CPA

Certified Public Accountant Examination

Stage: Foundation 2.2

Subject Title: Economics & the Business Environment

Examination Format Revision Pack

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INSTITUTE OF CERTIFIED PUBLIC ACCOUNTANTS OF RWANDA

Driving Sustainable Performance

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F.2.2 ECONOMICS & THE BUSINESS ENVIRONMENT

FOUNDATION 2

EXAMINATION FORMAT QUESTIONS & SOLUTIONS

NOTES

You are required to answer Question 1. You are also required to answer any **three** out of Questions 2 to 5. (If you provide answers to all of Questions 2 to 5, you must draw a clearly distinguishable line through the answer not to be marked. Otherwise, only the first three answers to hand for Questions 2 to 5 will be marked.)

TIME ALLOWED:
3 hours, plus 10 minutes to read the paper

INSTRUCTIONS:
During the reading time you may write notes on the examination paper but you may not commence writing in your answer book.

Marks for each question are shown. The pass mark required is 50% in total over the whole paper.

Start your answer to each question on a new page.

You are reminded that candidates are expected to pay particular attention to their communication skills and care must be taken regarding the format and literacy of the solutions. The marking system will take into account the content of your answers and the extent to which answers are supported with relevant legislation, case law or examples, where appropriate.

List on the cover of each answer booklet, in the space provided, the number of each question(s) attempted.

1. Write a note on **four** of the following:

(i) Factors that influence Price Elasticity of Demand
(ii) Price Discrimination
(iii) Cost Push Inflation
(iv) The Multiplier Effect
(v) Balance of Payments

(4 x10 marks each)
(Total 40 marks)

2.

(a) The Economic Resources (or factors of production) are often considered to be the ingredients needed to produce goods and services in an economy. Explain clearly, each of the main factors of production available to an economy.

(8 marks)

(b) Explain the importance of Opportunity Cost and give an example.

(4 marks)

(c) A Command/Centrally Planned Economy is often given as an example of an economic system. Explain what a Command Economy is and identify the main advantages and disadvantages.

(8 marks)
(Total 20 marks)

3.

(a) Write an explanatory note on "Entrepreneurship" as a factor of production.

(10 marks)

(b) Explain the type of problems that may arise when the managers of the day-to-day Operations of an economic enterprise are not the owners (i.e. The Principal/Agent problem). (You may assume that the owners wish to maximise their profit/return).

(10 marks)
(Total 20 marks)

4.

(a) What is meant by "horizontal growth" in relation to the strategy (or development) of a firm?

(4 marks)

(b) Explain the (likely or expected) benefits to a firm from horizontal growth.

(8 marks)

(c) "In oligopolistic markets, firms recognise their interdependence". Explain this statement and indicate how such recognition might influence the behaviour of such firms.

(8 marks)
(Total 20 marks)

5.

(a) What is meant by a “budget deficit” in terms of the national budget?

(5 marks)

(b) Discuss the likely effects on the objectives of National Economic Policy if the government were to introduce a budget deficit.

(15 marks)

(Total 20 marks)

END OF PAPER

SUGGESTED SOLUTIONS

SOLUTION 1

Write a note on *four* of the following:

(i) Factors that influence Price Elasticity of Demand.

Price elasticity of demand refers to the sensitivity of demand for a good in response to a change in its own price.

The factors which affect price elasticity include the following:

- The availability of close substitutes at competitive prices is the greatest single influence on price elasticity of demand. Goods are purchased because they provide utility, if there are other goods available at comparable prices which provide more or less the same utility consumers will switch to buying these substitute goods if the price of the good in question is increased more than the price of substitute goods. Similarly if the price of a good is reduced relative to the price of substitute goods the consuming public will switch to buying the good which has become relatively cheaper. The closer the degree of substitutability the more will consumers tend to switch their purchasing behaviour in response to a change in relative prices and consequently the greater will be price elasticity.
- If the good in question is one of two goods which are in joint demand then this complementarity affects price elasticity of demand for the good. Reductions in the price of complementary goods will increase the demand for the good in question e.g. a reduction in the prices of motorcars will increase the demand for petrol. If the good in question is the cheaper of two goods which are in joint demand, then the demand for it is likely to be be relatively inelastic in response to changes in its own price.
- The proportion of income which is spent on the commodity also affects it elasticity. In general the greater the proportion of a person's income which is spent on a good the greater will be that person's price elasticity of demand for the good. The reason for this is that the greater the proportion of your income which you spend on the goods the more significant to you is a change in its price.

- The more durable the commodity the more elastic is the demand for it likely to be in response to change in its own price. This is because it is easier to postpone the purchase of such goods by extending the life of the existing model. Examples of such goods are refrigerators, bicycles, lawnmowers.
- The expectations of consumers as to future price changes will affect elasticity. No matter what is happening in respect of current prices if consumer expect prices to be lower in the future they will refrain from buying in the present conversely they will bring forward their purchasing if they expect prices to be even higher in the future.

(10 marks)

(ii) Price Discrimination

The notion of charging different consumers different prices for the same article.

For a firm to employ price discrimination they must:

- Have some degree of monopoly power so as to control supply.
- Have a downward sloping demand curve, and the ability to make rather than take price.
- Demand elasticities that differ in at least two markets.
- Have the ability to segregate its sales to each group of customers.

There are three major types of price discrimination:

First Degree Price Discrimination:
This occurs where suppliers seek to sell each unit for the maximum obtainable price ie. suppliers seek to charge each individual customer a price equal to his marginal utility (the maximum price a customer will pay).

Second Degree Price Discrimination:
This occurs when a customer pays a certain price for some units and a different price for additional units of the good. It therefore involves discounts typically justified on the ground of any large-scale economies achieved.

Third Degree Price Discrimination:

This occurs when the same product is sold to different customers at different prices, in two or more independent markets i.e. where two or more separate markets can be identified and segregated. It is the most common type of price discrimination e.g. peak and off-peak commuter travel.

(10 marks)

(iii) **Cost Push Inflation**

Cost Push Inflation arises when the increase in selling prices results from increase in the price of factors of production for reasons other than excess demand.

(2 marks)

It can be divided into two categories internal and external. Internal cost-push can be described as ‘wage-push’. If increased wages are not accompanied by a similar increase in productivity, costs in production will rise.

This may be illustrated through an example of wages. If workers are granted a wage increase, costs of production are increased and prices are likely to increase – not only because costs have increased but also because sellers are aware that workers have Increased purchasing power which enables them to pay the increased prices. If prices are increased, the real income of workers is reduced and they seek to have their real income restored by further wage increases and the cycle commences again.

(4 marks)

External Cost-Push or Imported inflation.

This occurs when the cost of essential imports rise regardless of whether or not they are in short supply. An example of this is the rise in oil prices.

(4 marks)

(Total 10 marks)

(iv) The Multiplier Effect

The Multiplier is the ratio of the total increase in national income to the initial increase.

$$\text{Multiplier} = \frac{\text{Total Increase in National Income}}{\text{Initial Increase in National Income}}$$

It is important because it means that an increase in one component of aggregate demand will increase national income by more than the initial increase.

Factors that effect the multiplier are the MPS (Marginal Propensity to Save) and the MPC (Marginal Propensity to Consume).

$$\text{Simple Multiplier} = \frac{1}{MPS} = \frac{1}{1 - MPC}$$

And, Marginal Propensity to tax (MPT) and the Marginal Propensity to Import (MPM) as in the Open Economy

$$\text{Multiplier} = \frac{1}{MPS + MPT + MPM}$$

Demonstrating the effect is smaller the bigger are the withdrawals from the circular flow. **(10 marks)**

(v) Balance of payments

A country's Balance of Payments which is a record of that country's economic transactions with the rest of the world is divided into two principal sections namely the current account and the capital account. The current account relates to transactions relating to the purchase or sale of goods and services so that the current account section is essentially a record of income, as distinct from capital, transactions. That section of the current account which records the import and export of merchandise (goods) is known as the Balance of Trade. The term invisible exports is often applied to the export of services since nothing of a tangible nature leaves the country in return for the money which is received e.g. foreigners spending their holidays in Rwanda; similarly the term invisible imports is applied to the purchase by Rwandan residents of foreign services. It is extremely unlikely that the value of goods and services imported would be exactly equal to the value of goods and services exported so that there will be a surplus if the value of goods and services imported is less than the value of goods and services exported and a deficit if the opposite applies; in recent years there has tended to be a surplus on the current account. The Balance of Payments is completed when the capital account section is associated with the current account section. The capital account section is an account of a country's inflow and outflow of capital and transactions of this nature cause a consequent net increase or decrease in the external reserves of the country. Since the Balance of Payments is a financial statement it is a book-keeping exercise and consequently the totals of the current and capital accounts must balance in the sense that total credits must equal total debits. References to surplus or deficits refer to the current account section of the Balance of Payments or to a change in the level of foreign reserves that we hold.

(10 marks)

SOLUTION 2

(a) The Economic Resources (or factors of production) are often considered to be the ingredients needed to produce goods and services in an economy. Explain clearly, each of the main factors of production available to an economy.

(ii) Land; Anything provided by nature that is used to produce goods and services e.g. oil, gas, timber etc.

(iii) Labour; The human effort that goes into the production of goods and services e.g. skilled and unskilled workers, researchers etc.

(iv) Capital; Anything man-made that is used to produce goods and services e.g. computers, tractors etc.

(v) Enterprise; A human resource such as intelligence, that organizes the other factors, example of a person who is enterprising i.e. 'entrepreneur' is Bill Gates.

(8 marks)

(b) Explain what is meant by Opportunity Cost giving an example**.**

Opportunity Cost is can be defined as the best alternative foregone. It involves making a choice and sacrificing one decision or purchase for another.

For example; 'The government has RWF50 million to spend, it can use this money to improve the infrastructure of hospitals or use it to increase the security forces i.e. Police.

(4 marks)

(c) A Command/Centrally Planned Economy is often given as an example of an economic system. Explain what a Command Economy is and identify the main advantages and disadvantages.

All economic decisions are made by a central authority, it plans output and production of each firm and industry; there are no entrepreneurs. This type of economic system plans the distribution of all output.

(2 marks)

Advantages

- Some services are better managed by the Government e.g. defence, justice.
- Lowest levels of unemployment possible.
- Wealth can be more evenly distributed based on the needs of all people.
- Weaker sections of the community may enjoy a higher standard of living under the system

(3 marks)

Disadvantages

- Inefficiency can occur – as there is no competition.
- There is a lack of individual freedom in making economic decisions.
- Entrepreneurship and initiative are suppressed.
- Increased bureaucracy.
- Consumer preferences are neglected.

(3 marks)
(Total 20 Marks)

SOLUTION 3

(a) The **entrepreneur** is the person (or persons) who bears the risks against which a business cannot insure. Some examples of risks against which insurance policies are not available are:

- The possibility that new products may not sell at the price and in the quantity required to generate an adequate profit.
- The risk that competitive strategies by competitors will render your business unprofitable.
- The possibility that unforeseen developments may affect the profitability of the firm.
- Industrial Disputes
- The entry of new firms into the industry.
- The emergence of international trade agreements which increase competition.

It is sometimes thought that directors, top management or decision makers in a firm are the entrepreneurs though this is not necessarily so. If such people are employed by the firm and as a result receive a salary for their efforts then they are merely a form of the factor of production labour.

The return to the entrepreneur is known as profit and this form of return is different to the return to other factors of production in that it is a residual rather than a specified amount, in addition to which is likely to be subject to considerable variation from one period to another. The return to the entrepreneur is unique also in that it may be a negative return in circumstances where the firm suffers a loss; such an outcome is not conceivable in respect of any of the other categories of factors of production.

(10 marks)

(b) A Principal is a person who hires an agent to undertake work on their behalf. It is possible that the interests of the principal and the agent may differ, since while owners seek to maximise their return from the enterprise, managers may pursue an agenda that does not exactly reflect the same order of priorities. One of the first problems that is manifest is in relation to the time period over which results should be assessed managers tend to be judged (and incentive bonuses based) on performance during an annual or short term period and this may not necessarily be consistent with the maximisation of returns in the longer term – there are many examples of this in professional sport and in recent developments in high profile business enterprises.
Another problem arises in determining what precisely is an optimum attainable or maximising level in relation to any specified objective. A consequent of this dilemma is the emergence of a form of satisficing behaviour whereby managers seek to ensure that the returns to the owners are sufficient to leave them (the owners) satisfied with the stewardship of the manager. Such satisficing behaviour may result in the setting of sub-optimal operational targets against which the performance of the enterprise (and thus the manager) will be judged.

Also it is possible that mangers may pursue objectives other than profit maximisation. Managers may pursue objectives such as the maximising the level of sales or the rate of growth of the enterprise even though it is possible that the attainment of these objectives may not be consistent with profit maximisation. However, since the achievement of objectives of this nature reflect well on the manager and are often the criteria, on which the performance, salary and career prospects of managers are based, these targets may be prioritised by the manager.

It is possible that managers may have a proclivity towards expense preference behaviour. The consumption of perquisites, e.g. expensive cars, lavish entertainments expenses, may be important to a manager even though they add little to the profitability of the enterprise or the benefits of owners/ shareholders.
In an effort to minimise Principal/Agent problems stock options and profit sharing schemes have been introduced to align more closely the interest of owners and managers.

(10 marks)
(Total 20 marks)

SOLUTION 4

(a) Horizontal growth is the term applied to expansion at a singular or particular point on the value chain. It can occur through organic growth, merger or acquisition.

(4 marks)

(b) Examples of benefits attributed to horizontal growth include:

- Organic horizontal growth may be engaged in as a firm seeks to exploit revenue opportunities. As more consumers move into a market the firm could exploit increased revenue opportunities by investing in more productive assets.
- When a merger or acquisition occurs there is, by definition, a reduction in the number of competitors in the market. Consequently there is a reduction in the availability of substitute goods so that there is a reduction in price elasticity of demand for the firm's output.
- Price wars are less likely to occur.
- An increase in co-operative behaviour from firms is likely and cartel behaviour among firms may develop.
- If the nature of the business is characterised by a steep learning curve significant cost savings may be achieved through horizontal growth.

(8 marks)

(c) As indicated by the name oligopolistic markets are markets in which there are few sellers. The significance of the paucity of sellers is that firms can identify their competitors and thus conceivably take into account the possible reaction of rivals to any competitive initiatives that the firm may take.

Oligopolistic markets tend to be characterised more by non-price competition rather than significant price flexibility and the kinked demand curve model is one example of a possible scenario. Recognition of market territories and market shares together with various forms of collusive behaviour and/or agreements such as cartels are also associated with oligopolistic markets.

(8 marks)

(Total 20 marks)

SOLUTION 5

(a) A budget deficit refers to a situation in which the governments expenditure is greater than its revenue; the shortfall on the revenue side being made up through government borrowing. The following points are relevant when evaluating a considering a government decision to introduce a budget deficit:

- The use which is made of the borrowed funds. It may be self-liquidating form of borrowing in the sense that the borrowed funds may be used in a manner that improves the productive capacity of the economy e.g. improving the infrastructure of the economy.
- It may be part of a countercyclical macroeconomic policy so that the government has budget deficits when the economy is working below capacity and runs surpluses in buoyant times to pay back the borrowing.
- The cost to the State of undertaking necessary public works will be lower when the economy is somewhat flat.
- In contrast to the foregoing points it would be a bad strategy in run a budget surplus when the economy is already buoyant.
- If the National Debt is at a very low level then the servicing of the borrowing may not impose too heavy a burden on the economy.

(5 marks)

(b) Possible effects of a budget deficit on other objectives of national economic policy.

- As already mentioned a budget deficit adds to the National Debt .
- A deficit budget is expansionary and thus it stimulates economic growth.
- It results in increased levels of employment.
- It may cause some problems on our Balance of Payments in the sense that increased purchasing power within the economy will stimulate demand for imports.

- The effect on inflation depends on the stage of the cycle that is being experienced. If a deficit budget was introduced when the economy was inherently buoyant then inflationary pressures would be intensified.
- It may assist in facilitating a more equitable distribution of National Income.
- Depending on the detailed use of the funds it may assist balance regional development.

(15 marks)

(Total 20 marks)

END OF SOLUTIONS

F2.2 ECONOMICS AND THE BUSINESS ENVIRONMENT

FOUNDATION 2

EXAMINATION FORMAT REVISION QUESTIONS & SOLUTIONS

NOTES

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List on the cover of each answer booklet, in the space provided, the number of each question(s) attempted.

Question 1 is allocated 40 marks and each of the other questions are allocated 20 marks.

1. Write a note on **four** of the following:

(i) The Advantages and Disadvantages of a Minimum Wage.

(ii) Price Elasticity of Demand.

(iii) Fiscal Drag.

(iv) Paradox of Thrift.

(v) The Role of the Central Bank.

(4 x 10 marks each)

(Total : 40 Marks)

2.

(a) The Economic Resources (or factors of production) are often considered to be the ingredients needed to produce goods and services in an economy. Explain clearly, each of the main factors of production available to an economy.

(8 marks)

(b) Explain the importance of Opportunity Cost and give an example.

(4 marks)

(c) A Command/Centrally Planned Economy is often given as an example of an economic system. Explain what a Command Economy is and identify the main advantages and disadvantages.

(8 marks)

(Total : 20 Marks)

3.

(a) Explain with the aid of appropriate diagrams, each of the following costs:

(i) Fixed Costs

(ii) Variable Costs

(iii) Average Total Costs

(iv) Marginal Costs

(4 marks)

(b) A firm's average fixed costs of producing 6 units were RWF100 per unit.

Units of Output Average Variable Cost

Units of Output	Average Variable Cost – RWF '000
1	20
2	18
3	16
4	15
5	14
6	12
7	16
8	20

You are required to calculate the following:

(i) Fixed Costs

(ii) Average Total Cost of 4 units

(iii) Marginal Cost of the 7th unit

(iv) Total Cost of 5 units **(8 marks)**

(c) Distinguish between the Long Run and Short Run time periods for a firm operating in a perfectly competitive market.

(8 marks)

(Total : 20 Marks)

4.

(a) Write an account on the role of the International Monetary Fund (IMF) and the role of a Central Bank.

(12 marks)

(b) In your estimation, what factors would be relevant to determine an intervention by both the IMF and a central bank into an economy such as Rwanda.

(8 marks)

(Total : 20 Marks)

5.

(a) In circumstance where the Marginal Propensity to save = 0.2; Marginal Propensity to Import = 0.2 and Marginal Propensity to pay Tax = 0.1, calculate the net change in the Balance of Payments if our exports increase by RWF10 million.

(6 marks)

(b) What do you understand by ‘a deficit on our Balance of Payments’?

(5 marks)

(c) Rwanda is a small open economy which relies heavily on International trade. Discuss the importance of International trade to Rwanda?

(9 marks)

(Total : 20 Marks)

END OF PAPER

SUGGESTED SOLUTIONS

SOLUTION 1

Write a note on **four** of the following:

(i) The Advantages and Disadvantages of a Minimum Wage.

The **minimum wage** is the minimum rate a worker can legally be paid (usually per day or hour) as opposed to wages that are determined by the forces of supply and demand in a free market. Each country sets its own minimum wage laws and regulations, and many countries have no minimum wage.

Advantages and Disadvantages:

Minimum wages may have the effect of:

- Reducing low-paid work which may be unfair and exploitative.
- Reducing the dependency of the low-paid on welfare-state benefits which may in turn reduce taxes or allow increases of other government outlays.
- Stimulating economic growth by discouraging labour-intensive industries, thereby encouraging more investment in capital and training.
- Encouraging many of those who would normally take low-wage jobs to stay in (or return to) school and thus to accumulate human capital.

On the other hand, minimum wages may have the effect of:

- Limiting employment of low-wage earners, and generally increasing unemployment.
- Raising employment barriers for people with little or no work experience or formal education: if a worker's labour is not worth the minimum, he may not find employment at all.
- Curbing economic growth by increasing the cost of labour.

- Increasing the price of goods and services, since employers pass on employment costs in the form of higher prices. (Opponents of minimum wage often see a negative income tax e.g., as a way to support the lower waged jobs, with the money coming from those who pay taxes, not those who pay for the products including the unemployed).
- Decreasing incentive for some low-skilled workers to gain skills.

The effects of minimum wage laws, both positive and negative, may be increased by 'knock-on effects', with increased wages for workers already earning above the minimum wage.

(10 marks)

(ii) Elasticity of Demand.

Price elasticity of demand refers to the sensitivity of demand for a good in response to a change in its own price.

The factors which affect price elasticity include the following:

- The availability of close substitutes at competitive prices is the greatest single influence on price elasticity of demand. Goods are purchased because they provide utility, if there are other goods available at comparable prices which provide more or less the same utility consumers will switch to buying these substitute goods if the price of the good in question is increased more than the price of substitute goods. Similarly if the price of a good is reduced relative to the price of substitute goods the consuming public will switch to buying the good which has become relatively cheaper. The closer the degree of substitutability the more will consumers tend to switch their purchasing behaviour in response to a change in relative prices and consequently the greater will be price elasticity.

- If the good in question is one of two goods which are in joint demand then this complementarity affects price elasticity of demand for the good. Reductions in the price of complementary goods will increase the demand for the good in question e.g. a reduction in the price of motorcars will increase the demand for petrol. If the good in question is the cheaper of two goods which are in joint demand, then the demand for it is likely to be relatively inelastic in response to changes in its own price.

- The proportion of income which is spent on the commodity also affects it elasticity. In general the greater the proportion of a person's income which is spent on a good the greater will be that person's price elasticity of demand for the good. The reason for this is that the greater the proportion of your income which you spend on the goods the more significant to you is a change in its price.

- The more durable the commodity the more elastic is the demand for it likely to be in response to changes in its own price. This is because it is easier the postpone the purchase of such goods by extending the life of the existing model. Examples of such goods are refrigerators, bicycles, lawnmowers.

The expectations of consumers as to future price changes will affect elasticity. No matter what is happening in respect of current prices if consumers expect prices to be lower in the future they will refrain from buying in the present conversely they will bring forward their purchasing if they expect prices to be even higher in the future.

(10 marks)

(iii) Fiscal Drag.

Fiscal drag is an economics term referring to a situation where a government's net fiscal position (equal to its spending less any taxation) does not meet the net savings goals of the private economy. This can result in deflationary pressure attributed to either lack of state spending or to excess taxation.

One cause of fiscal drag is the consequence of expanding economies with progressive taxation. In general, individuals are forced into higher tax brackets as their income rises. The greater tax burden can lead to less consumer spending. For the individuals pushed into a higher tax bracket, the proportion of income as tax has increased, resulting in fiscal drag.

Fiscal drag is the tendency of revenue from taxation to rise as a share of GDP in a growing economy. Tax allowances, progressive tax rates and the threshold above which a particular rate of tax applies usually remain constant or are changed only gradually. By contrast, when the economy grows, income, spending and corporate profit rise. So the tax-take increases too, without any need for government action. This helps slow the rate of increase in demand, reducing the pace of growth, making it less likely to result in higher inflation. Thus fiscal drag is an automatic stabiliser, as it acts naturally to keep demand stable.

(10 marks)

(iv) Paradox of Thrift.

The paradox of thrift relates to the possibility of households intending to save more (or less) but actually ending up saving less (or more).

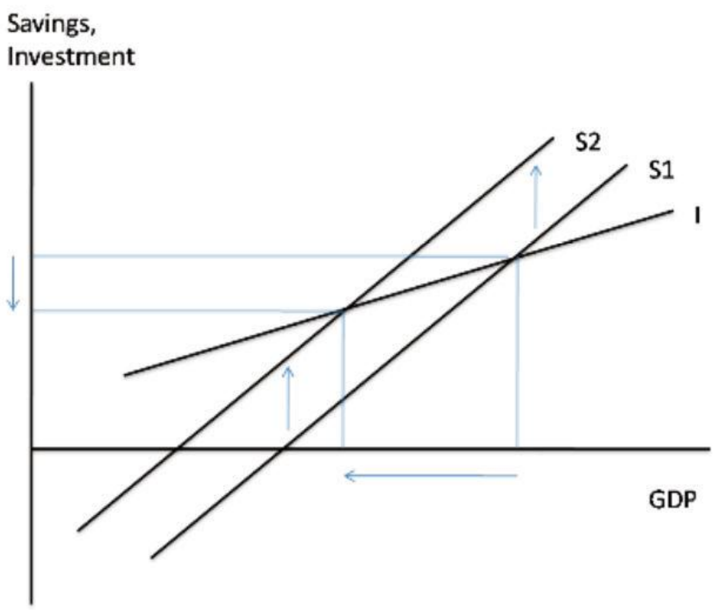
Suppose people decide to become more thrifty, that is, they decide to save more at each level of income. One might expect that this would increase the total amount of savings, but the simple Keynesian multiplier model predicts a paradox of thrift, that total savings will remain the same and income will decline.

It is an economic concept that holds that if everyone tries to save an increasingly larger portion of his or her income, they will become poorer instead of richer. This is because the economy will slow down from reduction in demand and the very same people would lose their jobs. This theory, however, applies mainly to Keynesian economics where increased savings represent a diminishing circular flow of income.

In the figure below it is assumed that the level of investment is positively related to the level of income (as indicated by the upward slope). The initial equilibrium is at point 'a' with income level 'y0' and 's0' being saved. Let's assume that Households decide to save more (or whatever reason) and therefore spend less of their incomes. This is indicated in an upward shift in the savings function from s1 to s2. Because of the increase in savings represent a fall in aggregate demand, the equilibrium level of income fall from y0 to y1 (point c represents the new equilibrium).

Although the savings ratio has increased, the overall level of savings has fallen due to the fall in the level of income. Households had intended saving an amount s1 from y0 but end up saving an amount s2 from y1 i.e. the level of

savings has fallen despite the original intention to increase spending.



(v) Role of the Central Bank.

Central Banks generally have a degree of autonomy, but ultimately they are answerable to and act on behalf of the government.

Typically, the following functions are performed by the Central Bank.

Tutor's note: The Role of the BNR is stated on their web-site and reference to BNR as opposed to "a" central bank would be useful

- Sole Issues of legal tender
- Banker to the clearing banks – the banks keep their operation l deposits at the Bank.
- Banker to the Government.
- Supervision of the financial system.
- Lender of last resort.
- Borrows money on behalf of the government.
- Instrument of government monetary policy.

(10 marks)

(Total: 40 Marks)

SOLUTION 2

(a) The Economic Resources (or factors of production) are often considered to be the ingredients needed to produce goods and services in an economy.

Explain clearly, each of the main factors of production available to an economy.

- **(i)** Land; Anything provided by nature that is used to produce goods and services e.g. oil, gas, timber etc.
- **(ii)** Labour; The human effort that goes into the production of goods and services e.g. skilled and unskilled workers, researchers etc.
- **(iii)** Capital; Anything man-made that is used to produce goods and services e.g. computers, tractors etc.
- **(iv)** Enterprise; A human resource such as intelligence, that organizes the other factors, examples of people who are enterprising i.e. ‘entrepreneurs’ are those who take risks, who start up their own businesses e.g. Bill Gates.

(8 marks)

(b) Explain what is meant by Opportunity Cost giving an example.

Opportunity Cost is can be defined as the best alternative foregone. It involves making a choice and sacrificing one decision or purchase for another.

For example; ‘The government has RWF50 billion to spend, it can use this money to improve the infrastructure of hospitals or use it to increase the security forces i.e. Police.

(4 marks)

(c) A Command/Centrally Planned Economy is often given as an example of an economic system. Explain what a Command Economy is and identify the main advantages and disadvantages.

All economic decisions are made by a central authority, it plans output and production of each firm and industry; there are no entrepreneurs. This type of economic system plans the distribution of all output.

(2 marks)

Advantages

- Some services are better managed by the Government e.g. defence, justice.
- Lowest levels of unemployment possible.
- Wealth can be more evenly distributed based on the needs of all people.
- Weaker sections of the community may enjoy a higher standard of living under the system

(3 marks)

Disadvantages

- Inefficiency can occur – as there is no competition.
- There is a lack of individual freedom in making economic decisions.
- Entrepreneurship and initiative are suppressed.
- Increased bureaucracy.
- Consumer preferences are neglected.

(3 marks)

(Total: 20 Marks)

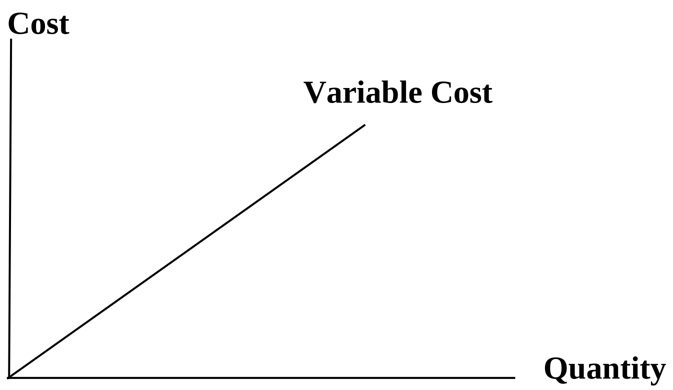
SOLUTION 3

(a) Explain with the aid of appropriate diagrams, each of the following costs.

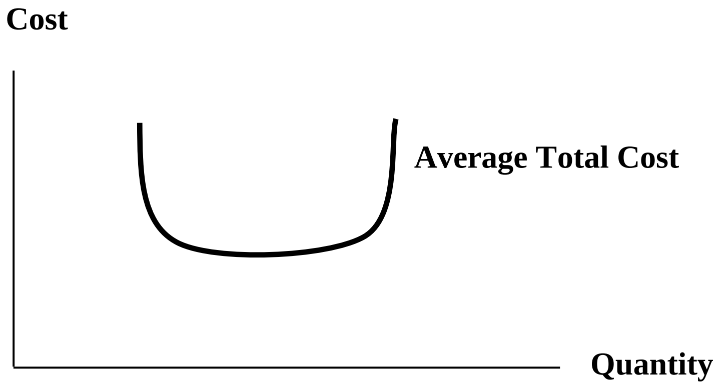
Fixed Costs
Variable Costs
Average Total Costs
Marginal Costs **(4 marks)**

Fixed Costs are costs that do not vary with output e.g. rent, loan repayments etc.

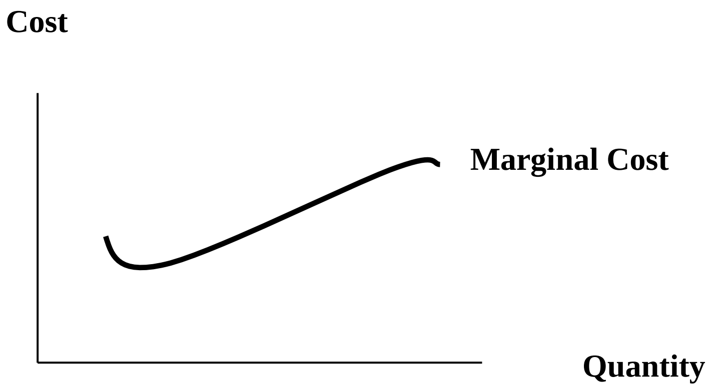
Variable Costs are costs that do vary with the level of output e.g. raw materials



Average Total Costs is made up of Average Fixed Costs and Average Variable Cost. It is the total cost per a unit being produced.



Marginal Cost is the extra cost of producing one extra unit



(4 marks)

(b) A firm's average fixed costs of producing 6 units were RWF100 per unit. Calculate

Units of Output	**Average Variable Cost – RWF '000**
1	20
2	18
3	16
4	15
5	14
6	12
7	16
8	20

Fixed Costs

Average Total Cost of 4 units

Marginal Cost of the 7th unit

Total Cost of 5 units **(8 marks)**

Units of Output	Fixed Cost	Variable Cost	Total Cost	A F C	A V C	A T C	Marginal cost
1	600	20	620		20		-
2	600	36	636		18		16
3	600	48	648		16		12
4	600	60	660	165	15		12
5	600	70	670		14		10
6	600	72	672	100	12		2
7	600	112	712		16		40
8	600	160	760		20		48

(i) A.F.C. = F.C. / Q then A.F.C. (100) x Q(6) = F.C. 600

(ii) A.F.C. = F.C. / Q then 660 / 4 = 165

(iii) Marginal Cost is total cost of current unit less the total cost of previous unit, therefore T.C. of unit 7 (712) less T.C. of unit 6 (672) = 40 M.C.

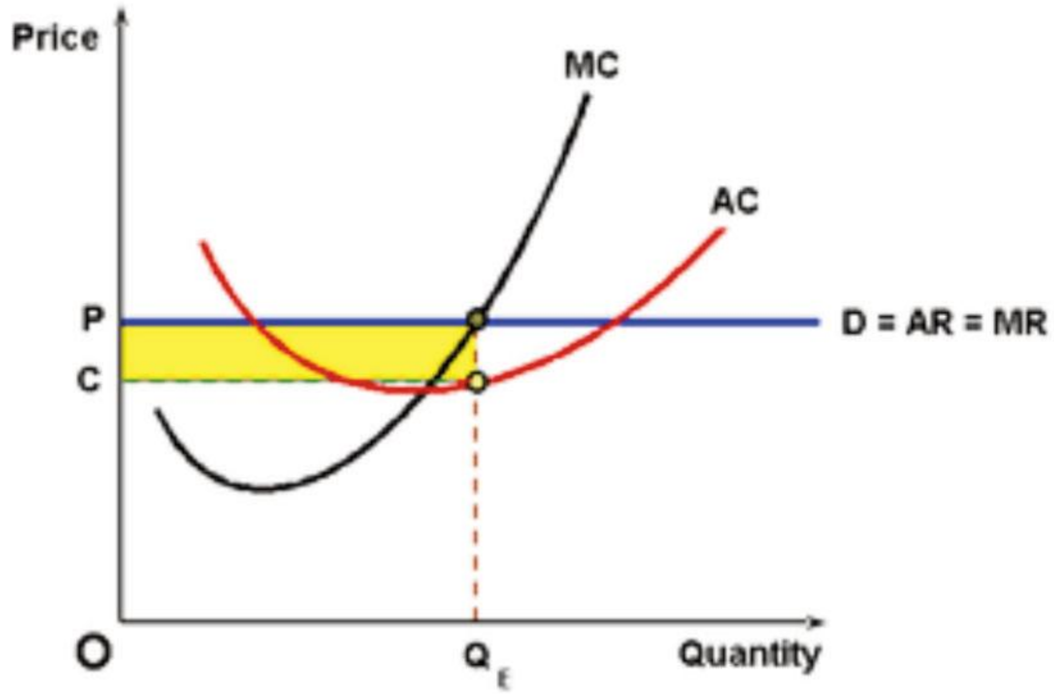
(iv) Total Cost = F.C. + V.C. therefore 600 + 70 = 670 T.C. (4 X 2 marks)

(c) Distinguish between the Long Run and Short run time periods for a firm operating in a perfectly competitive market.

Use diagrams as appropriate.

Under perfect competition, there are many buyers and sellers in the industry. The firms are price takers and cannot influence price, as such they must always compete at their maximum level of efficiency. There are no barriers to entry. Firms attempt to maximize profits. In the short run if firms are making a supernormal profit, new firms enter the market place and reduce profit, as a result of increasing supply and driving the price downwards to a position where all forms in the industry will only make a normal profit, thereby enabling firms only earn normal profit in the long run. If firms are making a loss they exit the industry. Firms are therefore typically maximizing the utilization of resources and producing at all times at the minimum cost –point.

In the short-run, it is possible for an individual firm to make a profit. This situation is shown in this diagram, as the price or average revenue, denoted by P, is above the average cost denoted by C .



However, in the long period, positive profit cannot be sustained. The arrival of new firms or expansion of existing firms (if returns to scale are constant) in the market causes the (horizontal) demand curve of each individual firm to shift downward, bringing down at the same time the price, the average revenue and marginal revenue curve. The final outcome is that, in the long run, the firm will make only normal profit (zero economic profit). Its horizontal demand curve will touch its average total cost curve at its lowest point.

(6 + 2 marks for diagram)

(Total : 20 Marks)

SOLUTION 4

(a) Write an account on the role of the International Monetary Fund (IMF) and the role of a Central Bank.

(12 marks)

The IMF encourages expansion in trade by encouraging member countries to adopt sound economic policies. It monitors economic and financial developments in member countries and gives advice to its members.

Strong advocates of the IMF see the organisation as a benevolent force, a useful and neutral enforcer of fiscal discipline when asked for help by crisis-stricken countries. Troubled economies with tattered reputations, and shunned by international money markets, have no-where else to turn for financial help and the IMF, so often dubbed the 'lender of last resort', is glad to provide a helping hand.

Trenchant critics, however, do not see the IMF as a global organisation made up of 186 member states ready to help each other in times of crises with the aid of pooled financial resources. Detractors see the organisation, dominated by powerful developed countries, as a capitalist-driven organisation dictating to troubled economies who must sign up to draconian conditions in order to receive IMF help. Critics argue the austere conditions attached to the IMF's lending policies leave troubled economies in a worse mess than before the intervention. (Stiglitz, 2002)

Whatever of the many differing views the IMF provokes, one thing is clear, no matter what the perspective: a country linked to the IMF is a clear indicator the nation is either bankrupt or on the verge of going broke.

Principle roles of the IMF are to:

- Promote exchange rate stability. The IMF promotes international monetary co-operation. It provides a forum for consultation on international monetary problems. It tries to maintain orderly exchange arrangements among countries and aims to avoid competitive devaluations.
- Orderly correction of balance of payments problems. The IMF lends to member countries with balance of payments problems to provide temporary financing and to support reform policies aimed at correcting the underlying problems.
- Operation of a multilateral system of payments. The IMF operates this system in respect of current transactions between members and aims to eliminate foreign exchange restrictions which may hamper the growth of world trade.

- Provision of technical assistance and training. Where a member needs help the IMF will provide this assistance and training. When the Soviet Union collapsed the IMF stepped in and set up treasury systems for their central banks to help the transition from centrally planned to market based economic systems.
- Lender of last Resort.

The principal roles of a central bank such as BNR are as follows:

1. To define and implement the monetary policy.
2. To conduct foreign exchange operations .
3. To promote the smooth operation of the financial market payment infrastructure.
4. Prudential supervision and financial stability.
5. To hold and manage the foreign reserves.
6. Co-operation with International bodies.
7. Collection and compilation of financial statistics
8. Advisory functions and statutory reporting

(2 x 6 marks)

(b) In your estimation, what factors would be relevant to determining the intervention by both the IMF and a Central bank in a country such as Rwanda.

General Discussion on what happened in USA, UK and Europe in 2007-2012 and why the IMF and the respective central banks acted the way they did.

(8 marks)

(Total: 20 Marks)

SOLUTION 5

(a) In circumstance where the Marginal Propensity to save = 0.2; Marginal Propensity to Import = 0.2 and Marginal Propensity to pay Tax = 0.1 Calculate the net change in the Balance of Payments if our exports increase by RWF10 million.

The multiplier is equal to 1/ mps + mpm + mpt.

In this instance this is equal to 2 which is equal to 1/ 0.2 + 0.2 + 0.1.

Thus, if there is an increase in injections into the economy through an increase of RWF10 million in exports then the increase in aggregate demand will be equal to RWF10 million X 2 which is equal to RWF20 million. Since the marginal propensity to import is 0.2 then from this increase of RWF20 million in aggregate demand imports will increase be RWF20 million X 0.2 which is equal to RWF4 million.

With an increase of RWF20 million in the level of exports and a consequent increase of RWF4 million in the level of imports the net effect will be an improvement of RWF16 million in our Balance of Payments.

(6 marks)

(b) What do you understand by 'a deficit on our Balance of Payments'?

International trade inevitably gives rise in indebtedness between people in different countries. The record of economic transactions with the rest of the world is conventionally known as the Balance of Payments. Since the Balance of Payments is a financial statement of a country's financial affairs arising from international transactions, it is a book-keeping exercise. Consequently, it must balance in the double-entry book-keeping sense that total credits must equal total debits.

When reference is made to deficits or surpluses in the Balance of Payments it is usually a reference to a deficit or surplus on the current account section of the Balance of Payments. Such imbalances of the current account section of the Balance of Payments occur when there is an imbalance between the value of exports and the value of imports. A deficit being the term to indicate the value of imports being greater and a surplus when the opposite applies. Because some inflows of capital may occur to order to finance goods being imported a more insightful analysis of the Balance of Payments may be conducted through examining changes in the level of our external reserves. In this case there is said to be a deficit on the Balance of Payments when the combined effect of current and capital transactions causes a fall in the level of our external reserves.

(5 marks)

(c) In a small open economy which relies heavily on International trade. Discuss the importance of International trade, making reference to Rwanda?

Reasons why International Trade is important:

- Greater standard of living / increased wealth. Trade increases wealth / GNP and this allows the purchase of a greater quantity of goods and services.
- Greater choice of commodities / Commodities we are unable to produce. Trade allows us benefit from a greater variety of goods and services than would be available without trade. We lack some essential raw materials for production and thus must import these.
- More competitive prices of goods and services. Trade results in greater competition on the market which should lead to more competitive prices for consumers.
- Employment / Investment opportunities. Efficient production means that employment in these industries is more secure. Employment will be created in those industries which are expanding due to the benefits of trade. A healthy trading economy generates confidence in the economy and investment is thus encouraged.
- Companies benefit from economies of large scale production. With trade, specialisation will take place. Companies will increase production and may benefit from economies of scale. These savings may be passed onto consumers in the form of lower prices and/or greater innovation.
- Allows for the sale of surplus/ excess domestic output. If a company is competitive then it has the opportunity to sell that output, which it doesn’t/can’t sell domestically, on the international market.
- More efficient use of scarce world resources. By specialising in production countries maximise their combined outputs and thus resources are allocated more efficiently, resulting in less wastage.
- Lack of domestic demand.

Discussion on emphasis placed on exports in recent months, as a method of generating income (influencing economic growth) and creating employment (reducing unemployment).

Also discuss the importance of exporting Cassiterite to China and other countries plus the need to export Coffee/Tea.

Marks allocated: (6 + 3 for Exports = 9 marks)

(Total : 20 Marks)

END OF SOLUTIONS