instruments of monetary policy in South Africa

**Answers to Study Unit 3**

**Multiple Choice Questions**

1. a

By definition.

2. c

Money is created through the lending of commercial banks. By lending excess reserves, credit is extended to other individuals in the economy, thereby increasing the availability of money.

3. c

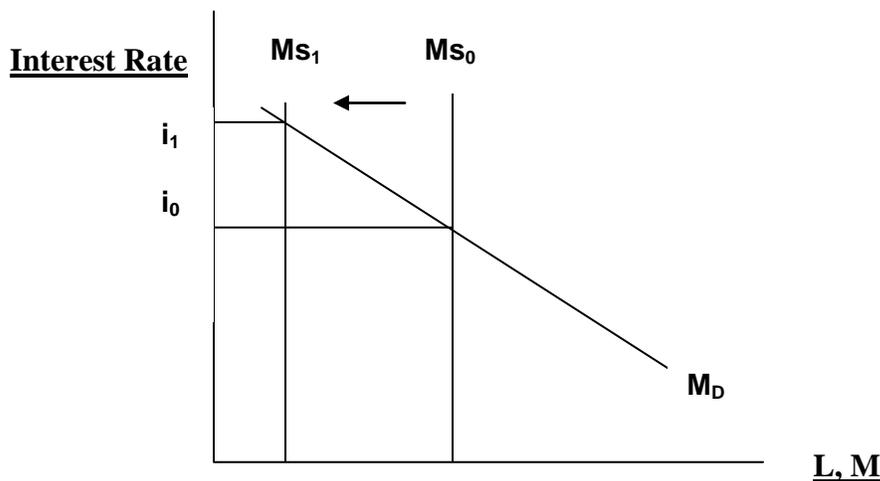
Credit (money) multiplier =  $1/b$ , where  $b$  is the cash reserve requirement.  
Therefore, the value of the money multiplier in this example is  $1/0,2 = 5$ .

4. b

The transactions demand for money, as the name implies, refers to the ability of money to function as a medium of exchange, to facilitate transactions. The greater the national income of an economy, the more transactions would be undertaken and, therefore, the quantity of money demanded for this purpose would be greater.

5. a

An open market sale of securities would cause private households to buy securities and therefore reduce their money holdings. The supply of money in the economy would, therefore, decrease.



Graphically, a decrease in the money supply would be shown as a shift of the money supply curve to the left. A new higher rate of interest is then determined where  $M_{S1} = M_D$ .

6. c

There is an inverse relationship between the price of a bond and the interest rate. An increase in the interest rate would, therefore, lead to a decrease in the price of bonds. An increase in the interest rate would cause a movement along the money demand curve, showing that an increase in the opportunity cost of holding money has reduced the quantity of money held.

7. a

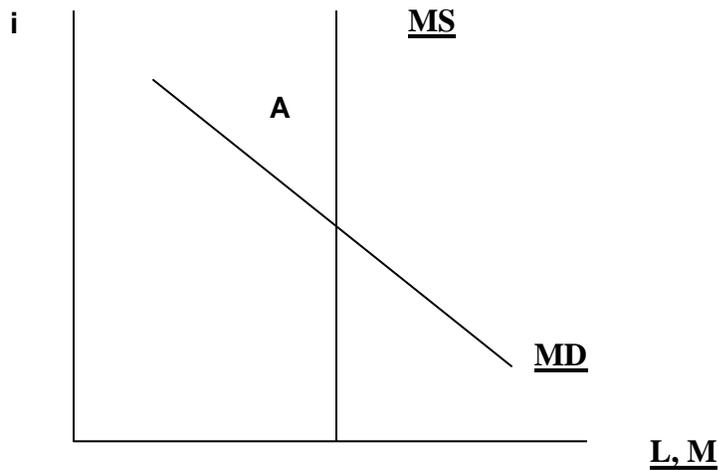
By definition. The lower the return on interest-bearing assets, the lower the opportunity cost of not investing money in interest-bearing assets, and the greater the quantity of money demanded.

8. c

Money market equilibrium occurs where the quantity of money demanded equals the quantity of money supplied.

9. a

Excess supply of money (region A in the graph below) would encourage individuals to rid themselves of unwanted money holdings through the purchase of bonds. As the demand for bonds increases, the price of bonds rises and consequently the interest rate declines. As the interest rate declines, the opportunity cost of holding money reduces, so the quantity of money demanded rises. This may be seen as a movement along the money demand curve until equilibrium is restored.



10. d

Money is, by definition, not income. Income is a flow concept whereas money is a stock concept.

Income is usually measured in terms of money (a unit of account).

**Discussion Questions**

1. Monetary Policy is defined as decisions made or actions taken by the monetary authorities to influence the quantity of money or the interest rate, with the aim of achieving the macroeconomic objectives of stable prices, full employment and economic growth.
2. Refer to page 332 of the prescribed textbook. You are required to understand each of the market oriented instruments of monetary policy.

**STUDY UNIT 4**

**THE PUBLIC SECTOR**

**Multiple Choice Questions**

1. Which of the following could most easily be described as a public good?
  - a. A pizza
  - b. A rugby test match at Newlands
  - c. A degree course offered by Mancosa
  - d. A fireworks display on the Durban beachfront
  - e. A block of flats in Johannesburg
  
2. Economic externalities
  - a. arise where costs or benefits associated with a particular economic activity affect individuals not directly involved in that activity.
  - b. arise in market economies but not in command economies.
  - c. are always harmful.
  - d. are associated only with economic activities where the exclusion principle cannot be applied.
  - e. Statements a and c are correct.
  
3. In economics, the exclusion principle applies
  - a. to situations where an act of consumption by one consumer does not prevent another consumer from consuming the same good or service.
  - b. to situations where an act of consumption by one consumer prevents another consumer from consuming that particular good or service.
  - c. mainly to situations where public goods are involved.
  - d. mainly to situations where private goods are involved.
  - e. to the circumstances associated with both b and d above.
  
4. Money financing of a government deficit
  - a. occurs when the government borrows from the central bank.
  - b. occurs when the central bank buys securities from the government.
  - c. occurs when any banking institution buys securities from the government.
  - d. is a way of reducing the supply of money.
  - e. leaves the government with an ongoing obligation to pay interest.
  
5. Which of the following is likely to lead to an increase in inflation?
  - a. An increase in taxes
  - b. Monetary and credit policies that reduce private consumption
  - c. More efficient public activities
  - d. An increase in money-financed spending

6. If government spending is higher than current government revenue, this is known as
- a deficit on the current account of the balance of payments.
  - the budget deficit.
  - the public debt.
  - money financing.
  - good fiscal management.
7. The South African income tax system is
- regressive.
  - a flat-rate tax.
  - proportional.
  - progressive.
  - indirect.
8. A tax such as VAT would generally be viewed as
- progressive, because the consumption expenditure of the rich is greater than that of the poor.
  - regressive, because low-income households spend a greater proportion of their income on goods that attract VAT.
  - proportional, because the VAT rate is constant across goods that attract VAT.
  - progressive, because most goods consumed by poor households are zero rated.
  - regressive, because the VAT burden increases as household income rises.
9. Which of the following would be classed as an expansionary fiscal policy?
- An increase in the money supply
  - A reduction in the number of goods exempted from VAT
  - An increase in government taxation
  - An increase in government expenditure
  - An increase in the VAT rate
10. If the price elasticity of supply of cell phones in a country is  $+0,8$ , whilst the price elasticity of demand is  $-1,7$ , then a specific tax placed on cell phones will be borne
- more by producers than by consumers.
  - about equally by producers and consumers.
  - more by consumers than by producers.
  - by the government .

**Discussion Questions**

1. Define fiscal policy
2. Distinguish between fiscal policy and monetary policy
3. Suppose that the government wishes to stimulate economic activity by applying expansionary monetary policy and fiscal policy.
  - 3.1 Mention a monetary policy step
  - 3.2 Mention a fiscal policy step

**Answers to Study Unit 4**

**Multiple Choice Questions**

1. d

Alternatives a, b, c and e are all examples of private goods, where the direct benefits of consumption are limited to the purchaser, ticket-holder, academic fee-payer or lessee (or their agents). In the case of a fireworks display in a public place, excludability would be difficult or impossible to enforce.

2. a

This is a straightforward definition question.

3. e

This is a fairly easy definition question. A feature of public goods is non-excludability, in terms of which consumption cannot be limited to the person who purchases the good. The exclusion principle therefore applies mainly in the case of private goods, where an act of consumption by one excludes other consumers from that same good or service.

4. b

Money financing occurs when government borrows from the central bank, for example through the sale of government securities to the Reserve Bank. The Reserve Bank does not earn interest on these bonds and usually increases the money supply (prints money) in order to buy these government securities. This may place inflationary pressure on the economy. On the other hand, debt financing involves the sale of government securities to the public. In this instance, the government is obliged to pay interest on the bonds sold to the public, and if left unchecked this form of deficit financing could exacerbate government debt.

5. d

The processes described in alternatives a and b would lower consumption demand and hence lower inflationary pressures. An increase in the efficiency of service provision by government would also be deflationary. Money financing involves government borrowing from the Reserve Bank, leading to an increase in the money supply, which is potentially inflationary.

6. b

A simple definition question. The difference between government spending and current revenue is called the budget deficit.

7. d

In South Africa, income tax is progressive. As taxable incomes increase, the proportion of taxable income that is paid in the form of taxes also increases. This is because of increasing marginal rates of taxation that have the effect of driving up the average rate of taxation as personal incomes increase.

8. b

Even though VAT is levied at a standard rate (14%-2010) on a broad range of goods, indirect taxes such as VAT are generally seen to be regressive. This is simply because low-income households spend a higher proportion of their income on consumption than do high-income households. The tax burden consequently increases as income falls.

9. d

Statement a reflects expansionary monetary, not fiscal policy. Statements b, c and e are all associated with fiscal policy changes that would contract, not expand, economic activity. Only increased government expenditure would be an example of expansionary fiscal policy.

10. a

In general, the more price elastic supply is and the more price inelastic demand is, the greater is the relative burden of a specific or excise tax borne by consumers. In this case, supply is relatively price inelastic, while demand is reasonably price elastic. This suggests that the burden of the tax will fall proportionately more on producers, since price will rise significantly less than the amount of the tax or duty.

**Discussion Questions**

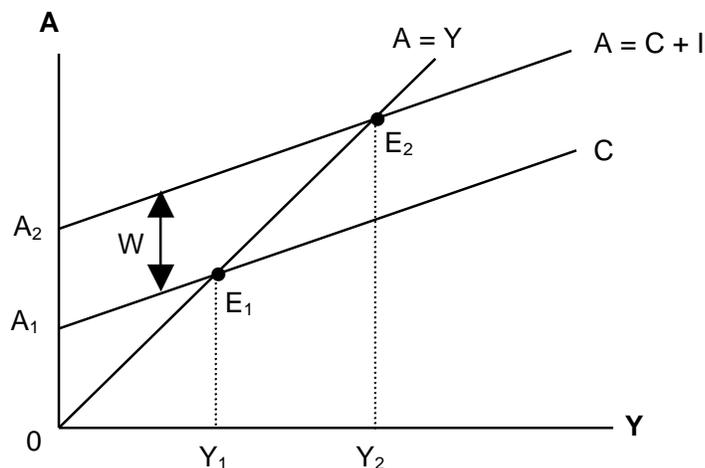
1. Fiscal Policy is defined as a policy in respect of the level and composition of government spending, taxation and borrowing.
2. Monetary policy deals with the influence of the quantity of money and interest rates, whereas fiscal policy deals with government spending, taxation and borrowing.
- 3.1 Examples of expansionary monetary policy are: aimed at increasing the money supply by purchasing government bonds from the public, reducing banks' reserve requirements and lowering key interest rates, such as the repo rate.
- 3.2 Examples of expansionary fiscal policy are: increased government spending and reduction on taxes.

**STUDY UNIT 5- MACROECONOMIC THEORIES**

**Multiple Choice Questions**

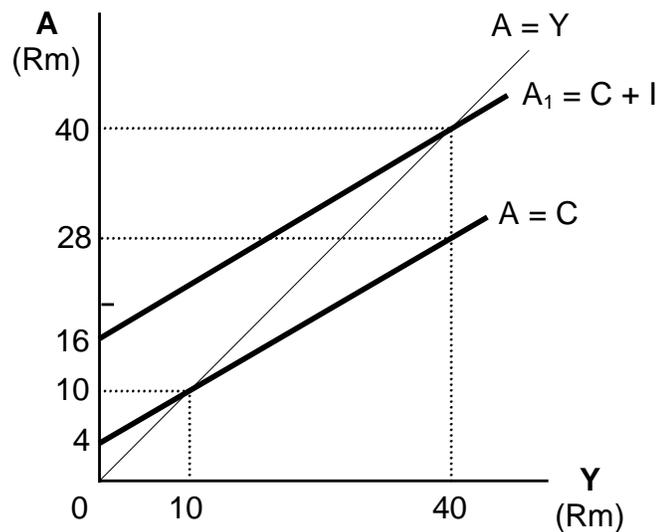
1. In the simplest (or introductory) form of the Keynesian model, which of the following decisions can we analyse?
  - a. Interest rate fluctuations
  - b. Saving of households
  - c. Investment by government
  - d. Foreign investment by firms
  - e. Wage levels in firms
  
2. Equilibrium refers to a situation where
  - a. the key quantities are equal.
  - b. all the variables balance out, i.e., their sum is zero.
  - c. all resources are fully employed.
  - d. no participant in the process desires to change his/her behaviour.
  - e. production equals income.
  
3. Which of the following is not a component of aggregate expenditure?
  - a. Consumers' expenditure
  - b. Investment
  - c. Autonomous consumption
  - d. Induced consumption
  - e. Saving

Consider the following diagram. Use this information to answer Questions 4 and 5.



4. The point labelled  $A_2$  represents
  - a. autonomous consumption.
  - b. autonomous investment.
  - c. induced consumption.
  - d. equilibrium consumption.
  - e. autonomous spending.
  
5. The gap labelled  $W$  represents
  - a. autonomous consumption.
  - b. investment spending.
  - c. induced consumption.
  - d. autonomous spending.
  
6. In the Keynesian model the multiplier is equal to
  - a. the equilibrium level of output for a given level of aggregate expenditure.
  - b. the increase in aggregate expenditure brought about by a change in investment.
  - c. the increase in the equilibrium level of income divided by the change in autonomous expenditure.
  - d. the increase in autonomous expenditure when equilibrium income increases.
  - e. the equilibrium level of consumption corresponding to a given level of aggregate spending.

Consider the diagram below. Use this information to answer Questions 7 to 9.



7. Autonomous consumption equals
- a. R0.
  - b. R4 million.
  - c. R10 million.
  - d. R16 million.
  - e. R40 million.
8. Investment equals
- a. R4 million.
  - b. R10 million.
  - c. R12 million.
  - d. R16 million.
  - e. R40 million.
9. The equilibrium level of saving equals
- a. R4 million.
  - b. R10 million.
  - c. R12 million.
  - d. R16 million.
  - e. R40 million.
10. In the Keynesian model, unemployment can be reduced by
- a. increasing the level of saving, and hence investment.
  - b. decreasing the level of saving, *ceteris paribus*.
  - c. persuading households to reduce their consumption.
  - d. raising the interest rate.
  - e. none of the above, since it is not part of the model.

**DISCUSSION QUESTIONS**

1. Consumption Spending (C) and Investment spending (I) are combined with the 45 degree line to establish the equilibrium level of production and income in the economy. Explain how the 45 degree line represents all the possible equilibrium points where aggregate spending A is equal to total production or income Y.

**Answers to Study Unit 5**

**Multiple Choice Questions**

1. b  
By assumption, the simple Keynesian model considers only consumption and saving behaviour of households and investment decisions by firms.
2. d  
This is true according to definition.
3. e  
In the simple model, aggregate expenditure is made up of Consumption + Investment. Saving is not a component of aggregate expenditure.
4. e  
Curve A represents aggregate spending, and its intercept with the spending axis equals autonomous spending by definition.
5. b  
W is the difference between the A and C curves which represents investment.
6. c  
This is true by definition
7. b  
The intercept of the consumption line ( $A_1=C$ ) on the expenditure axis represents autonomous consumption.
8. c  
Investment is represented by the difference between the  $A_1 = C + I$  line and the  $A = C$  line.
9. c  
The equilibrium level of saving is equal to investment by definition

10. b

The equilibrium level of demand is raised by raising consumption, which implies reducing the level of saving. e is a diversion, but all the other options have the effect of raising saving.

**Discussion Questions**

1. Refer to page 416 of the prescribed textbook, and figure 18.7 for an explanation.

**STUDY UNIT 6: INFLATION**

**Multiple Choice Questions**

1. Which of the following statements about inflation is true? Inflation refers to
  - a. a sudden and self-contained increase in prices.
  - b. a small increase in prices.
  - c. “too much money chasing too few goods”.
  - d. a sustained increase in the general price level.
  - e. an increase in the purchasing power of money.
  
2. If inflation is 10% and you receive a 20% increase in income, then over the year your
  - a. real and nominal income both fall.
  - b. real and nominal income both rise.
  - c. real income falls, but nominal income rises.
  - d. real income rises, but nominal income falls.
  - e. nominal income rises, but real income is unchanged.
  
3. A depreciation of the rand may have inflationary consequences in South Africa because it
  - a. increases the costs of exports.
  - b. discourages savings.
  - c. decreases the international competitiveness of South African producers.
  - d. increases the costs of imported goods.
  - e. discourages exports.
  
4. Demand Pull inflation can be illustrated by:
  - a. a rightward shift of the aggregate demand curve
  - b. a rightward shift of the aggregate supply curve
  - c. a leftward shift of the aggregate demand curve
  - d. a leftward shift of the aggregate supply curve
  
5. The following can be used to combat demand pull inflation
  - a. reduction on price levels and increase in the level of production income
  - b. increase in price levels and reduction in the level of production income
  - c. reduction in government spending and reduction in the interest rates
  - d. reduction in government spending and increase in interest rates
  - e. increase in government spending and reduction in interest rates

6. Cost push inflation can be illustrated by:
  - a. a rightward shift of the aggregate demand curve
  - b. a rightward shift of the aggregate supply curve
  - c. a leftward shift of the aggregate demand curve
  - d. a leftward shift of the aggregate supply curve
  
7. During cost push inflation there is a(n):
  - a. reduction on price levels and increase in the level of production income
  - b. increase in price levels and reduction in the level of production income
  - c. reduction in government spending and reduction in the interest rates
  - d. reduction in government spending and increase in interest rates
  - e. increase in government spending and reduction in interest rates
  
8. Cost push inflation is also known as
  - a. deflation
  - b. stagnation
  - c. stagflation
  - d. causal inflation
  
9. A simultaneous decrease in both aggregate supply and aggregated demand will
  - a. reduce the price level
  - b. reduce the production level
  - c. increase the production level
  - d. increase the price level
  - e. leave the production level unchanged
  
10. Which one of the following statements is correct?
  - a. Cost push inflation can be reduced by contractionary fiscal policy measures
  - b. Cost push inflation can be reduced by keeping the cost of production down
  - c. A decrease in aggregate demand can increase demand-pull inflation
  - d. Changes in the interest rate have no effect on demand-pull inflation

### **DISCUSSION QUESTIONS**

1. Use the aggregate demand curve (AD) and the aggregate supply curve (AS) to illustrate the difference between cost- push inflation and demand-pull inflation and mention possible causes of each type of inflation.

**Answers to Study Unit 9**

**Multiple Choice Questions**

1. d

Inflation refers to a continuous and considerable increase in prices over time. In defining inflation we are not specifying also why inflation occurs. Inflation is associated with a decrease in the purchasing power of money.

2. b

The increase in your income means an increase in nominal income. This increase is greater than the increase in inflation meaning that your real income will also rise.

3. d

If the rand depreciates, then imports paid for in South African currency will cost more and the costs of production will increase.

4. a

By definition

5. d

A reduction in government spending and an increase in the interest rate will reduce the effects of demand pull inflation

6. d

By definition

7. b

An increase in price levels and a decrease in the level of production income are two causes of inflation

8. c

By definition

9. b

By definition

10. b

By definition

**Discussion Question**

1. Your answer should look similar to the one on page 485 and 486 of the prescribed textbook., figure 21.1 and figure 21.2. Demand-pull inflation is illustrated by a rightward (upward) shift of the AD curve. Such inflation is accompanied by an increase in total production and income (up to the full employment level). Once full employment is achieved, any further increase in aggregate demand will only increase the price level.

**STUDY UNIT 7 – UNEMPLOYMENT**

**Multiple Choice Questions**

1. People leave the labour force when they
  - a. find employment.
  - b. become unemployed.
  - c. retire.
  - d. work in the informal sector.
  - e. All of the above
  
2. If a country's rate of unemployment increases then we can conclude that
  - a. the country is experiencing jobless growth.
  - b. no new jobs are being created.
  - c. GDP growth must be falling.
  - d. the proportion of people of working age who want employment and who cannot find employment is increasing.
  
3. During an economic downturn, sales fall and some workers lose their jobs. This unemployment is referred to as
  - a. seasonal unemployment.
  - b. frictional unemployment.
  - c. cyclical unemployment.
  - d. structural unemployment.
  - e. technological unemployment.
  
4. Simon resigns his job as an economist in Durban and moves to Port Elizabeth to be closer his parents. It takes Simon three months to find new employment as an economist in Port Elizabeth. During these three months, Simon was
  - a. structurally unemployed.
  - b. seasonally unemployed.
  - c. cyclically unemployed.
  - d. casually unemployed.
  - e. frictionally unemployed.

5. Which of the following might be expected to generate employment?
  - a. Economic growth that is capital intensive
  - b. Higher taxes for small businesses
  - c. An increase in the wage rate, ceteris paribus
  - d. A fall in the productivity of workers
  - e. The promotion of exports and investment
  
6. Which of the following would not be expected to generate employment?
  - a. Easier access to credit for small business
  - b. Public works programmes
  - c. An increase in imports
  - d. An increase in the labour intensity of production
  - e. A decrease in the relative price of labour
  
7. In an industry, if wages increase more than the productivity of workers increases, we would expect
  - a. an upward pressure on prices.
  - b. a decrease in unemployment.
  - c. investment in the industry to increase.
  - d. costs of production to fall.
  - e. the demand for labour to rise.
  
8. A rightward shift of the Phillips curve
  - a. indicates that the trade-off between inflation and unemployment has become less severe.
  - b. is associated with deflation.
  - c. might be the result of a decrease in the price of imported capital goods.
  - d. indicates an expansion in economic output.
  - e. indicates that every level of inflation is associated with more unemployment than before.
  
9. Stagflation refers to
  - a. stagnant prices.
  - b. hyperinflation.
  - c. the trade-off between inflation and unemployment.
  - d. rising inflation accompanied by rising unemployment.
  - e. jobless growth.

10. In South Africa, the strict rate of unemployment is different from the broad rate of unemployment because the strict rates excludes
- a. people working in the informal sector.
  - b. people who are involuntarily unemployed.
  - c. people who work in subsistence agriculture.
  - d. discouraged work-seekers who are not actively looking for work.

**Discussion Questions**

1. Explain the costs of unemployment.
2. Discuss the policies that can be used to reduce unemployment.

**Answers to Study Unit 7**

**Multiple Choice Questions**

1. c  
The labour force consists of all people of working age (ages 15 to 64) who are working or who want to work. It therefore includes people working in the informal sector, and the unemployed, but it excludes people who have retired.
2. d  
An increase in the rate of unemployment means an increase in the proportion of the working population who wanted to work but who would not find employment. No information is provided in the question about economic growth, so it is not possible to make any conclusions about the nature of this growth, whether it is increasing or decreasing, and whether or not it is associated with an increase in employment.
3. c  
Cyclical unemployment, also known as demand-deficiency unemployment, increases during economic slowdowns when the demand for goods and services falls and employers reduce their demand for labour.
4. e  
Simon encountered the normal time lag between looking for work and finding work. During this relatively short period, he was frictionally unemployed.
5. e  
An increase in the international demand for South African goods and an increase in investment in South Africa should stimulate greater production and employment. The more capital-intensive production is, however, the smaller the positive impact will be on labour demand and employment. Higher taxes, an increase in wage rates (without accompanying increases in productivity) and a fall in productivity would increase the costs of production, putting upward pressure on prices and downward pressure on demand.

6. c

If imports increase, demand for domestically produced goods will fall, as will the demand for labour to produce these goods. Small business and public works programmes tend to be very labour intensive, and a fall in the price of labour relative to other factors of production may encourage a relative increase in the demand for labour.

7. a

If wages increase by more than the productivity of workers increases, then the costs of production will increase. If firms pass these higher costs onto consumers in the form of higher prices, demand will fall and unemployment will increase.

8. e

If the Phillips curve shifts to the right, then every level of inflation is now associated with a higher level of unemployment. Factors that cause a leftward shift of the AS curve (such as an increase in input prices) produce a rightward shift of the Phillips curve.

9. d

Stagflation refers to rising inflation together with rising unemployment.

10. d

The strict definition includes all those people wanting to work who have actively taken steps to look for work (during the four weeks before they were interviewed). It therefore excludes discouraged work-seekers who have not actively been looking for work.

### **Discussion Questions**

1. Refer to pages 498 and 499 of the prescribed textbook.
2. Refer to page 500 and 501 of the prescribed textbook. Your answer should address both the supply side and demand side.

**STUDY UNIT 8: ECONOMIC GROWTH AND DEVELOPMENT**

**Multiple Choice Questions**

1. Which one of the following is not a source of economic growth?
  - a. capital widening
  - b. natural resources
  - c. labour
  - d. import substitution
  - e. tax reduction
  
2. Which of the following would not necessarily enhance economic growth in South Africa?
  - a. Technological improvements
  - b. Increased labour productivity through on-the-job training
  - c. Increased entrepreneurship talent
  - d. Higher levels of government spending that raise local interest rates
  - e. Inward industrialisation
  
3. Which one of the following statements is correct?
  - a. When measuring economic growth, real GDP at constant prices in one year should be compared to real GDP in the previous year, to obtain a percentage change in GDP
  - b. One can only talk of economic growth in the economy if the standard of living of each individual in that country improves
  - c. An increase in the quantity of the factors of production is sufficient to ensure sustained economic growth
  - d. Real GDP measures the impact of economic growth on pollution and environmental destruction
  
4. Which one of the following statements is correct?
  - a. GDP is an accurate indicator of economic welfare
  - b. “Trough” and “downswing” refer to the same element of the business cycle
  - c. The business cycle lasts for one calendar year
  - d. Economic growth is defined as the annual rate of increase in total production or income of the economy

5. An upturn phase of the business cycle refers to:
- a. rapid economic growth
  - b. a reduction in growth
  - c. a decline in output
  - d. a recovery in growth
6. During this phase, growth slows down or even ceases.
- a. Expansion
  - b. Recession
  - c. Downswing
  - d. Peaking out
  - e. Prosperity
7. Economic Development refers to:
- a: increased economic growth
  - b. increased spending
  - c. improved standard of living
  - d. improved productivity
8. Sustained economic growth requires:
- a: improvement of supply side policy only
  - b: improvement of demand side policy only
  - c: increase in GDP only
  - d: improvement of both demand and supply side policy
9. Which of the following statements is correct?
- a: Once GDP is obtained for a certain period, the figure is never adjusted
  - b: An increase in the quantity of goods or factors of production is a pre requisite for economic growth
  - c: Economic growth is a smooth process
  - d: The expansion phase of the business cycle last the same time as the recession phase

10. Economic growth can be stimulated by a:
- a: rise in domestic demand, rise in exports or reduction in imports
  - b: decrease in domestic demand, rise in exports or reduction in imports
  - c: rise in domestic demand, decrease in exports or increase in imports
  - d: decrease in domestic demand, decrease in exports or increase in imports

**Discussion Questions**

1. Define the term economic growth.
2. Explain the pros and cons of economic growth.
3. List four problems associated with GDP as a measure of total production in the economy.
4. Differentiate between the terms economic growth and economic development.

**Answers to Study Unit 8**

**Multiple Choice Questions**

1. e

The sources of economic growth are discussed in section 23.3 of the prescribed textbook. These sources are grouped into supply side factors (the quantity or quality of factors of production) and the demand side factors (domestic demand, export demand and import substitution).

2. d

The sources of economic growth are discussed in section 23.3 of the prescribed textbook. Government spending does not form part of these factors.

3. a

This is the basis of the calculation

4. d

By definition

5. d

In the upturn phase the economy begins to recover whilst in the expansion phase there is rapid economic growth

6. d

Growth slows down or even ceases during the peaking out phase

7. c

By definition

8. d

Both supply and demand side factors are required for sustained economic growth

9. b

Based on the sources of economic growth found in section 23.3 of the prescribed textbook.

10. a

Economic growth can be stimulated by a rise in domestic demand (C, I G) and a rise in exports and reduction in imports. See page 517 of the prescribed textbook.

**Discussion Questions**

1. Economic growth is defined as the annual rate of increase in total production or income in the economy.
  
2. These can be found in your study guide- elaborate on the following factors:
  - Improved technology
  - Increased spending power
  - Increased availability of goods and services
  - Increased ability to help the less fortunate
  
3. Refer to page 510 of the textbook.
  
4. Economic development is the improvement in the standard of living of less developed countries. It is further defined as a reduction or elimination of poverty, inequality and unemployment in a growing economy. Economic growth is considered only one of the components of economic development.

**STUDY UNIT 9: THE FOREIGN SECTOR**

**Multiple Choice Questions**

1. South Africa has a comparative (relative) advantage over France in the production of maize if it
  - a. produces maize with fewer material inputs than France.
  - b. can match France's output of maize and have resources left over.
  - c. can produce maize with the same resources as France but faster.
  - d. has an absolute advantage over France.
  - e. produces maize at a lower opportunity cost than France.
  
2. Australia has an absolute advantage over South Africa in wool production if, during a year, Australia
  - a. can produce more wool than South Africa.
  - b. specialises in wool production.
  - c. can produce less wool than South Africa.
  - d. can produce more wool than South Africa with a given amount of resources.
  - e. consumes more wool than South Africa on average.
  
3. If two countries have differing opportunity costs of production for two goods, then
  - a. each country should specialise in the good for which it has a higher opportunity cost of production.
  - b. only the country with an absolute advantage in the production of both goods stands to gain from trade.
  - c. each country should purchase inputs from the other country in order to gain an absolute advantage.
  - d. each country should specialise in the production of the good for which it has a relative advantage.
  - e. each country should import all goods instead of producing them domestically.
  
4. Which of the following summarises transactions involving a country's international exchange of goods, services, current transfers and income?
  - a. Current account
  - b. Financial account
  - c. Balance of payments
  - d. Gold standard
  - e. Balance of trade

5. The foreign exchange rate is the rate at which
  - a. one country's goods trade for those of another country.
  - b. the currency of one country trades for the goods of another country.
  - c. currencies of different countries are exchanged.
  - d. one country's currency trades for silver provided by another country.
  - e. the services of one country trade for the currency of another country.
  
6. A monetary system where exchange rates are freely determined in response to the demand and supply for foreign currencies may best be described as a
  - a. fixed exchange rate system.
  - b. managed float.
  - c. floating exchange rate system.
  - d. pegged exchange rate.
  - e. purchasing power parity system.
  
7. Suppose that the euro/US dollar exchange rate changes from 1,3 euros per dollar to 1,1 euros per dollar. Then
  - a. the euro has depreciated against the dollar.
  - b. this will increase the demand for Eurozone goods by the United States.
  - c. this will lead to a decline in exports by the United States to the Eurozone.
  - d. the euro has appreciated against the dollar.
  - e. the dollar has appreciated against the euro.
  
8. The exchange rate is  $\$0,50 = R5,00$ . If a car sells for \$16 000, then its cost in rands would be
  - a. R80 000.
  - b. R16 000.
  - c. R12 800.
  - d. R160 000.
  - e. R64 000.
  
9. A tariff is
  - a. a tax on exported goods.
  - b. a source of revenue to the exporting nation.
  - c. a tax on imported goods.
  - d. a tax on foreign property.
  - e. a form of quota.

10. Tariffs benefit domestic producers by
- decreasing the wage rate for labour in the domestic industry.
  - reducing the prices of imported goods.
  - increasing sales of domestic goods.
  - increasing government revenue.
  - increasing domestic consumers' real income.

**Discussion Questions**

- Use a diagram to explain the impact of the imposition of a specific import tariff on domestic production and imports. Clearly indicate the position
  - before international trade
  - after international trade without a tariff
  - after international trade but without a trade tariff
  - after the imposition of the tariff.
- Use a diagram to explain what will happen to the exchange rate between the rand and the US Dollar if South African exports to the United States increase, ceteris parabus.
- Explain with the aid of a diagram, what happens to the exchange rate between the rand and the dollar when the demand for dollars increases.

**Answers to Study Unit 9**

**Multiple Choice Questions**

1. e  
South Africa has relative advantage in the production of a good if it can produce that good with a lower opportunity cost.
2. d  
Answer d provides the definition of absolute advantage in the production of a commodity.
3. d  
Provided that two countries have differing opportunity costs of production, they can each gain from trade. In order to do so, each country should specialise in the good in which it has a relative advantage (i.e. in which it has a lower opportunity cost of production).
4. a  
This is a definition question. These items are recorded on the current account of the balance of payments.
5. c  
This is a straightforward question that simply requires a definition of an exchange rate.
6. c  
This is a definition question.
7. d  
This means that the euro must have appreciated against the dollar as previously a Eurozone resident would have to pay 1,3 euros for \$1, but now a dollar only costs 1,1 euros. Expressed alternatively, an American could previously get more euros for one dollar (1,3), but now only gets 1,1 euros per dollar.
8. d  
If something costs \$16 000, then to work out its cost in rands you use the information that \$0,50 = R5,00 (or equivalently that \$1 = R10,00) to perform the calculation. If the car costs \$16 000 you will multiply this by 10 to get the price in rands.

9. c

This is a straightforward definition question.

10. c

Tariffs increase the price of foreign imported goods (they are a tax on these imported items). This obviously results in domestic goods being more price competitive and so helps to boost sales of domestically produced goods.

### **Discussion Questions**

1. You should produce a diagram similar to Figure 17-1 and an accompanying explanation, similar to the one included in the figure. The important requirement is to provide a systematic analysis, differentiating clearly between the four positions mentioned in the question.
2. You should produce a diagram similar to Figure 17-4 in the prescribed textbook. Make sure that you label the axes and curves and show the equilibrium exchange rate. An increase in SA exports to the USA will result in an increase in the supply of dollars. This is illustrated by a rightward shift of the supply curve in the diagram. Obtain a new equilibrium exchange rate will be at a lower dollar price than before. This means that the dollar has depreciated against the rand or that the rand has appreciated against the dollar. The marks will be split between the diagram and the accompanying explanation. In a question like this the important requirements are
  - a. a correct initial diagram with correct labels
  - b. the correct shifting of the appropriate curve and
  - c. the correct conclusions drawn from the analysis.

Make sure that you use the correct diagrams to obtain all the results summarized in table 17-4 of the prescribed textbook.

3. This question is similar to the previous one but a little easier, since you are informed that the demand for dollars increases. This increase is illustrated by a rightward shift of the demand curve. The equilibrium price of dollar increases, indicating an appreciation of the dollar against the rand (or a depreciation of the rand against the dollar).