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Certified Tax Advisor Course

CTA

MANAGERIAL ECONOMICS & PUBLIC FINANCE (P4)

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TEST PAPER 1 CTA MAY 2018

Attempt four of the five questions

Question 1

(a) Mr. John Christopher Kizito owns Summit Bakery (SB). SB produces top quality cakes. SB's price function is P = 100,000 - 2q. The firm's total cost function is $TC = 100,000 + 0.5q^2$, where q is the quantity of cakes.

Required:

Calculate the:

(a) profit maximising output. (5 marks)

(b) value of total cost. (5 marks)

(c) unit price for a cake. (5 marks)

(d) amount of profit. (5 marks)

(b) Explain the different policy options that Mr. Kizito can consider in order to increase the profit level of SB. (5 marks)

(25 marks)

Question 2

The government of Uganda intends to explore various tax policy options in order to stabilise the economy. As an expert in managerial economics and public finance, you have been approached by the Ministry of Finance, Planning and Economic Development for advise.

Required:

- (a) Discuss the constraints that may limit tax policy options available to Uganda's economy. (10 marks)
- (b) Evaluate the factors that can be used to mitigate constraints facing Uganda's tax system. (10 marks)
- (c) Explain the behaviour effect of taxation on Uganda's economy.

(5 marks)

(Total 25 marks)

Question 3

(a) Mr. Patrick Opolo is dealing in second hand clothes in Natete market. The demand for his products has been declining overtime due to oversupply of the same products by his competitors in the market. For this reason, he has decided to forecast the demand of his product in order to stabilise the supply in the market.

Required:

- (i) Using the above scenario, explain the term trend projection method of demand forecasting. (4 marks)
- (ii) Describe the purpose of carrying out demand forecasting.

(8 marks)

(iii) Describe the different statistical methods used in demand forecasting

(8 marks)

(b) Explain the reasons why the demand curve has a negative slope.

(5 marks)

(Total 25 marks)

Question 4

In the recent past, members of the Budget Committee of Uganda's Parliament questioned the Minister of Finance, Planning and Economic Development on the poor performance of the budget. This issue came about because of poor revenue performance.

Required:

(a) Discuss the role of budgeting in Uganda's economy. (10 marks)

(b) Describe the Ugandan government budgetary process. (10 marks)

(c) With the current high cost of living in Uganda, explain the implications on Uganda's economy if Bank of Uganda reduces lending rate. (5 marks)

(Total 25 marks)

Question 5

(a) Government of Uganda has been involved in trade with various countries within and outside the region. You have been approached by the ministry of Finance, Planning and Economic Development in order to inform Uganda's trade policy

Required:

Explain the following terms:

(i) Terms of trade.

(2 marks)

(ii) Volume of Trade.

(2 marks)

(iii) Balance of payment.

(2 marks)

(b) The Government of Uganda has been involved in trade of wheat and bananas with Kenya. The details of these trade dealings can be illustrated as follows:

Commodities	Kenya	Uganda
Wheat (bushels per hour)	6	1
Bananas (bundles per hour)	4	2

Required:

Using the above illustration, explain the theory of comparative advantage in the production and export of wheat and bananas between Uganda and Kenya.

(11 marks)

(c) Of recent, the trade dealing in (b) above have changed as per the details below:

Commodities	Kenya	Uganda
Wheat (bushels per hour)	6	1
Bananas (bundles per hour)	2	4

Required:

Using the above illustration, explain the theory of absolute advantage in the production and export of wheat and bananas between Uganda and Kenya.

(8 marks) (Total 25 marks)

TEST PAPER 2 CTA NOVEMBER 2018

Attempt four of the five questions

Question 1

(a) Recently, the Government of Uganda through public-private partnership completed the Entebbe Express Highway. Unlike other highways, the use of the Entebbe express shall attract a user fee.

Required:

Explain why the Entebbe Express Highway may lead to more efficient utilisation than other free-to-use highways.

(6 marks)

- (b) Distinguish between the following terms as used in managerial economics:
 - (i) public goods and private goods.

(4 marks)

(ii) marginal cost and variable cost.

(4 marks)

(iii) aggregate demand and aggregate supply.

(4 marks)

(c) Explain the factors that should be the major focus of government of Uganda in improving the welfare of its citizens.

(7 marks)

(Total 25 marks)

Question 2

Mr. Augustine Samanyana runs a bakery producing sawa bread. The demand for Sawa Bread has been increasing overtime due to its good taste. Augustine has consulted you as a public finance expert to advise him on the different demand forecasting methods for his bread to avoid stock-outs.

Required:

(a) Explain to Augustine the following demand forecasting methods:

(i) sample survey method. (3 marks)

(ii) statistical method. (3 marks)

(iii) barometric method. (3 marks)

(iv) trend projection method. (3 marks)

(b) Describe the stages involved in the end-use method of demand forecasting.

(8 marks)

(c) Considering sawa bread as a normal good, and with illustration, explain what happens to the demand for the bread (sawa) when its price increases.

(5 marks)

The Uganda National Budget 2018/19 FY suggested a number of tax reforms including increase of excise duty on bank charges and mobile money transfers.

Required:

- (a) Using appropriate examples, demonstrate how such tax increases may be used by government to achieve:
 - (i) economic growth. (6 marks)
 - (ii) income redistribution. (6 marks)
 - (ii) poverty reduction. (6 marks)
- (b) Explain the effects of a tax increase on consumer behaviour. (7 marks)

(Total 25 marks)

Question 4

Suppose that you have been contracted by government of Uganda to provide critical advice on public finance reform policy in order to meet the objective of allocation, distribution and stabilisation of the economy.

Required:

- (a) Advise the government on public finance reform policy to achieve the following:
 - (i) allocation. (3 marks)
 - (ii) distribution. (3 marks)
 - (ii) stabilisation. (3 marks)
- (b) Describe the role of government in economic development. (8 marks)
- (c) Discuss the ways in which fiscal instruments may be used to stimulate economic growth.

(8 marks) (Total 25 marks)

Question 5

Uganda's National Development Plan II aims at lifting the incomes of the poor Ugandans and closing the income gap between the rich and the poor. Some economists criticised the recent one per cent tax on mobile money transfers as being a progressive tax. They argue that much as government is in need of revenue it may instead widen the income gap.

Required:

- (a) Discuss the effect of a progressive tax on consumer behaviour. (6 marks)
- (a) Explain possible sources government revenues. (10 marks)
- (b) Discuss principles of a good tax system. (9 marks)

TEST PAPER 3 CTA MAY 2019

Attempt four of the five questions

Question 1

(a) The 2017 World Bank report on Uganda's economic outlook indicated that Uganda's savings to gross domestic product (GDP) level ratio is less than 20% which is below the East African average. The low ratio implies that both average and marginal propensities to save in Uganda are also low.

Required:

Explain the differences between:

(i) average propensity to save and marginal propensity to save.

(3 marks)

- (ii) gross domestic product and gross national product. (4 marks)
- (b) Discuss the major factors that affect private savings in Uganda. (8 marks)
- (c) Every year the Ministry of Finance, Planning and Economic Development takes lead in the national budgeting process.

Required:

Explain the objectives of the national budgeting process. (10 marks) (Total 25 marks)

Question 2

- (a) Differentiate between the following terms as used in international trade:
 - (i) 'Terms of trade' and 'terms of payment'. (2 marks)
 - (ii) 'Volume of trade' and 'value of trade'. (3 marks)
- (b) Uganda's balance of payments position within the East African Community has been improving over the last 8 years. In the financial year 2017/ 18 Uganda registered a balance of payment surplus with Kenya.

Required:

Discuss the major factors that may have contributed to Uganda's balance of payment surplus.

(10 marks)

(c) The Structural Adjustment Programme (SAP) was introduced in Uganda by the World Bank and International Monetary Fund (IMF) in the 1990s to reduce government's role in the economy. This programme assumed that market would function efficiently under the private sector-led economy.

Required:

Explain instances where the market may not be relied upon in the provision of goods and services. (10 marks)

(Total 25 marks)

(a) The Parliamentary committee on the national economy discussed the possibility of liberalisation of the pension sector. Once passed, workers shall have the liberty to choose managers of their pensions. The proponents of liberal pension sector believe workers stand to gain higher returns on their contributions once the pension sector is liberalised. The opponents of pension liberalisation on the other hand, contend that the current monopoly has provided safety for the funds since it is a government organisation.

Required:

Explain the characteristics of the following market structures in relation to pension management regimes suggested above.

(i) perfectly competitive market.

(5 marks)

(ii) monopoly market.

(4 marks)

(iii) oligopoly market.

(4 marks)

(b) The National Planning Authority is reviewing the performance of the National Development Plan II (NDP II).

Required:

Discuss any **four** national investment priorities under the NDP II.

(12 marks)

(Total 25 marks)

Question 4

(a) The background to the budget for the financial year 2017/ 18 indicated that Uganda's economy grew by over 4.5%.

Required

(i) Differentiate between monetary policy and fiscal policy.

(4 marks)

(ii) Explain any **six** macro-economic indicators for economic performance.

(12 marks)

(b) Explain the reason why per capita gross domestic product may be inappropriate for comparison of individuals' welfare between countries.

(9 marks)

(25 marks)

- (a) Explain the following terms:
 - (i) 'Treasury bill'. (2 marks)
 - (ii) 'Unit trust'. (2 marks)
- (b) Explain how monetary policy may be used to maintain macroeconomic stability.

(12 marks)

(c) Discuss any **three** fiscal policy instruments utilised by the government of Uganda to achieve the redistribution, allocation and resource mobilisation functions.

(9 marks) (25 marks)

TEST PAPER 4 CTA NOVEMBER 2019

Attempt four of the five questions

Question 1

(a) Mr. John Mukalazi incorporated Mivumba Limited over ten years ago. Mivumba Limited is located in the old taxi park in Kampala. The company deals in second hand clothes. Of recent, the company started registering declining profit level due to high levels of competition.

Required:

(i) Explain the different means of competition Mivumba Limited can employee.

(6 marks)

(ii) Discuss any five ways in which profit can be increased in Mivumba Limited.

(10 marks)

(b) Developing countries have created public enterprises for a number of reasons however, their performance has been hindered by many factors.

Required:

Explain the common problems of public enterprises in Uganda's economy.

(9 marks)

(Total 25 marks)

Question 2

Ms. Rema Makula operates Denzo confectionary, one of the leading confectioneries in East Africa. The demand and supply functions of Denzo confectionary are $Q_d=360,000-40P$ and $Q_s=-120,000+120P$ respectively where P is the price level.

Required:

(i) Compute the equilibrium price and quantity of the confectionary.

(8 marks)

(ii) In a bid to outcompete other confectioneries in the region, Ms. Rema Makula recruited a production manager. The new manager wishes to represent the existing demand function as a - bP where a is a constant and b is the slope of the demand function. Assuming that a = 1,000,000 and b = 5. Compute the amount of output when price P is Shs 4,000.

(5 marks)

(iii) Discuss government policies that may affect the demand of Denzo confectionary products.

(12 marks)

(a) Exchange rate market in Uganda was liberalised during the 1990s following the liberalisation of Uganda's economy. This implies that the exchange rate market freely operates by forces of demand and supply.

Required:

Explain the following terms:

(i) Fixed exchange rate.

(4 marks)

(ii) Floating exchange rate.

(4 marks)

(b) The exchange rate of 1USD was Shs 3,200 in January 2018, at the beginning of 2019, the exchange rate of 1USD was Shs 3,550.

Required:

(i) Calculate the percentage change in the exchange rate.

(5 marks)

(ii) Explain whether the Uganda shilling depreciated or appreciated.

(2 marks)

(c) Discuss the effect of national debt burden on Uganda's macro-economic indicators.

(10 marks)

(Total 25 marks)

Question 4

(a) A recent report by World Bank indicates that Uganda's education system has deteriorated over the last 10 years. Nevertheless, education is a public good that may serve to re-distribute income in an economy. Over the years, the government of Uganda has also taken a deliberate effort to encourage private investment in the education sector.

Required:

Discuss how the liberalisation policy has benefitted the education sector.

(10 marks)

- (b) With examples, explain the following terms:
 - (i) Private goods.

(3 marks)

(ii) Public goods.

(3 marks)

(iii) Common resources.

(3 marks)

(c) Explain how fiscal policy can be used to promote income distribution in an economy.

(6 marks) (Total 25 marks)

Question 5

(a) Mr. Ben Kasozi is producing improved charcoal stoves in Kampala District. The demand for his product has been declining over time due to unclear circumstances.

Required:

Explain factors that may determine the demand for the charcoal stoves.

(10 marks)

(b) For the last 15 years, Government of Uganda has been operating a deficit budget. To many, a deficit budget may not be the best way to go for the country because it may exuberate Uganda's debt burden.

Required:

Using your experience as a managerial economist and public finance expert, explain ways of financing a deficit budget.

(6 marks)

(c) Discuss the major objectives of fiscal policy to Uganda's economy.

(9 marks)

TEST PAPER CTA DECEMBER 2020

Attempt four of the five questions.

Question 1

(a) KONKA Ltd deals in the production and sale of energy saving stoves and briquettes. One of the manager's key roles is to assess the firm's performance. However; he is challenged with the determination of the firm's costs. Upon sharing with a collogue he was referred to you a senior economist:

Required:

Explain to the manager the major determinants of costs that KONKA can explore.

(12 marks)

(b) Distinguish between elasticity of demand and elasticity of supply.

(3 marks)

(c) During the 1990s, government of Uganda privatised her economy. However, the government later realised that the private sector was weak and unable to compete with foreign markets, hence the need for public enterprises.

Required:

Explain the rationale for setting up public enterprises in Uganda.

(10 marks)

(Total 25 marks)

Question 2

(a) Mr. Ayot Peter operates Tripod Ltd that deals in soft drinks. The demand and the supply functions of Tripod Ltd are $Q_d = 80,000 - 50P$ and $Q_s = 5,000 + 25P$ respectively; where P is price and Q_d and Q_s are output.

Required:

Determine the equilibrium price (Pe) and output (Qe) of Tripod Ltd.

(8 marks)

- (b) With appropriate examples, explain the following terms:
 - (i) Direct taxes.

(3 marks)

(ii) Indirect taxes.

(3 marks)

(iii) Progressive tax.

(3 marks)

(c) Co-operative societies are considered to be important business organisations in developing countries. In recent times, the co-operative societies are being revived in Uganda with the aim of benefitting its members. However, the existence of co-operative societies in Uganda has been hindered by many factors.

Required:

Explain the common factors that hinder the existence of co-operative societies in Uganda.

(8 marks)

(Total 25 marks)

Question 3

(a) Money is extremely important in an economy because it facilitates the efficient functioning of the economy. All transactions in the modern economy are in form of money.

Required:

With appropriate examples, explain any four characteristics of a good money in an economy.

(8 marks)

(b) Governments in developing countries often fix prices of essential commodities in order to reduce price instabilities and consumer exploitations in the market.

Required:

(i) With the use of illustrations, differentiate between minimum and maximum price legislations.

(4 marks)

(ii) Explain the reason why price controls are unacceptable in Uganda's economy.

(6 marks)

(c) Discuss the expenditure components of Uganda's economy.

(7 marks)

(Total 25 marks)

Question 4

(a) East African Community (EAC) and the Common Market for Eastern and Southern Africa (COMESA) are the working examples of economic integration in developing countries. Economic integration helps member countries enjoy the benefits of integration.

Required:

Discuss how economic integration has benefitted Uganda's economy.

(8 marks)

(b) With appropriate examples, explain the salient features of an emerging economy.

(10 marks)

(c) Discuss the budgetary process of Uganda's government.

(7 marks)

(Total 25 marks)

Question 5

(a) For an economy to function effectively, production and consumption behaviours are essential activities within the economy and must function uninterrupted.

Required:

As a managerial economics and public finance expert, explain the above statement with reference to the major components of the closed economy.

(5 marks)

(b) Labour surveys are essential activities which must be carried out in every economy in order to quantify the labour force in service. Secondly, it helps to determine the structure and the characteristics of the labour force. In a pilot survey carried out by government of Uganda in 2019, it was found out that Uganda's population is approximately 40.6 million people. The number of people within the labour force was estimated to be at 25.1 million. The total number of people employed in the country was estimated to be at 14.3 million while the unemployed are 10.8 million.

Required:

(i) Using the above scenario, compute the unemployment rate in Uganda.

(3 marks)

(ii) Explain ways in which unemployment can be mitigated in Uganda.

(12 marks)

(c) Discuss the role of government in Uganda's economy.

(5 marks)

TEST PAPER 6 CTA OCTOBER 2021

Attempt any four of the five questions.

Question 1

(a) The table below shows the various possible combinations of coffee and banana export in tons from Uganda to Tamia Republic. Assuming there is full and efficient utilisation of resources. Use the information below to

answer the questions) -	į		į	
Combination	Α	В	С	D	Е
Coffee (tons)	600	400	300	100	0
Banana (tons)	2,000	3,200	4,000	5,000	7,000

Required:

(i) Plot the combinations on a graph and briefly describe the curve joining the combination points.

(4 marks)

(ii) Use the curve in 1 (a) (i) above to differentiate between productive efficiency and allocative efficiency.

(6 marks)

(iii) Assuming the export prices per ton of coffee and banana are USD 4,250 and USD 340 respectively. The coffee export attracts an advalorem tax of 2.5% while bananas face an export quota of 6,000 tons.

Required:

Using the information above, compute the maximum revenues and the revenue maximising export combination for Uganda.

(10 marks)

(b) Discuss the policies that can improve the balance of payment position for Uganda.

(5 marks)

(Total 25 marks)

Question 2

(a) Inflation refers to persistent increase in the general price levels of goods and services in a country over time. Uganda's economic outlook during the financial year 2020/ 21 indicates that the core inflation level in the country had been maintained at an average rate of 4.7 per cent per annum for the third year in a row.

Required

(i) Discuss the factors that significantly affect Uganda's inflation rate.

(3 marks)

(ii) Discuss the strategies government of Uganda can use to control inflation.

(6 marks)

(b) Economists and policy analysts in Uganda sometimes disagree on the impact of budget deficits on the economy. The opponents of this policy argue that budget deficit has the potential to enhance capital formation and consequently activate the utilisation of idle resources. However, in the long-run, they argue, that such gains may be eroded due to escalating debt burden especially in developing countries where savings/income ratios are very low.

Required:

(i) Discuss the rationale for deficit budgeting.

(8 marks)

(ii) Explain economic effect of a sustained budget deficit.

(8 marks)

(Total 25 marks)

Question 3

(a) According to Keynes, an economic system is the foundation of fundamental economic decisions regarding what, how and for whom to produce. The market system, the command system as well as the mixed system provide broad channels through which economic decision making of a nation is guided.

Required:

Discuss the salient features of the following economic systems:

(i) Market system.

(5 marks)

(ii) Command system.

(5 marks)

(iii) Mixed system.

(5 marks)

(b) With reference to the current economic system in Uganda, explain the role of capital markets in the development of a nation.

(10 marks)

(a) The structural adjustment policy undertaken by the government of Uganda during the 1990s led to a number of reforms in the social service provisions as well as macro-economic management of the country. The implementation of economic and financial reforms during this period was followed by tight fiscal and monetary policies as well as privatisation of public enterprises and liberalisation of foreign exchange markets.

In social services, private investors took a leading role in service provision while government concentrated on regulation and provision of an enabling environment in the economy. Nevertheless, analysts have criticised the liberalisation policy, arguing that basic services such as health care and education are made unaffordable to the majority of the population as a result of the implementation of this policy.

Required:

(i) Differentiate between private goods and public goods.

(2 marks)

(ii) Discuss instances where the government of Uganda may intervene in a liberalised market.

(7 marks)

(iii) Explain the ways in which the government of Uganda may intervene in a liberalised economy.

(4 marks)

- (b) Using the theories below, explain how exchange rates are determined in an economy.
 - (i) Purchasing power parity.

(4 marks)

(ii) Flow approach.

(4 marks)

(iii) Stock equilibrium.

(4 marks)

Orchard Fruit firm in Soroti District produces and sells pre-packed orange and mango juices. The firm has undertaken substitution of labour for capital in order to enhance output. The performance of this firm over the years can be indicated as below:

Item/ years	2016	2020
Number of packing machines	6	14
Number of casual workers	12	8
Orange juice produced (average cartons/ day)	40	56
Mango juice produced (average cartons/ day)	32	40

Required:

(a) Explain the term marginal rate of technical substitution.

(3 marks)

(b) Illustrate the firm's isoquants for the different levels of factor inputs.

(4 marks)

- (c) Compute and interpret the marginal:
 - (i) product of labour.

(4 marks)

(ii) product of capital.

(4 marks)

(iii) rate of technical substitution of labour for capital.

(5 marks)

(d) Explain the economic benefits of the Orchard Fruit firm to Soroti District.

(5 marks)

TEST PAPER 7 CTA JUNE 2020

Attempt any four of the five questions

Question 1

(a) An economy is made up of producers and consumers that are concerned with achieving their objectives. In the quest to attain their objectives, they are faced with a number of problems.

Required:

Discuss the fundamental problems that are always faced by economic agents.

(6 marks)

(b) Uganda's economy has grown over a period of time.

Required:

Discuss the main structure of Uganda's economy.

(10 marks)

(c) Uganda's budget process operates through a cycle. In the budget cycle there are processes that need to be completed for the budget process to be successful.

Required:

Discuss Uganda's budget process.

(9 marks)

(Total 25 marks)

Question 2

(a) Mr Ngeta operates a groundnuts processing plant in Kisenyi, Kampala district. The demand function for the processed groundnuts in kilograms is $Q_d = 10 - \frac{20}{30}P$, where P is the price per kg of processed groundnuts.

Required:

(i) Calculate the elasticity of demand for the processed groundnuts if the original price and quantity is Shs 9,000 and 1,000kg respectively.

(5 marks)

(ii) Explain the determinants of elasticity of demand for the processed groundnuts.

(10 marks)

(b) Discuss the benefits of Uganda's adoption of privatisation policy to small scale businesses and household units. (10 marks)

- (a) Differentiate between the following terms:
 - (i) A firm and an industry.

(2 marks)

(ii) Output and input.

(2 marks)

(iii) Short run and long run.

(2 marks)

(b) Discuss the major objectives of a business firm.

(9 marks)

(c) The role of government of Uganda involves transfer of funds from the reserves to local government. The intention of this transfer is to facilitate the activities of the local government so as to produce the desired output.

Required:

Explain how such transfers can benefit small holder firms in local governments.

(10 marks)

(Total 25 marks)

Question 4

(a) In the early 1980s government of Uganda had a policy of controlling prices of the major agricultural products in the country. Such products would then be marketed through marketing boards. The major advantage of such policy is that producers and consumers of these products would be protected through price fluctuations.

Required:

Explain the effect of price ceiling on consumers of such goods.

(10 marks)

(b) Explain how price support can benefit producers.

(10 marks)

(c) Assess the structure of public expenditure policy in Uganda's economy.

(5 marks)

(a) Explain the following terms:

(i) Narrow money (M1).

(2 marks)

(ii) Broad money (M2).

(2 marks)

(b) Explain the functions of money in Uganda's economy.

(5 marks)

(c) Discuss the qualities of good money.

(10 marks)

(d) Explain the following terms:

(i) Progressive tax.

(3 marks)

(ii) Regressive tax.

(3 marks)

TEST PAPER 8 CTA MAY 2023

Attempt any four of the five questions

Question 1

- (a) Cost-benefit analysis is an analytical technique used to identify the benefits and associated costs of businesses, decisions, systems or projects.
 - (i) Discuss the different steps taken in the cost benefit analysis.

(8 marks)

(ii) Mr. Abima is seeking services of a business development manager for advice on the viability of a catering project which he intends to invest in. The table below shows the estimates of the benefits and the associated costs generated for the project for the first five years.

Year	Estimated Revenues (Shs '000')	Estimated Costs (Shs '000')
0		232,000
1	20,000	36,000
2	34,000	32,000
3	40,000	26,000
4	48,000	24,000
5	54,000	20,000

Required:

Given a discount rate of 15%, calculate the net present value and advise Mr. Abima on the viability of the above project.

Hint: Discount factor formula = $(1 + r)^{-n}$

(11 marks)

(b) Income distribution is concerned with how incomes and resources are shared among different kinds of people, groups, sectors and regions in an economy. However, most developing economies have high levels of income disparities.

Required:

Account for the income disparities in developing economies.

(6 marks)

(a) Given the Marginal Propensity to Consume (MPC) as 0.20 and the change in investment as 200. Assuming that the MPC increases to 0.80 at the same level of investment;

Required:

Compute the change in the equilibrium rate of the Gross National Product (GNP) and comment on the multiplier process.

(9 marks)

(b) Discuss the main causes of unemployment in developing countries.

(16 marks)

(Total 25 marks)

Question 3

(a) The theory of International trade contends that countries that are involved in the trade stand to gain from it. However, most countries tend to impose trade restrictions.

As a skilled advisor in the field of managerial economics and public finance;

Required:

Discuss the reasons for controlling international trade.

(9 marks)

(b) The East African Community (EAC) is an inter-governmental organization founded in the African Great Lakes region of East Africa.

Required:

Explain any four objectives of the East African Community (EAC).

(4 marks)

(c) Discuss the achievements and failures of the International Monetary Fund in developing countries.

(12 marks)

(a) Public resource mobilization is critical for the general management of an economy. Consequently, it generates a lot of public discussion in democratic societies.

Required:

(i) Distinguish between internal debt and external debt.

(4 marks)

(ii) Using relevant examples, discuss the different ways in which public debt management can be carried out in an economy.

(12 marks)

- (b) Write short notes on the following terms;
 - (i) Economic growth

(3 marks)

(ii) Economic development

(3 marks)

(iii) Sustainable development

(3 marks)

(Total 25 marks)

Question 5

(a) The original purpose of the budget is to raise revenue to meet government expenditure. Today, it's a major instrument for the regulation of the economy and is a source of inspiration for people to work harder. However, the public is always questioning and never satisfied with the figures of what government intends to spend on.

Required:

Discuss the different categories of government expenditure in an economy.

(14 marks)

(b) Public finance as an aspect of public policy affects the economic well-being of all persons in the society through its revenue mobilization and expenditure measures. As a student of managerial economics and public finance, you are expected to provide advice on public financial management.

Required:

Discuss how government incomes from taxes and borrowings as well as government expenditure can be used as policy instruments for economic control.

(5 marks)

(c) Describe the various ways in which the theory of opportunity cost can be used to decide on the level and allocation of public resources.

(6 marks)

TEST PAPER 9 CTA 4 - NOVEMBER 2023

Question 1

(a) The concept of elasticity is used in many disciplines. It measures the degree of responsiveness of one variable as a result of a given change in the other variable. This concept has also been used by economists to analyze supply and demand with greater precision. This concept of elasticity has also been very important to multinational companies in assessing the demand and supply of their products in various markets. For instance, the idea of cross elasticity of demand is implicitly used in assessing whether a proposed merger between two large firms will substantially reduce competition.

Required:

(i) Distinguish between Elasticity of Demand and Elasticity of Supply. (2 marks)

(ii) Using Century Bottling and Crown Beverages as examples of two large firms, explain how government can let the proposed merger of the two firms to happen.

(5 marks)

(iii) Discuss the application of the concept of elasticity in day to day economic situations.

(8 marks)

(b) Decision making is an integral part of today's business management. The application of economics is not limited to business organizations but all nature of organizations that use its tools to make decisions. A good decision is based on logic, available data and possible alternatives while applying quantitative approach. Once good decisions are made by a firm, better results will be experienced by the firm in the form of growth, profitability as well as the achievement of other goals of the firm.

Required:

As an expert in Managerial Economics and Public Finance, explain ways in which organizations can use Economics in managerial decision making.

(10 marks)

(a) Uganda has implemented liberalization policies since the 1990's. The advent of economic liberalization resulted in the introduction of competition in almost all sectors of the economy. Ever since the Ugandan economy was liberalized, the market forces of demand and supply have been key in the determination of goods and services demanded or supplied in the country. The private sector has since excelled in provision of social services for instance education and health. Liberalization of the economy has led to competition and therefore improving efficiency in service delivery as the citizens are able to access high quality goods and services. However, this has been seen to have both positive and negative effects on Uganda's economy.

Required:

As an expert in Managerial Economics and Public Finance, discuss the positive and negative effects of liberalization policy on Uganda's economy.

(10 marks)

(b) Businesses constitute one part of the private sector. Regardless of the type of business organization, all companies must assume liabilities to facilitate growth and operations. The liability of business owners depends on the specific type of business organizations. These are also characterized by their own strategies, management and organizational relationships. People usually choose a given type of business organization depending on their tastes and preferences. They may decide to choose a sole proprietorship business, partnership or even form companies. All these business forms have their requirements as well as advantages.

Required:

With your expertise as a Managerial Economist and Public Finance Specialist, write short notes on the following terms:

(i) Sole Proprietorship.	(2 marks)
(ii) Partnership.	(2 marks)
(iii) Corporation	(2 marks)

(c) Uganda which is classified as a developing country in terms of economic and social development has significant natural resources as its salient features. Records from the Ministry of Finance, Planning and Economic Development of Uganda indicate that the economy has been steadily growing over the past decade. This growth has attracted several investors to come and invest in the country which has further boosted government revenue and also

helped to solve some of the persistent problems in Uganda like the unemployment problem.

Required:

Using illustrations, discuss the salient features of Uganda's economy.

(9 marks) (Total 25 marks)

Question 3

(a) The capital market industry has various products available to it. In Uganda, there are three products that one can trade in the capital market. These are; shares, collective investment schemes and bonds. This has since greatly improved Uganda's economic performance. Nevertheless, trade in foreign currencies often witness random fluctuations in the exchange rate system.

Required:

As an expert in Managerial Economics and Public Finance;

(i) Define the concept of devaluation of a currency.

(2 marks)

(ii) Discuss the role of capital markets in the development of a nation.

(10 marks)

(b) According to World Bank Statistics of 2022, unemployment in Uganda has been reported to settle at 4.28 percent. Uganda has set skilling workshops, funds and other measures to curb the unemployment problem. Youth unemployment remains a serious challenge in many Sub-Saharan African Countries. For Uganda's case, a report from Uganda's Bureau of Statistics (UBOS) reveals that the share of unemployed youth among the total unemployed persons in the country is 64 percent. The UBOS report further reveals that urban youth are more likely to be unemployed (12 percent) than rural youth (3 percent). Interestingly, the report notes that unemployment increases with the level of education attained, among other factors. The table below shows unemployment data collected from one of the cities in Uganda.

	Number of people (November 2022)
Population (Age 15+)	3,196,470
Labor Force	2,071,590
Employed	1,966,630
Unemployed	104,960

Required:

Use your expertise and knowledge to:

(i) Compute the Labor Force participation rate and unemployment rate for the city.

(6 marks)

(ii) Explain the causes of the persistent unemployment problem in Uganda.

(7 marks) (Total 25 marks)

Question 4

(a) Tax is one of the sources of public revenue in Uganda. In Uganda's economy, tax rates can be raised and also new taxes can be introduced to meet the numerous needs of the government. These tax adjustments are mainly done by parliament of Uganda. Taxes in Uganda are collected by Uganda Revenue Authority for remittance in the consolidated fund. These taxes can either be direct or indirect. An ideal tax system is the one that fulfils certain principles and yet helpful in achieving the set objectives of the government. As an expert in Managerial Economics and Public Finance, you have been hired to address salient tax issues to new trainees in an organization.

Required:

In relation to the above scenario, explain the salient tax issues to address to the trainees of an organization.

(11 marks)

(b) Central governments usually take loans to cover a number of activities. Sometimes, public revenue is not sufficient to address developmental and social welfare issues. In such a case, the government has to borrow funds both from within and outside the country. Nevertheless, if a county borrows excessively, debts can pile up.

Required:

As an expert in Managerial Economics and Public Finance, discuss the reasons why a country should incur public debt.

(14 marks) (Total 25 marks)

(a) From economic theories, Economic Growth is measured as an aggregate increase in output of an economy and economic development on the other hand is considered to be a multi-dimensional concept involving improvements in welfare. Critics have however, pointed out that national income is a narrow measure of welfare since it does not consider non-economic aspects of welfare like environment, freedom or access to health and education. This explains the reason why critics of Gross Domestic Product (GDP) as a measure of economic growth highlight that "economic growth is a necessary but not a sufficient condition for economic development".

Required:

With credible reasons, explain the above statement as highlighted by critics. (5 marks)

(b) A recently published World Bank working paper entitled, "The rise and the fall of import substitution strategy of industrialization", examined the arguments for import substitution strategy of industrialization in developing economies and drew lessons from it. Nonetheless, in Uganda's context, the National Development Plan III emphasizes on "replacement of imported raw materials by the locally manufactured raw materials" as one of the key drivers of development that Uganda must pursue between the financial years 2020/21 and 2024/25 in order to achieve development objectives. The National Planning Authority also prepared an Import Substitution Action Plan to guide the implementation of this strategy.

Required:

As a Managerial Economist, discuss ways through which developing economies can achieve import substitution strategy of industrialization, with Uganda as a case study.

(10 marks)

(c) The 21st Century depicts a time of spectacular technological progress. Unfortunately, not all of world economies benefit from it. Many economies have already been left behind and risk falling even further behind due to the political, economic and social consequences of rapidly expanding inequality. Although tremendous technological leaps are being made in the world, the economic and social benefits remain geographically concentrated, especially in developed countries. Too often, the Least Developed Countries (LDCs) remain far behind if not excluded entirely from the new development. This is not because they lack the determination and the will to develop but

because of the serious and various development challenges that these countries continue to face.

Required:

As an expert in Managerial Economics and Public Finance, explain the challenges that developing countries often face in the development of appropriate technology so as to participate fully in an increasingly competitive global market.

(10 marks) (Total 25 marks)

TEST PAPER 10 CTA 4 - MAY 2024

Question 1

(a) Due to scarcity of resources, the decisions in an economic system like what to produce, how to produce and to whom to produce are made through price mechanism. It is an important method of allocating and rationing resources in a free market economy. Price mechanism system allows buyers and sellers to determine the price of a commodity. Prices adjust accordingly and resources are allocated to where they are most valued.

Required:

As an expert in managerial economics and public finance, explain the role of price mechanism in resource allocation.

(8 marks)

(b) In the past 30 years, Uganda has worked towards achieving economic growth reforms and poverty reduction. However, the country remains a low-income country and income inequality in Uganda is an issue. According to a 2022 research article, Uganda's inequality has been aggravated by several factors; uneven land distribution, household sizes, disparities in access to education, inequalities in employment opportunities among others. In the recent discussions, it has been noted that "income inequality in Uganda is not only a problem for the present but also affects future generations". As an expert in managerial economics and public finance, you have been chosen to join a panel dialogue on income distribution.

Required:

In relation to the above statement, discuss the key highlights in the recent discussions.

(10 marks)

(c) An important component of managerial decision making is the determination of the productivity of inputs used in production process. Measuring productivity evaluates the effectiveness of a production process and making input decisions.

Required:

Write short notes on the following concepts in productivity.

(i) Average product

(2 marks)

(ii) Marginal product

(2 marks)

(iii) Diminishing marginal returns

(3 marks) (Total 25 marks)

Question 2

(a) In the early years, the government of Uganda had set policies for regulating prices of products in the country. Economist argue that price control is the most obvious violation of competition law in all jurisdictions that enforce competition law. In Uganda, government has in theory eliminated price controls in the domestic market through the consistent pursuit of free-market trade and economic policies. However, the absence of an autonomous and competent competition authority undermines adherence to the guest for market-determined pricing structures.

Required:

(i) Define the term "price control".

(2 marks)

(ii) Explain the reasons why the government needs to regulate prices of commodities in an economy.

(12 marks)

(b) In the recently established industrial park, a certain firm is interested in the procurement of a machine to improve the production process. A consultant presented a proposal with two capital projects involving the purchase of two machines; A and B. As an expert in managerial economics and public finance, you have been hired to evaluate the proposals and advise management having been given the information below relating to the cashflows of both machines.

	Net Cash Flows (Shs. '000')			
	Machine A	Machine B		
Initial Cost	50,000	45,000		
Year 1	25,500	12,500		
Year 2	24,500	15,500		
Year 3	17,000	21,000		
Year 4	14,000	38,000		

Required:

Evaluate the projects using the Net Present Value criterion at a discount rate of 10% and advise management on an admissible project.

(11 marks) (Total 25 marks)

Question 3

(a) The Central bank of Uganda was established under the Bank of Uganda Statute (1993) to supervise, regulate, control and discipline all financial institutions, insurance companies and pension funds, as stipulated in section 5(j) of the statute. It also makes provisions for regulating the issuing of legal tenders and maintaining a sound financial structure, adequate and reasonable banking services for the public.

Required:

Discuss the role of the central bank in the development of an economy.

(10 marks)

(b) Uganda's involvement in regional and global trade is limited to a narrow range of products, mostly primary products or semi-processed agricultural products. However, there are prospects for its manufactures in regional markets following the recent growth of the country's manufacturing capacity. Deteriorating terms of trade and current account balances have in the recent past had a negative effect on Uganda's balance of payments position.

Required:

As an expert in managerial economics and public finance, explain the following concepts as used in trade.

(i) Terms of trade.

(3 marks)

(ii) Balance of payment.

(3 marks)

(c) Inflation reflects the annual percentage change in the cost to the average consumer of acquiring a basket of goods. From the macro trends, Uganda's core inflation is expected to be 3.0% by the end of this quarter. In a working paper titled "Dynamics of inflation in Uganda", a single equation Error Correction Model (ECM) was used. It was grounded on the quantity theory of money including both external and domestic variables. The main finding was that both external and domestic factors explain dynamics in inflation in Uganda.

Required:

With illustrations, discuss the main findings of the working paper.

(9 marks)

(Total 25 marks)

Question 4

(a) Public revenue enables the government to fulfil its economic and social objectives. A significant amount of the public revenue goes towards providing healthcare, education, welfare schemes, and also towards the defense services. Over time, the government of Uganda has explored various tax policies. In order to generate tax revenue, Uganda Revenue Authority has implemented different campaigns to sensitize the general public about taxes. However, it has been realized that the ability of individuals and businesses to pay taxes is still low. As an expert in managerial economics and public finance;

Required:

(i) Discuss the sources of government revenue.

(7 marks)

(ii) Explain the reasons why Uganda's taxable capacity is still low.

(10 marks)

(b) In a broader macro-economic context for public policy, governments seek to ensure that both the level and the rate of growth in their public debt are fundamentally sustainable over time and can be serviced under a wide range of circumstances. They face policy choices concerning debt management objectives and practices that can also reduce vulnerability to public debt.

Required:

Discuss the strategies in which public debt management is carried out.

(8 marks)

(Total 25 marks)

Question 5

(a) Most modern economists accept that economic growth takes place through various stages. At any given time, an economy can lie within one of the stages. In the 1960's, Rostow introduced the concept of stages of economic growth. Given proper utilization of natural resources of a country, economics scholars have shown that an increase in the production of goods and services leads to economic development. However, some economies are described as under-developed when economic development is in progress or incomplete.

Required:

(i) Discuss the various stages of economic growth according to Rostow.

(10 marks)

(ii) Explain the characteristics of under-developed economies.

(7 marks)

(b) In the production of commodities, different techniques can be adopted. Both small and large firms aim at selecting new and innovative methods of production. A producer can adopt either a capital-intensive technique or labor-intensive technique.

Required:

(i) With an illustration, distinguish between the capital-intensive and labor-intensive techniques as used in production.

(2 marks)

(ii) Explain the factors that determine the choice of a production technique for a producer.

(6 marks)

(Total 25 marks)

Managerial Economics & Public Finance - Paper 4

Present value interest factor of Shs 1 per period at r% for n periods $\left(1+r\right)^{-n}$

1		 		- P -	P		- P	()					
2	Period	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	11%	12%
3	1	0.990	0.980	0.971	0.962	0.952	0.943	0.935	0.926	0.917	0.909	0.901	0.893
4	2	0.980	0.961	0.943	0.925	0.907	0.890	0.873	0.857	0.842	0.826	0.812	0.797
5 0.951 0.906 0.863 0.822 0.784 0.747 0.713 0.681 0.650 0.621 0.593 0.566 6 0.942 0.888 0.837 0.790 0.746 0.705 0.666 0.633 0.596 0.554 0.535 0.556 7 0.933 0.871 0.813 0.760 0.711 0.665 0.623 0.583 0.547 0.513 0.442 0.434 0.44 8 0.923 0.885 0.789 0.731 0.677 0.627 0.582 0.544 0.500 0.460 0.424 0.331 0.36 10 0.905 0.820 0.744 0.676 0.614 0.558 0.580 0.463 0.422 0.388 0.320 0.424 0.383 0.320 0.429 0.388 0.350 0.317 0.226 11 0.890 0.878 0.671 0.625 0.557 0.497 0.444 0.397 0.356 0.319 <	3	0.971	0.942	0.915	0.889	0.864	0.840	0.816	0.794	0.772	0.751	0.731	0.712
6 0.942 0.888 0.837 0.790 0.746 0.705 0.666 0.630 0.596 0.564 0.535 0.55 7 0.933 0.871 0.813 0.760 0.711 0.665 0.623 0.583 0.547 0.513 0.482 0.44 8 0.923 0.853 0.789 0.731 0.677 0.627 0.582 0.540 0.502 0.467 0.434 0.44 9 0.914 0.837 0.766 0.703 0.644 0.559 0.544 0.500 0.460 0.424 0.331 0.36 10 0.905 0.820 0.744 0.676 0.614 0.558 0.580 0.463 0.422 0.388 0.330 0.331 0.226 11 0.869 0.804 0.722 0.665 0.557 0.497 0.444 0.388 0.350 0.319 0.226 0.23 13 0.879 0.773 0.661 0.577 0.505 </td <td>4</td> <td>0.961</td> <td>0.924</td> <td>0.888</td> <td>0.855</td> <td>0.823</td> <td>0.792</td> <td>0.763</td> <td>0.735</td> <td>0.708</td> <td>0.683</td> <td>0.659</td> <td>0.636</td>	4	0.961	0.924	0.888	0.855	0.823	0.792	0.763	0.735	0.708	0.683	0.659	0.636
7 0.933 0.871 0.813 0.760 0.711 0.665 0.623 0.583 0.547 0.513 0.482 0.482 8 0.923 0.853 0.789 0.731 0.677 0.627 0.582 0.540 0.502 0.467 0.434 0.44 9 0.914 0.837 0.766 0.703 0.645 0.592 0.544 0.500 0.460 0.424 0.391 0.33 10 0.995 0.820 0.744 0.676 0.614 0.558 0.503 0.463 0.422 0.366 0.352 0.31 11 0.896 0.844 0.722 0.650 0.585 0.527 0.475 0.422 0.388 0.350 0.331 0.225 12 0.887 0.773 0.661 0.601 0.530 0.442 0.388 0.326 0.290 0.258 0.22 0.215 14 0.870 0.758 0.661 0.577 0.505 0.44	5	0.951	0.906	0.863	0.822	0.784	0.747	0.713	0.681	0.650	0.621	0.593	0.567
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9	7	0.933	0.871	0.813	0.760	0.711	0.665	0.623	0.583	0.547	0.513	0.482	0.452
10	8	0.923	0.853	0.789	0.731	0.677	0.627	0.582	0.540	0.502	0.467	0.434	0.404
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12	10	0.905	0.820	0.744	0.676	0.614	0.558	0.508	0.463	0.422	0.386	0.352	0.322
13	11	0.896	0.804	0.722	0.650	0.585	0.527	0.475	0.429	0.388	0.350	0.317	0.287
14	12	0.887	0.788	0.701	0.625	0.557	0.497	0.444	0.397	0.356	0.319	0.286	0.257
15	13	0.879	0.773	0.681	0.601	0.530	0.469	0.415	0.368	0.326	0.290	0.258	0.229
16	14	0.870	0.758	0.661	0.577	0.505	0.442	0.388	0.340	0.299	0.263	0.232	0.205
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1 0.885 0.877 0.870 0.862 0.855 0.847 0.840 0.833 0.826 0.820 0.813 0.80 2 0.783 0.769 0.756 0.743 0.731 0.718 0.706 0.694 0.683 0.672 0.661 0.653 3 0.693 0.675 0.658 0.641 0.624 0.609 0.593 0.579 0.564 0.551 0.537 0.52 4 0.613 0.592 0.572 0.552 0.534 0.516 0.499 0.482 0.467 0.451 0.437 0.42 5 0.543 0.519 0.497 0.476 0.456 0.437 0.419 0.402 0.386 0.370 0.355 0.34 6 0.480 0.456 0.432 0.410 0.390 0.370 0.352 0.335 0.319 0.303 0.289 0.27 7 0.425 0.400 0.376 0.354 0.333 0.314	20	0.820	0.673	0.554	0.456	0.377	0.312	0.258	0.215	0.178	0.149	0.124	0.104
1 0.885 0.877 0.870 0.862 0.855 0.847 0.840 0.833 0.826 0.820 0.813 0.80 2 0.783 0.769 0.756 0.743 0.731 0.718 0.706 0.694 0.683 0.672 0.661 0.653 3 0.693 0.675 0.658 0.641 0.624 0.609 0.593 0.579 0.564 0.551 0.537 0.52 4 0.613 0.592 0.572 0.552 0.534 0.516 0.499 0.482 0.467 0.451 0.437 0.42 5 0.543 0.519 0.497 0.476 0.456 0.437 0.419 0.402 0.386 0.370 0.355 0.34 6 0.480 0.456 0.432 0.410 0.390 0.370 0.352 0.335 0.319 0.303 0.289 0.27 7 0.425 0.400 0.376 0.354 0.333 0.314													
2 0.783 0.769 0.756 0.743 0.731 0.718 0.706 0.694 0.683 0.672 0.661 0.653 3 0.693 0.675 0.658 0.641 0.624 0.609 0.593 0.579 0.564 0.551 0.537 0.52 4 0.613 0.592 0.572 0.552 0.534 0.516 0.499 0.482 0.467 0.451 0.437 0.419 5 0.543 0.519 0.497 0.476 0.456 0.437 0.419 0.402 0.386 0.370 0.355 0.34 6 0.480 0.456 0.432 0.410 0.390 0.370 0.352 0.335 0.319 0.303 0.289 0.27 7 0.425 0.400 0.376 0.354 0.333 0.314 0.296 0.279 0.263 0.249 0.233 0.218 0.204 0.191 0.17 9 0.333 0.308 0.284 <td>Period</td> <td>13%</td> <td>14%</td> <td>15%</td> <td>16%</td> <td>17%</td> <td>18%</td> <td>19%</td> <td>20%</td> <td>21%</td> <td>22%</td> <td>23%</td> <td>24%</td>	Period	13%	14%	15%	16%	17%	18%	19%	20%	21%	22%	23%	24%
3 0.693 0.675 0.658 0.641 0.624 0.609 0.593 0.579 0.564 0.551 0.537 0.52 4 0.613 0.592 0.572 0.552 0.534 0.516 0.499 0.482 0.467 0.451 0.437 0.42 5 0.543 0.519 0.497 0.476 0.456 0.437 0.419 0.402 0.386 0.370 0.355 0.34 6 0.480 0.456 0.432 0.410 0.390 0.370 0.352 0.335 0.319 0.303 0.289 0.27 7 0.425 0.400 0.376 0.354 0.333 0.314 0.296 0.279 0.263 0.249 0.235 0.22 8 0.376 0.351 0.327 0.305 0.285 0.266 0.249 0.233 0.218 0.204 0.191 0.17 9 0.333 0.308 0.284 0.263 0.243 0.225	1	0.885	0.877	0.870	0.862	0.855	0.847	0.840	0.833	0.826	0.820	0.813	0.806
4 0.613 0.592 0.572 0.552 0.534 0.516 0.499 0.482 0.467 0.451 0.437 0.425 5 0.543 0.519 0.497 0.476 0.456 0.437 0.419 0.402 0.386 0.370 0.355 0.34 6 0.480 0.456 0.432 0.410 0.390 0.370 0.352 0.335 0.319 0.303 0.289 0.27 7 0.425 0.400 0.376 0.354 0.333 0.314 0.296 0.279 0.263 0.249 0.235 0.22 8 0.376 0.351 0.327 0.305 0.285 0.266 0.249 0.233 0.218 0.204 0.191 0.17 9 0.333 0.308 0.284 0.263 0.243 0.225 0.209 0.194 0.180 0.167 0.155 0.14 10 0.295 0.270 0.247 0.227 0.208 0.191 <td>2</td> <td>0.783</td> <td>0.769</td> <td>0.756</td> <td>0.743</td> <td>0.731</td> <td>0.718</td> <td>0.706</td> <td>0.694</td> <td>0.683</td> <td>0.672</td> <td>0.661</td> <td>0.650</td>	2	0.783	0.769	0.756	0.743	0.731	0.718	0.706	0.694	0.683	0.672	0.661	0.650
5 0.543 0.519 0.497 0.476 0.456 0.437 0.419 0.402 0.386 0.370 0.355 0.34 6 0.480 0.456 0.432 0.410 0.390 0.370 0.352 0.335 0.319 0.303 0.289 0.27 7 0.425 0.400 0.376 0.354 0.333 0.314 0.296 0.279 0.263 0.249 0.235 0.22 8 0.376 0.351 0.327 0.305 0.285 0.266 0.249 0.233 0.218 0.204 0.191 0.17 9 0.333 0.308 0.284 0.263 0.243 0.225 0.209 0.194 0.180 0.167 0.155 0.14 10 0.295 0.270 0.247 0.227 0.208 0.191 0.176 0.162 0.149 0.137 0.126 0.11 11 0.261 0.237 0.215 0.195 0.178 0.162 <td>3</td> <td>0.693</td> <td>0.675</td> <td>0.658</td> <td>0.641</td> <td>0.624</td> <td>0.609</td> <td>0.593</td> <td>0.579</td> <td>0.564</td> <td>0.551</td> <td>0.537</td> <td>0.524</td>	3	0.693	0.675	0.658	0.641	0.624	0.609	0.593	0.579	0.564	0.551	0.537	0.524
6 0.480 0.456 0.432 0.410 0.390 0.370 0.352 0.335 0.319 0.303 0.289 0.27 7 0.425 0.400 0.376 0.354 0.333 0.314 0.296 0.279 0.263 0.249 0.235 0.22 8 0.376 0.351 0.327 0.305 0.285 0.266 0.249 0.233 0.218 0.204 0.191 0.17 9 0.333 0.308 0.284 0.263 0.225 0.209 0.194 0.180 0.167 0.155 0.14 10 0.295 0.270 0.247 0.227 0.208 0.191 0.176 0.162 0.149 0.137 0.126 0.11 11 0.261 0.237 0.215 0.195 0.178 0.162 0.148 0.135 0.123 0.112 0.103 0.09 12 0.231 0.208 0.187 0.168 0.152 0.137 0.124 <td>4</td> <td>0.613</td> <td>0.592</td> <td>0.572</td> <td>0.552</td> <td>0.534</td> <td>0.516</td> <td>0.499</td> <td>0.482</td> <td>0.467</td> <td>0.451</td> <td>0.437</td> <td>0.423</td>	4	0.613	0.592	0.572	0.552	0.534	0.516	0.499	0.482	0.467	0.451	0.437	0.423
7 0.425 0.400 0.376 0.354 0.333 0.314 0.296 0.279 0.263 0.249 0.235 0.225 8 0.376 0.351 0.327 0.305 0.285 0.266 0.249 0.233 0.218 0.204 0.191 0.17 9 0.333 0.308 0.284 0.263 0.243 0.225 0.209 0.194 0.180 0.167 0.155 0.14 10 0.295 0.270 0.247 0.227 0.208 0.191 0.176 0.162 0.149 0.137 0.126 0.11 11 0.261 0.237 0.215 0.195 0.178 0.162 0.148 0.135 0.123 0.112 0.103 0.09 12 0.231 0.208 0.187 0.168 0.152 0.137 0.124 0.112 0.102 0.092 0.083 0.07 13 0.204 0.182 0.163 0.145 0.130 0.116<	5	0.543	0.519	0.497	0.476	0.456	0.437	0.419	0.402	0.386	0.370	0.355	0.341
8 0.376 0.351 0.327 0.305 0.285 0.266 0.249 0.233 0.218 0.204 0.191 0.17 9 0.333 0.308 0.284 0.263 0.243 0.225 0.209 0.194 0.180 0.167 0.155 0.14 10 0.295 0.270 0.247 0.227 0.208 0.191 0.176 0.162 0.149 0.137 0.126 0.11 11 0.261 0.237 0.215 0.195 0.178 0.162 0.148 0.135 0.123 0.112 0.103 0.09 12 0.231 0.208 0.187 0.168 0.152 0.137 0.124 0.112 0.102 0.092 0.083 0.07 13 0.204 0.182 0.163 0.145 0.130 0.116 0.104 0.093 0.084 0.075 0.068 0.06 14 0.181 0.160 0.141 0.125 0.111 0.099<	6	0.480	0.456	0.432	0.410	0.390	0.370	0.352	0.335	0.319	0.303	0.289	0.275
9 0.333 0.308 0.284 0.263 0.243 0.225 0.209 0.194 0.180 0.167 0.155 0.14 10 0.295 0.270 0.247 0.227 0.208 0.191 0.176 0.162 0.149 0.137 0.126 0.11 11 0.261 0.237 0.215 0.195 0.178 0.162 0.148 0.135 0.123 0.112 0.103 0.09 12 0.231 0.208 0.187 0.168 0.152 0.137 0.124 0.112 0.102 0.092 0.083 0.07 13 0.204 0.182 0.163 0.145 0.130 0.116 0.104 0.093 0.084 0.075 0.068 0.06 14 0.181 0.160 0.141 0.125 0.111 0.099 0.088 0.078 0.069 0.062 0.055 0.04 15 0.160 0.140 0.123 0.108 0.095 0.084	7	0.425	0.400	0.376	0.354	0.333	0.314	0.296	0.279	0.263	0.249	0.235	0.222
10 0.295 0.270 0.247 0.227 0.208 0.191 0.176 0.162 0.149 0.137 0.126 0.11 11 0.261 0.237 0.215 0.195 0.178 0.162 0.148 0.135 0.123 0.112 0.103 0.09 12 0.231 0.208 0.187 0.168 0.152 0.137 0.124 0.112 0.102 0.092 0.083 0.07 13 0.204 0.182 0.163 0.145 0.130 0.116 0.104 0.093 0.084 0.075 0.068 0.06 14 0.181 0.160 0.141 0.125 0.111 0.099 0.088 0.078 0.069 0.062 0.055 0.04 15 0.160 0.140 0.123 0.108 0.095 0.084 0.074 0.065 0.057 0.051 0.045 0.04 16 0.141 0.123 0.107 0.093 0.081 0.07	8	0.376	0.351	0.327	0.305	0.285	0.266	0.249	0.233	0.218	0.204	0.191	0.179
11 0.261 0.237 0.215 0.195 0.178 0.162 0.148 0.135 0.123 0.112 0.103 0.092 12 0.231 0.208 0.187 0.168 0.152 0.137 0.124 0.112 0.102 0.092 0.083 0.07 13 0.204 0.182 0.163 0.145 0.130 0.116 0.104 0.093 0.084 0.075 0.068 0.06 14 0.181 0.160 0.141 0.125 0.111 0.099 0.088 0.078 0.069 0.062 0.055 0.04 15 0.160 0.140 0.123 0.108 0.095 0.084 0.074 0.065 0.057 0.051 0.045 0.04 16 0.141 0.123 0.108 0.093 0.081 0.071 0.062 0.054 0.047 0.042 0.036 0.03 17 0.125 0.108 0.093 0.080 0.069 0.0	9	0.333	0.308	0.284	0.263	0.243	0.225	0.209	0.194	0.180	0.167	0.155	0.144
12 0.231 0.208 0.187 0.168 0.152 0.137 0.124 0.112 0.102 0.092 0.083 0.07 13 0.204 0.182 0.163 0.145 0.130 0.116 0.104 0.093 0.084 0.075 0.068 0.06 14 0.181 0.160 0.141 0.125 0.111 0.099 0.088 0.078 0.069 0.062 0.055 0.04 15 0.160 0.140 0.123 0.108 0.095 0.084 0.074 0.065 0.057 0.051 0.045 0.04 16 0.141 0.123 0.107 0.093 0.081 0.071 0.062 0.054 0.047 0.042 0.036 0.03 17 0.125 0.108 0.093 0.080 0.069 0.060 0.052 0.045 0.039 0.034 0.030 0.02 18 0.111 0.095 0.081 0.069 0.059 0.04	10	0.295	0.270	0.247	0.227	0.208	0.191	0.176	0.162	0.149	0.137	0.126	0.116
13 0.204 0.182 0.163 0.145 0.130 0.116 0.104 0.093 0.084 0.075 0.068 0.06 14 0.181 0.160 0.141 0.125 0.111 0.099 0.088 0.078 0.069 0.062 0.055 0.04 15 0.160 0.140 0.123 0.108 0.095 0.084 0.074 0.065 0.057 0.051 0.045 0.04 16 0.141 0.123 0.107 0.093 0.081 0.071 0.062 0.054 0.047 0.042 0.036 0.03 17 0.125 0.108 0.093 0.080 0.069 0.060 0.052 0.045 0.039 0.034 0.03 0.024 0.02 18 0.111 0.095 0.081 0.069 0.059 0.051 0.044 0.038 0.032 0.024 0.02 19 0.098 0.083 0.070 0.060 0.051 0.043	11	0.261	0.237	0.215	0.195	0.178	0.162	0.148	0.135	0.123	0.112	0.103	0.094
14 0.181 0.160 0.141 0.125 0.111 0.099 0.088 0.078 0.069 0.062 0.055 0.04 15 0.160 0.140 0.123 0.108 0.095 0.084 0.074 0.065 0.057 0.051 0.045 0.04 16 0.141 0.123 0.107 0.093 0.081 0.071 0.062 0.054 0.047 0.042 0.036 0.03 17 0.125 0.108 0.093 0.080 0.069 0.060 0.052 0.045 0.039 0.034 0.030 0.02 18 0.111 0.095 0.081 0.069 0.059 0.051 0.044 0.038 0.032 0.028 0.024 0.02 19 0.098 0.083 0.070 0.060 0.051 0.043 0.037 0.031 0.027 0.023 0.020 0.01	12	0.231	0.208	0.187	0.168	0.152	0.137	0.124	0.112	0.102	0.092	0.083	0.076
15 0.160 0.140 0.123 0.108 0.095 0.084 0.074 0.065 0.057 0.051 0.045 0.04 16 0.141 0.123 0.107 0.093 0.081 0.071 0.062 0.054 0.047 0.042 0.036 0.03 17 0.125 0.108 0.093 0.080 0.069 0.060 0.052 0.045 0.039 0.034 0.030 0.02 18 0.111 0.095 0.081 0.069 0.059 0.051 0.044 0.038 0.032 0.028 0.024 0.02 19 0.098 0.083 0.070 0.060 0.051 0.043 0.037 0.031 0.027 0.023 0.020 0.01	13	0.204	0.182	0.163	0.145	0.130	0.116	0.104	0.093	0.084	0.075	0.068	0.061
16 0.141 0.123 0.107 0.093 0.081 0.071 0.062 0.054 0.047 0.042 0.036 0.03 17 0.125 0.108 0.093 0.080 0.069 0.060 0.052 0.045 0.039 0.034 0.030 0.02 18 0.111 0.095 0.081 0.069 0.059 0.051 0.044 0.038 0.032 0.028 0.024 0.02 19 0.098 0.083 0.070 0.060 0.051 0.043 0.037 0.031 0.027 0.023 0.020 0.01	14	0.181	0.160	0.141	0.125	0.111	0.099	0.088	0.078	0.069	0.062	0.055	0.049
17 0.125 0.108 0.093 0.080 0.069 0.060 0.052 0.045 0.039 0.034 0.030 0.02 18 0.111 0.095 0.081 0.069 0.059 0.051 0.044 0.038 0.032 0.028 0.024 0.02 19 0.098 0.083 0.070 0.060 0.051 0.043 0.037 0.031 0.027 0.023 0.020 0.01	15	0.160	0.140	0.123	0.108	0.095	0.084	0.074	0.065	0.057	0.051	0.045	0.040
18 0.111 0.095 0.081 0.069 0.059 0.051 0.044 0.038 0.032 0.028 0.024 0.02 19 0.098 0.083 0.070 0.060 0.051 0.043 0.037 0.031 0.027 0.023 0.020 0.01	16	0.141	0.123	0.107	0.093	0.081	0.071	0.062	0.054	0.047	0.042	0.036	0.032
19 0.098 0.083 0.070 0.060 0.051 0.043 0.037 0.031 0.027 0.023 0.020 0.01	17	0.125	0.108	0.093	0.080	0.069	0.060	0.052	0.045	0.039	0.034	0.030	0.026
	10	0.111	0.095	0.081	0.069	0.059	0.051	0.044	0.038	0.032	0.028	0.024	0.021
	18												
20 0.087 0.073 0.061 0.051 0.043 0.037 0.031 0.026 0.022 0.019 0.016 0.01			0.083	0.070	0.060	0.051	0.043	0.037	0.031	0.027	0.023	0.020	0.017

Present value interest factor of an (ordinary) annuity of Shs 1 per period at r% for n periods $\left(\frac{1-(1+r)^{-n}}{r}\right)$

	10/	20/-	20/	404	E0/-	60/	70/	00/	00/-	100/	110/	1 20/
Period	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	11%	12%
1	0.990	0.980	0.971	0.962	0.952	0.943	0.935	0.926	0.917	0.909	0.901	0.893
2	1.970	1.942	1.913	1.886	1.859	1.833	1.808	1.783	1.759	1.736	1.713	1.690
3	2.941 3.902	2.884	2.829	2.775	2.723	2.673	2.624 3.387	2.577	2.531	2.487	2.444	2.402
4		3.808	3.717	3.630	3.546	3.465		3.312	3.240	3.170	3.102	3.037
5	4.853	4.713	4.580	4.452	4.329	4.212	4.100	3.993	3.890	3.791	3.696	3.605
6	5.795	5.601	5.417	5.242	5.076	4.917	4.767	4.623	4.486	4.355	4.231	4.111
7	6.728	6.472	6.230	6.002	5.786	5.582	5.389	5.206	5.033	4.868	4.712	4.564
8	7.652	7.325	7.020	6.733	6.463	6.210	5.971	5.747	5.535	5.335	5.146	4.968
9	8.566	8.162	7.786	7.435	7.108	6.802	6.515	6.247	5.995	5.759	5.537	5.328
10	9.471	8.983	8.530	8.111	7.722	7.360	7.024	6.710	6.418	6.145	5.889	5.650
11	10.368	9.787	9.253	8.760	8.306	7.887	7.499	7.139	6.805	6.495	6.207	5.938
12	11.255	10.575	9.954	9.385	8.863	8.384	7.943	7.536	7.161	6.814	6.492	6.194
13	12.134	11.348	10.635	9.986	9.394	8.853	8.358	7.904	7.487	7.103	6.750	6.424
14	13.004	12.106	11.296	10.563	9.899	9.295	8.745	8.244	7.786	7.367	6.982	6.628
15	13.865	12.849	11.938	11.118	10.380	9.712	9.108	8.559	8.061	7.606	7.191	6.811
16	14.718	13.578	12.561	11.652	10.838	10.106	9.447	8.851	8.313	7.824	7.379	6.974
17	15.562	14.292	13.166	12.166	11.274	10.477	9.763	9.122	8.544	8.022	7.549	7.120
18	16.398	14.992	13.754	12.659	11.690	10.828	10.059	9.372	8.756	8.201	7.702	7.250
19	17.226	15.678	14.324	13.134	12.085	11.158	10.336	9.604	8.950	8.365	7.839	7.366
20	18.046	16.351	14.877	13.590	12.462	11.470	10.594	9.818	9.129	8.514	7.963	7.469
			. = 0.									
Period	13%	14%	15%	16%	17%	18%	19%	20%	21%	22%	23%	24%
1												
	0.885	0.877	0.870	0.862	0.855	0.847	0.840	0.833	0.826	0.820	0.813	0.806
2	1.668	1.647	1.626	1.605	1.585	1.566	1.547	1.528	1.509	1.492	1.474	1.457
3	1.668 2.361	1.647 2.322	1.626 2.283	1.605 2.246	1.585 2.210	1.566 2.174	1.547 2.140	1.528 2.106	1.509 2.074	1.492 2.042	1.474 2.011	1.457 1.981
2 3 4	1.668 2.361 2.974	1.647 2.322 2.914	1.626 2.283 2.855	1.605 2.246 2.798	1.585 2.210 2.743	1.566 2.174 2.690	1.547 2.140 2.639	1.528 2.106 2.589	1.509 2.074 2.540	1.492 2.042 2.494	1.474 2.011 2.448	1.457 1.981 2.404
2 3 4 5	1.668 2.361 2.974 3.517	1.647 2.322 2.914 3.433	1.626 2.283 2.855 3.352	1.605 2.246 2.798 3.274	1.585 2.210 2.743 3.199	1.566 2.174 2.690 3.127	1.547 2.140 2.639 3.058	1.528 2.106 2.589 2.991	1.509 2.074 2.540 2.926	1.492 2.042 2.494 2.864	1.474 2.011 2.448 2.803	1.457 1.981 2.404 2.745
2 3 4 5 6	1.668 2.361 2.974 3.517 3.998	1.647 2.322 2.914 3.433 3.889	1.626 2.283 2.855 3.352 3.784	1.605 2.246 2.798 3.274 3.685	1.585 2.210 2.743 3.199 3.589	1.566 2.174 2.690 3.127 3.498	1.547 2.140 2.639 3.058 3.410	1.528 2.106 2.589 2.991 3.326	1.509 2.074 2.540 2.926 3.245	1.492 2.042 2.494 2.864 3.167	1.474 2.011 2.448 2.803 3.092	1.457 1.981 2.404 2.745 3.020
2 3 4 5 6 7	1.668 2.361 2.974 3.517 3.998 4.423	1.647 2.322 2.914 3.433 3.889 4.288	1.626 2.283 2.855 3.352 3.784 4.160	1.605 2.246 2.798 3.274 3.685 4.039	1.585 2.210 2.743 3.199 3.589 3.922	1.566 2.174 2.690 3.127 3.498 3.812	1.547 2.140 2.639 3.058 3.410 3.706	1.528 2.106 2.589 2.991 3.326 3.605	1.509 2.074 2.540 2.926 3.245 3.508	1.492 2.042 2.494 2.864 3.167 3.416	1.474 2.011 2.448 2.803 3.092 3.327	1.457 1.981 2.404 2.745 3.020 3.242
2 3 4 5 6 7 8	1.668 2.361 2.974 3.517 3.998 4.423 4.799	1.647 2.322 2.914 3.433 3.889 4.288 4.639	1.626 2.283 2.855 3.352 3.784 4.160 4.487	1.605 2.246 2.798 3.274 3.685 4.039 4.344	1.585 2.210 2.743 3.199 3.589 3.922 4.207	1.566 2.174 2.690 3.127 3.498 3.812 4.078	1.547 2.140 2.639 3.058 3.410 3.706 3.954	1.528 2.106 2.589 2.991 3.326 3.605 3.837	1.509 2.074 2.540 2.926 3.245 3.508 3.726	1.492 2.042 2.494 2.864 3.167 3.416 3.619	1.474 2.011 2.448 2.803 3.092 3.327 3.518	1.457 1.981 2.404 2.745 3.020 3.242 3.421
2 3 4 5 6 7 8 9	1.668 2.361 2.974 3.517 3.998 4.423 4.799 5.132	1.647 2.322 2.914 3.433 3.889 4.288 4.639 4.946	1.626 2.283 2.855 3.352 3.784 4.160 4.487 4.772	1.605 2.246 2.798 3.274 3.685 4.039 4.344 4.607	1.585 2.210 2.743 3.199 3.589 3.922 4.207 4.451	1.566 2.174 2.690 3.127 3.498 3.812 4.078 4.303	1.547 2.140 2.639 3.058 3.410 3.706 3.954 4.163	1.528 2.106 2.589 2.991 3.326 3.605 3.837 4.031	1.509 2.074 2.540 2.926 3.245 3.508	1.492 2.042 2.494 2.864 3.167 3.416 3.619 3.786	1.474 2.011 2.448 2.803 3.092 3.327 3.518 3.673	1.457 1.981 2.404 2.745 3.020 3.242 3.421 3.566
2 3 4 5 6 7 8 9	1.668 2.361 2.974 3.517 3.998 4.423 4.799 5.132 5.426	1.647 2.322 2.914 3.433 3.889 4.288 4.639	1.626 2.283 2.855 3.352 3.784 4.160 4.487 4.772 5.019	1.605 2.246 2.798 3.274 3.685 4.039 4.344	1.585 2.210 2.743 3.199 3.589 3.922 4.207 4.451 4.659	1.566 2.174 2.690 3.127 3.498 3.812 4.078 4.303 4.494	1.547 2.140 2.639 3.058 3.410 3.706 3.954 4.163 4.339	1.528 2.106 2.589 2.991 3.326 3.605 3.837 4.031 4.192	1.509 2.074 2.540 2.926 3.245 3.508 3.726 3.905 4.054	1.492 2.042 2.494 2.864 3.167 3.416 3.619	1.474 2.011 2.448 2.803 3.092 3.327 3.518 3.673 3.799	1.457 1.981 2.404 2.745 3.020 3.242 3.421 3.566 3.682
2 3 4 5 6 7 8 9 10	1.668 2.361 2.974 3.517 3.998 4.423 4.799 5.132 5.426 5.687	1.647 2.322 2.914 3.433 3.889 4.288 4.639 4.946 5.216 5.453	1.626 2.283 2.855 3.352 3.784 4.160 4.487 4.772 5.019 5.234	1.605 2.246 2.798 3.274 3.685 4.039 4.344 4.607 4.833 5.029	1.585 2.210 2.743 3.199 3.589 3.922 4.207 4.451 4.659 4.836	1.566 2.174 2.690 3.127 3.498 3.812 4.078 4.303 4.494 4.656	1.547 2.140 2.639 3.058 3.410 3.706 3.954 4.163 4.339 4.486	1.528 2.106 2.589 2.991 3.326 3.605 3.837 4.031 4.192 4.327	1.509 2.074 2.540 2.926 3.245 3.508 3.726 3.905 4.054 4.177	1.492 2.042 2.494 2.864 3.167 3.416 3.619 3.786 3.923 4.035	1.474 2.011 2.448 2.803 3.092 3.327 3.518 3.673	1.457 1.981 2.404 2.745 3.020 3.242 3.421 3.566 3.682 3.776
2 3 4 5 6 7 8 9 10 11	1.668 2.361 2.974 3.517 3.998 4.423 4.799 5.132 5.426 5.687 5.918	1.647 2.322 2.914 3.433 3.889 4.288 4.639 4.946 5.216 5.453 5.660	1.626 2.283 2.855 3.352 3.784 4.160 4.487 4.772 5.019 5.234 5.421	1.605 2.246 2.798 3.274 3.685 4.039 4.344 4.607 4.833 5.029 5.197	1.585 2.210 2.743 3.199 3.589 3.922 4.207 4.451 4.659 4.836 4.988	1.566 2.174 2.690 3.127 3.498 3.812 4.078 4.303 4.494 4.656 4.793	1.547 2.140 2.639 3.058 3.410 3.706 3.954 4.163 4.339 4.486 4.611	1.528 2.106 2.589 2.991 3.326 3.605 3.837 4.031 4.192 4.327 4.439	1.509 2.074 2.540 2.926 3.245 3.508 3.726 3.905 4.054 4.177 4.278	1.492 2.042 2.494 2.864 3.167 3.416 3.619 3.786 3.923 4.035 4.127	1.474 2.011 2.448 2.803 3.092 3.327 3.518 3.673 3.799	1.457 1.981 2.404 2.745 3.020 3.242 3.421 3.566 3.682 3.776 3.851
2 3 4 5 6 7 8 9 10 11 12	1.668 2.361 2.974 3.517 3.998 4.423 4.799 5.132 5.426 5.687 5.918 6.122	1.647 2.322 2.914 3.433 3.889 4.288 4.639 4.946 5.216 5.453 5.660 5.842	1.626 2.283 2.855 3.352 3.784 4.160 4.487 4.772 5.019 5.234 5.421 5.583	1.605 2.246 2.798 3.274 3.685 4.039 4.344 4.607 4.833 5.029 5.197 5.342	1.585 2.210 2.743 3.199 3.589 3.922 4.207 4.451 4.659 4.836 4.988 5.118	1.566 2.174 2.690 3.127 3.498 3.812 4.078 4.303 4.494 4.656 4.793 4.910	1.547 2.140 2.639 3.058 3.410 3.706 3.954 4.163 4.339 4.486 4.611 4.715	1.528 2.106 2.589 2.991 3.326 3.605 3.837 4.031 4.192 4.327 4.439 4.533	1.509 2.074 2.540 2.926 3.245 3.508 3.726 3.905 4.054 4.177 4.278 4.362	1.492 2.042 2.494 2.864 3.167 3.416 3.619 3.786 3.923 4.035 4.127 4.203	1.474 2.011 2.448 2.803 3.092 3.327 3.518 3.673 3.799 3.902 3.985 4.053	1.457 1.981 2.404 2.745 3.020 3.242 3.421 3.566 3.682 3.776 3.851 3.912
2 3 4 5 6 7 8 9 10 11	1.668 2.361 2.974 3.517 3.998 4.423 4.799 5.132 5.426 5.687 5.918	1.647 2.322 2.914 3.433 3.889 4.288 4.639 4.946 5.216 5.453 5.660	1.626 2.283 2.855 3.352 3.784 4.160 4.487 4.772 5.019 5.234 5.421	1.605 2.246 2.798 3.274 3.685 4.039 4.344 4.607 4.833 5.029 5.197	1.585 2.210 2.743 3.199 3.589 3.922 4.207 4.451 4.659 4.836 4.988	1.566 2.174 2.690 3.127 3.498 3.812 4.078 4.303 4.494 4.656 4.793	1.547 2.140 2.639 3.058 3.410 3.706 3.954 4.163 4.339 4.486 4.611 4.715	1.528 2.106 2.589 2.991 3.326 3.605 3.837 4.031 4.192 4.327 4.439 4.533	1.509 2.074 2.540 2.926 3.245 3.508 3.726 3.905 4.054 4.177 4.278 4.362	1.492 2.042 2.494 2.864 3.167 3.416 3.619 3.786 3.923 4.035 4.127 4.203	1.474 2.011 2.448 2.803 3.092 3.327 3.518 3.673 3.799 3.902 3.985	1.457 1.981 2.404 2.745 3.020 3.242 3.421 3.566 3.682 3.776 3.851 3.912
2 3 4 5 6 7 8 9 10 11 12	1.668 2.361 2.974 3.517 3.998 4.423 4.799 5.132 5.426 5.687 5.918 6.122	1.647 2.322 2.914 3.433 3.889 4.288 4.639 4.946 5.216 5.453 5.660 5.842	1.626 2.283 2.855 3.352 3.784 4.160 4.487 4.772 5.019 5.234 5.421 5.583	1.605 2.246 2.798 3.274 3.685 4.039 4.344 4.607 4.833 5.029 5.197 5.342	1.585 2.210 2.743 3.199 3.589 3.922 4.207 4.451 4.659 4.836 4.988 5.118	1.566 2.174 2.690 3.127 3.498 3.812 4.078 4.303 4.494 4.656 4.793 4.910	1.547 2.140 2.639 3.058 3.410 3.706 3.954 4.163 4.339 4.486 4.611 4.715	1.528 2.106 2.589 2.991 3.326 3.605 3.837 4.031 4.192 4.327 4.439 4.533	1.509 2.074 2.540 2.926 3.245 3.508 3.726 3.905 4.054 4.177 4.278 4.362	1.492 2.042 2.494 2.864 3.167 3.416 3.619 3.786 3.923 4.035 4.127 4.203	1.474 2.011 2.448 2.803 3.092 3.327 3.518 3.673 3.799 3.902 3.985 4.053	1.457 1.981 2.404 2.745 3.020 3.242 3.421 3.566 3.682 3.776 3.851 3.912
2 3 4 5 6 7 8 9 10 11 12 13	1.668 2.361 2.974 3.517 3.998 4.423 4.799 5.132 5.426 5.687 5.918 6.122 6.302	1.647 2.322 2.914 3.433 3.889 4.288 4.639 4.946 5.216 5.453 5.660 5.842 6.002	1.626 2.283 2.855 3.352 3.784 4.160 4.487 4.772 5.019 5.234 5.421 5.583 5.724	1.605 2.246 2.798 3.274 3.685 4.039 4.344 4.607 4.833 5.029 5.197 5.342 5.468	1.585 2.210 2.743 3.199 3.589 3.922 4.207 4.451 4.659 4.836 4.988 5.118 5.229	1.566 2.174 2.690 3.127 3.498 3.812 4.078 4.303 4.494 4.656 4.793 4.910 5.008	1.547 2.140 2.639 3.058 3.410 3.706 3.954 4.163 4.339 4.486 4.611 4.715 4.802	1.528 2.106 2.589 2.991 3.326 3.605 3.837 4.031 4.192 4.327 4.439 4.533 4.611	1.509 2.074 2.540 2.926 3.245 3.508 3.726 3.905 4.054 4.177 4.278 4.362 4.432	1.492 2.042 2.494 2.864 3.167 3.416 3.619 3.786 3.923 4.035 4.127 4.203 4.265	1.474 2.011 2.448 2.803 3.092 3.327 3.518 3.673 3.799 3.902 3.985 4.053 4.108	1.457 1.981 2.404 2.745 3.020 3.242 3.421 3.566 3.682 3.776 3.851 3.912 3.962
2 3 4 5 6 7 8 9 10 11 12 13 14 15	1.668 2.361 2.974 3.517 3.998 4.423 4.799 5.132 5.426 5.687 5.918 6.122 6.302 6.462	1.647 2.322 2.914 3.433 3.889 4.288 4.639 4.946 5.216 5.453 5.660 5.842 6.002 6.142	1.626 2.283 2.855 3.352 3.784 4.160 4.487 4.772 5.019 5.234 5.421 5.583 5.724 5.847	1.605 2.246 2.798 3.274 3.685 4.039 4.344 4.607 4.833 5.029 5.197 5.342 5.468 5.575	1.585 2.210 2.743 3.199 3.589 3.922 4.207 4.451 4.659 4.836 4.988 5.118 5.229 5.324	1.566 2.174 2.690 3.127 3.498 3.812 4.078 4.303 4.494 4.656 4.793 4.910 5.008 5.092	1.547 2.140 2.639 3.058 3.410 3.706 3.954 4.163 4.339 4.486 4.611 4.715 4.802 4.876	1.528 2.106 2.589 2.991 3.326 3.605 3.837 4.031 4.192 4.327 4.439 4.533 4.611 4.675	1.509 2.074 2.540 2.926 3.245 3.508 3.726 3.905 4.054 4.177 4.278 4.362 4.432 4.489	1.492 2.042 2.494 2.864 3.167 3.416 3.619 3.786 3.923 4.035 4.127 4.203 4.265 4.315	1.474 2.011 2.448 2.803 3.092 3.327 3.518 3.673 3.799 3.902 3.985 4.053 4.108 4.153	1.457 1.981 2.404 2.745 3.020 3.242 3.421 3.566 3.682 3.776 3.851 3.912 3.962 4.001
2 3 4 5 6 7 8 9 10 11 12 13 14 15	1.668 2.361 2.974 3.517 3.998 4.423 4.799 5.132 5.426 5.687 5.918 6.122 6.302 6.462 6.604	1.647 2.322 2.914 3.433 3.889 4.288 4.639 4.946 5.216 5.453 5.660 5.842 6.002 6.142 6.265	1.626 2.283 2.855 3.352 3.784 4.160 4.487 4.772 5.019 5.234 5.421 5.583 5.724 5.847 5.954	1.605 2.246 2.798 3.274 3.685 4.039 4.344 4.607 4.833 5.029 5.197 5.342 5.468 5.575 5.668	1.585 2.210 2.743 3.199 3.589 3.922 4.207 4.451 4.659 4.836 4.988 5.118 5.229 5.324 5.405	1.566 2.174 2.690 3.127 3.498 3.812 4.078 4.303 4.494 4.656 4.793 4.910 5.008 5.092 5.162	1.547 2.140 2.639 3.058 3.410 3.706 3.954 4.163 4.339 4.486 4.611 4.715 4.802 4.876 4.938	1.528 2.106 2.589 2.991 3.326 3.605 3.837 4.031 4.192 4.327 4.439 4.533 4.611 4.675 4.730	1.509 2.074 2.540 2.926 3.245 3.508 3.726 3.905 4.054 4.177 4.278 4.362 4.432 4.489 4.536	1.492 2.042 2.494 2.864 3.167 3.416 3.619 3.786 3.923 4.035 4.127 4.203 4.265 4.315 4.357	1.474 2.011 2.448 2.803 3.092 3.327 3.518 3.673 3.799 3.902 3.985 4.053 4.108 4.153 4.189	1.457 1.981 2.404 2.745 3.020 3.242 3.421 3.566 3.682 3.776 3.851 3.912 3.962 4.001 4.033
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17	1.668 2.361 2.974 3.517 3.998 4.423 4.799 5.132 5.426 5.687 5.918 6.122 6.302 6.604 6.729	1.647 2.322 2.914 3.433 3.889 4.288 4.639 4.946 5.216 5.453 5.660 5.842 6.002 6.142 6.265 6.373	1.626 2.283 2.855 3.352 3.784 4.160 4.487 4.772 5.019 5.234 5.421 5.583 5.724 5.847 5.954 6.047	1.605 2.246 2.798 3.274 3.685 4.039 4.344 4.607 4.833 5.029 5.197 5.342 5.468 5.575 5.668 5.749	1.585 2.210 2.743 3.199 3.589 3.922 4.207 4.451 4.659 4.836 4.988 5.118 5.229 5.324 5.405 5.475	1.566 2.174 2.690 3.127 3.498 3.812 4.078 4.303 4.494 4.656 4.793 4.910 5.008 5.092 5.162 5.222	1.547 2.140 2.639 3.058 3.410 3.706 3.954 4.163 4.339 4.486 4.611 4.715 4.802 4.876 4.938 4.990	1.528 2.106 2.589 2.991 3.326 3.605 3.837 4.031 4.192 4.327 4.439 4.533 4.611 4.675 4.730 4.775	1.509 2.074 2.540 2.926 3.245 3.508 3.726 3.905 4.054 4.177 4.278 4.362 4.432 4.489 4.536 4.576	1.492 2.042 2.494 2.864 3.167 3.416 3.619 3.786 3.923 4.035 4.127 4.203 4.265 4.315 4.357 4.391	1.474 2.011 2.448 2.803 3.092 3.327 3.518 3.673 3.799 3.902 3.985 4.053 4.108 4.153 4.189 4.219	1.457 1.981 2.404 2.745 3.020 3.242 3.421 3.566 3.682 3.776 3.851 3.912 3.962 4.001 4.033 4.059

TEST PAPER 11 CTA 4 - DECEMBER 2024

Attempt any four of the five questions

Question 1

(a) The concepts of production and consumption are fundamental components of the microeconomics principle. Their interaction plays a crucial role in the functioning of an economy and the well-being of individuals and firms within the economy. Furthermore, both concepts are essential components of the economic growth and their interface influences the overall trajectory of the economy. The interactions between producers and consumers are also linked to the concept of externalities in the economics.

Required:

(i) Given the above scenario, distinguish between the terms 'production' and 'consumption, in the context of economic growth.

(2 marks)

(ii) Using examples of your choice, illustrate how changes in production levels can impact consumption patterns in an economy.

(6 marks)

(b) Demand forecasting is a critical aspect of business planning and various techniques are available to estimate the future demand of a product. Firms and organisations often use the demand forecasting techniques to make informed decisions about production, inventory, and resource allocation. This ultimately contributes to efficient operations and customer satisfaction.

Required:

As an expert in managerial economics and public finance, explain the different techniques of demand forecasting that organisations often use in managerial decision making.

(10 marks)

(c) A consumer survey carried out in Fort Portal city shows that when consumers' average monthly income increased from Shs 300,000 to Shs 340,000, it resulted in an increase in the number of smartphones demanded from 150 to 185 in a month.

Required:

(i) Calculate the income elasticity of demand for the smartphones

(5 marks)

(ii) Interpret the income elasticity of demand coefficient and with reasons, explain whether the smartphone is a normal good, a luxury good, or an inferior good.

(2 marks)

(Total 25 marks)

Question 2

(a) In the recent past, the government of Uganda provided income support to maize farmers in the country while considering minimum price legislation policy. Such a policy however, affects different stakeholders and also influences market outcomes.

Required:

As an expert in managerial economics and public finance, discuss the possible effect of this policy on the quantity of maize produced and supplied to the market.

(14 marks)

(b) Mr. Kintu operates a maize grain milling plant (firm) in Kapeka Industrial Area. He employs a graduate managerial economist who modeled the firms' total cost function, in Shs, as $TC(q) = 1,000 + 5q + 0.1q^2$ where q is the quantity of maize produced by the firm in kilograms.

Required:

(i) Find the firms' fixed costs.

(2 marks)

(ii) Determine the firms' variable cost and average variable cost functions.

(4 marks)

(c) Capital expenditure reductions are carried out to facilitate the reallocation of resources to more productive areas within an organisation or government-funded project. Disinvestments are primarily motivated by the optimisation of resources to deliver maximum returns. However, it is essential for governments to carefully assess the implications and consequences of disinvestment decisions to make sure that they are aligned with the broader economic and social objectives.

Required:

As a managerial economist and using Uganda as a case study, explain the reasons why a country should carry out disinvestment decisions.

(5 marks)

(Total 25 marks)

Question 3

(a) In practice, policy makers often face the challenge of balancing the goals of achieving rapid economic growth and development, promoting equity and addressing structural imbalances within the economy. The choice between pursuing different growth strategies depends on various factors, namely; the country's stage of development, resource endowments, institutional capacity utilisation and policy objectives.

Required:

As an expert in managerial economics and public finance, explain the different growth strategies that an economy can pursue to support economic growth and development. (6 marks)

(b) Given that an economy can be described as follows;

Consumption (C) = 500 + 0.8Yd

Investment (I) = 200

Government spending (G) = 300

Net exports (NX) = 50 - 0.1Y

where Y represents real GDP, Yd represents disposable income, and NX represents net exports.

Required:

Using your expertise and knowledge;

(i) Define the term 'aggregate demand'. (2 marks)

(ii) Compute the total value of aggregate demand (AD) at an equilibrium level of income for this economy. (4 marks)

(c) With reference to the current Uganda's economic system, discuss the role of the capital market in the development of a nation.

(10 marks)

(Total 25 marks)

Question 4

(a) Following the reading of the budget speech of Financial Year 2023/24, Uganda's tax to gross domestic product (GDP) ratio is currently at 13.9% and according to the World Bank recent press release, Uganda could raise more domestic revenues from taxes to support its development. The report further indicates that, although Uganda's tax system is one of the most modern systems in the region, its revenue collections are far below average of its tax potential. This could partly be blamed on tax avoidance and tax evasion resulting from generous tax exemptions to investors, weak tax administration and a large informal sector. These conditions pose a serious challenge to increasing the tax revenue base.

Required:

As an expert in managerial economics and public finance and using examples;

- (i) Distinguish between tax avoidance and tax evasion. (2 marks)
- (ii) Explain the reasons why Uganda has low taxable capacity (7 marks)
- (b) It is a well-established fact that nations can produce and export goods from which they are uniquely qualified. However, economists state that "there is a deeper principle of comparative advantage which is fundamental to all

trade in a nation and within nations that goes beyond the common knowledge of trade and it provides a fair basis for international trade".

Required:

In relation to the above fact:

(i) Explain the principle and assumptions of comparative advantage.

(7 marks).

(iii) The data below shows the labour requirements for the production of one (1) unit of each good in Uganda and Kenya.

	Labour (hrs)				
Food	Uganda	Kenya			
Clothing	1	3			
	2	4			

Required:

Using Ricardo's principle of comparative advantage, determine which country has a comparative advantage over the other in the production of each good.

(4 marks).

(c) Regional bodies are key actors in international relations. They facilitate cooperation, integration, and conflict resolution among member states. Their formation is anchored on different objectives with each member state focusing on their economic, political, security, and social goals.

Required:

Using the East African Community (E.A.C) as a case study, explain the objectives of such a regional body.

(5 marks) (Total 25 marks)

Question 5

(a) The per capita gross domestic product, as a standard measurement index, is used to evaluate a country's level of development. Indicators of underdeveloped economies typically include a range of economic, social and institutional factors that reflect low levels of economic output.

Required:

As an expert in managerial economics and public finance, explain the common indicators of underdeveloped economies.

(9 marks)

(b) Governments often engage in detailed and sometimes lengthy processes of budget formulation, review and approval involving various branches of

government, stakeholders, and the public. The final budget reflects a balance between competing priorities, political considerations and fiscal constraints. It serves as a key instrument for guiding public spending and revenue collection mechanism to achieve the national objectives and therefore meet the needs of the citizens.

Required:

Using your expertise and knowledge;

(i) Explain the meaning of 'the national budget as an instrument of economic and social policy agenda'.

(2 marks)

(ii) Discuss the components of a national budget.

(14 marks) (Total 25 marks)



Answers

ANSWERS TO TEST PAPER 1 **CTA JUNE 2018**

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Solution One

(a) Profit Maximizing output for the firm Profit Maximizing output is where MR = MC

Total Revenue (TR) = P x Q
=
$$(100,000-2q)q$$

= $100,000q-2q^2$
MR = $\frac{d(TR)}{dQ}$ = $100,000-4q$
 $\frac{dQ}{dQ}$
Total Cost (TC) = $100,000+0.5q^2$
MC = $\frac{d(TC)}{dQ}$ = q
 $\frac{dQ}{dQ}$
MR = MC = $100,000-4q$ = q
 $100,000$ = $5q$

20,000 (Loves of Bread)

(b) Value of total cost for this firm $TC = 100,000 + 0.5q^2$ But q = 20,000Therefore TC = 100,000 + 0.5(400,000,000)TC = 100,000 + 200,000,000TC = 200,100,000/=

(c) Unit price for the product of this firm 100,000 - 2q

But
$$q = 20,000$$

Therefore $P = 100,000 - 2(20,000)$
 $P = (100,000-40,000)$
 $P = 60,000/=$

(d) Amount of profit for this firm

Profit =
$$TR - TC$$

 $TR = P \times Q = 60,000 \times 20,000 = 1,200,000,000/=$
 $TC = 200,100,000/=$
Therefore Profit = 1,200,000,000 - 200,100,000
Profit = 999,900,000/=

- (e) Explain the different policy options that Mr. Kizito can consider in order to increase the profit level of SB.
- Mr. Kizito can consider the implementation of sales promotion like Advertisement to increase the sales of the product and thereby increasing sales of his product which consequently increases the profit level.
- Rebranding the Product can also be used to increase sales and consequently increasing the profit level. Increase in the sales in the market, increases the profit levels of the firm. Rebranding are activities like providing new brand name to the product.
- Enable the customers to think that this is a totally new product. This can be carried out by changing the name of the product, shape of the product, colour of the product e.t.c. The best example here is the different types of Toyota Camry currently available in the market. The differences in the same product can be able to attract different prices and consequently increasing the profit level for the firm.
- Reducing price and hence enhancing sales and thus increase in profit. When
 prices are slightly reduced, customers may think that the product has become
 cheaper and therefore they tend to buy more. The success of this policy
 however depends on the elasticity of demand for such a product.
- Increase the output of the product to be able to sell more. When outputs are
 increased and consequently lowering the price of the product, more of the
 output can be sold in the market and therefore profit can be increased.
- Expand the market of the product by venturing into new markets. Open up new market in the other part of the country or in the other countries. This provides opportunity to sell more of the product in question and consequently profit increases.

Solution Two

(a)

- Level of development. If the country is more developed, the economy expands and the taxable capacity is high and therefore more tax revenue can be realized compared to undeveloped country.
- Structure of the economy. If the structure of the economy indicates more of agricultural economy and even less informal less tax revenue would be realized compared to industrialized economy which is even more formal.
- Liberalization of the economy. If the economy if fully liberalized, it can facilitate the development of private sector led economy which is associated with more profit. This can consequently promote the taxable capacity of the country than having the economy which is more of the public sector led.
- Regional Integration. This can expand the market for the products produced in an economy which consequently increases the profit for the output being exported. Consequently more taxes can be obtained from the profit received from exports.

- Political Consideration. This is concerned with Governance issue like corruption. If there is high level of corruption in the tax system less tax revenue can be realized as most of the tax revenue realized would be swindled through corruption.
- Availability of FDIs in the country. FDIs can set up more investments (like industries) in the country which investments can be able to expand the taxable capacity for the country. Taxes that can be realized from such investments are income taxes, exercise duty and VAT

(b)

- Demand and taste of government services. Increase the demand and taste of government services so that the citizen benefit their taxes. If there is no value from the taxes being paid by the citizen, there can be no incentive to pay taxes.
- Capacities to tax. Increase capacity to tax by venturing into new sources of taxes. For instance taxes on agricultural products, taxes on rentals e.t.c. Ability to impose and collect taxes. Tax system should be strengthening so that there is ability and capacity to impose and collect taxes. Strengthening the tax system may include putting in place enabling laws on taxes, recruiting capable people, sensitization of tax payers' e.t.c.
- Relative use of different tax instruments. Different channels can be used to impose and collect taxes. Having only few channels can limit the taxable capacity of the country.
- Administrative consideration. Poor tax administration can limit taxable capacity of the country. This may include poor management capability which consequently leads to loss of funds being collected. This hinders taxable of the capacity country. Institutional consideration. This can be in form of lack of disclosure of the taxes being collected. In some countries there is weak institutions in place such that taxes are collected and spent at source without having to pass through the channel of administration normal tax Political consideration. This can be observed in Governance issue, Lack of political will in management of taxes can lead to corruption which consequently inhibits the taxable capacity of the country.

(c)

- Affects the length of time an individual stays at school. To avoid tax payment an individual can decide to stay longer at school than expected.
- Affects the choice of a job an individual make. Due to fear of taxation, an individual can decide to choose jobs that attract less or no taxes than the ones that attract more taxes.
- Affects the number of hours an individual works. Because of fear of taxes an
 individual can spend fewer hours on jobs that attract more taxes in order to
 avoid paying these taxes than on jobs that attract more taxes
- Affects an individual's savings. Individuals may fear to save more funds with the fear that his savings would be taxed. Fewer savings however may affect investments and consequently development of the country

 Affects risk taking. Individuals may also fear risk taking with the view that they may be adversely taxed. This consequently affects entrepreneur ability in the country

Solution Three

- (a) This is concerned with the movement of economics variables over time. These economics variables may include, price, output or even inflation, sales, demand e.t.c. The trend projection method is used under the assumption that factors responsible for the past trend in the variables can be projected e.g. sales trends, demand trends.
- (b) Describe any four purpose of carrying out demand forecasting Consider the following
- Planning and scheduling production. This involves on deciding how much to produce, when to produce the output, where will the raw materials come from and for how long will the product stay in store.
- Purchase of raw materials. This involves such questions as, how will the raw materials be supply, who will supply the raw materials and in what quantities will the raw materials be supplied.
- Acquisition of finance. This involves such questions as, how much funds do we need, who or which bank will supply the funding and how will these funds be managed
- Carrying out advertisement. This involves such questions as, how do we carry out advertisement, what type of advertisement should be carried out and who should carry out such advertisement.
- (c) Trend projection method involves the following;
- Graphical Method. This involves use of graphs to forecast the demand for the product. These graphs may include line graph, bar charts/graph e.t.c
- Fitting Trend equation. This involves plotting trends equation and then fitting them with trend line or equation of the line. This plot can thus be used to forecast future demand for the product
- Box-Jenkin Method. This method uses stationary trend data to project or forecast future demand for the firm's product.
- Barometric Method
 - This method may include;
- (a) Leading indicators under this method include those indicators that move up and down ahead of other series e.g. prices, inflation, output e.t.c.
- (b) Coincidental Indicators. These are series that move up and down simultaneously e.g. sales records, unemployment Gross Domestic Product at constant price.
- (c) Lagged indicators. These indicators which changes after some time lag e.g. lending rates.

(d)

Consider the following

- This is the case for a normal good where less is demanded at high prices and more is demanded at high prices (Income effect).
- This may also depend on the marginal utility of the good in question. If the marginal utility is high one is willing to pay more (low of diminishing marginal utility)
- Substitution effect. This involves the price of substitutes. The price of substitute can affect the demand of the product and consequently the shapes of demand curve.

Solution Four

- (a) The budget is the fiscal arm of government and can be used to carry out the following activities;
- Promotes Economic Growth by allocation of resources to sectors that encourage growth of the economy. These sectors may include agricultural sector, industrial sector or service sector
- Stimulate the level of economic activities through reduction of taxes. During budgeting, the government can decide to reduce taxes and this can consequently help in stimulating the level of economic activities through creating more investments and jobs.
- Promote investment by availing more funds in the economy. The government can decide through budgeting to promote investment. This can be carried out by availing more funds to sectors that encourage more investments in the country
- Promote employment of major factors of production like labor. The
 government can decide to promote employment by using the budget to create
 more employment in the country. This can be carried out by providing
 adequate funds to sectors that employ a sizable number of people.
- Increases income of the people. This can be carried out through the increase
 of salaries. The increase of salaries is carried out with the purpose of
 increasing purchasing power of the people.
- (a) Describe Uganda's Budget Process
- The budget process begins with the identification of the needs of the country at the same time sources of revenues that can meet the need. The needs identified are often for Ministries, Departments and Agencies.
- Secondly, the budget process is followed by narrowing down the needs to priorities. These priorities involves identifying sectors are most needed for funding e.g. agricultural sector, industrial sector, service sector e.t.c.
- Budget consultation. This is carried out in order to obtain consensus from the key stalk holders on the priorities. These priorities are submitted to cabinet for scrutiny

- The next step is to focus revenues to priorities. This is carried out when budget framework paper is laid before parliament for consideration and comments.

 Nevertheless, where the resources are not enough for the priorities set by the government then plan for deficit financing (borrow).
- Budget reading. This is the last stage of the budget process. It is a situation where the Ministry of Finance lay the budget before public outlining the course of action for the next fiscal year.

(b)

- Reducing the lending rate in the face of high cost of living (inflation) may lead to the following;
- High rate of borrowing and thus exasperating inflation. Reducing lending rate can lead to more borrowing from the banking sector and thus leading to more money in circulation. High level of consumption. Since there is a lot of money in circulation, there can be high level of consumption of the available goods in the economy and may consequently lead to more investment in the country. Loss of confidence in the economy. Since there is high level of inflation as a result of high borrowing from the banking sector, there can be loss of confidence in the economy and consequently no or fewer FDI may be willing to invest in such a economy.
- Low savings. Since the local currency has lost value due to inflation, there can be low savings in the economy and this can discourage investment and consequently the growth of the economy.
- Low level of investment. Since there is low saving in such economy as a result
 of high level of inflation, there can consequently be low level of investment in
 the country.

Question Five.

(a)

(i) Terms of Trade. Consider the following

> ToT = <u>Index of Export Prices</u> X 100 Index of Import Prices

- (ii) Volume of Trade
 - This is the physical quantities of the amounts of imports and exports. This can be presented in metric tons.
- (iii) Balance of payment.
 This is the summary of trade transactions carried out between one country and another country
- (b) Theory of Comparative Advantage

- According of Comparative advantage, even if a country is less efficient than others in production of both commodities there is still a basis of mutually beneficial trade.
- The 1st nation should specialize in production and export of a commodity in which it absolute disadvantage is smaller (This is the commodity of its comparative advantage) and import the commodity in which it's absolute disadvantage is greater (This is the commodity of its comparative disadvantage).

Illustration

Commodities	Kenya	Uganda
Wheat (bushels per hour)	6	1
Bananas (bundles per	4	2
hour)		

- It can be seen that Uganda is half as productive in bananas but a sixth times less productive in wheat compared to Kenya.
- Thus Uganda has comparative advantage in production of bananas while Kenya has absolute advantage in production of both wheat and bananas.
- But since its absolute advantage is greater in wheat (6:1) than in bananas (4:2) then Kenya has comparative advantage in production of wheat compared to Uganda.
- (c) Suppose that the above trade dealings between Uganda and Kenya in wheat and bananas has changed. The details can be illustrated as follows;

Commodities	Kenya	Uganda
Wheat (bushels per hour)	6	1
Bananas (bundles per hour)	2	4

Consider the following

Theory of Absolute Advantage

- According of Absolute advantage, a country specializes in production and export of a commodity where she has advantage (in absolute terms) in its production.
- In the available illustration, Uganda has absolute advantage in the production of bananas than Kenya because she can produce 4 bundles of bananas per hour than Kenya that produces only 2 bundles of bananas per hour. Thus Uganda has absolute advantage in the production of bananas than Kenya.

Illustration

Commodit	ies		Kenya	Uganda
Wheat (bushels per hour)			6	1
Bananas	(bundles	per	2	4
hour)				

In the same way, Kenya has absolute advantage in the production of wheat than Uganda because she can produce 6 bushels of wheat per hour than Uganda that produces only 1 bushel of wheat per hour. Thus Kenya has absolute advantage in the production of wheat than Uganda

ANSWERS TO TEST PAPER 2 CTA NOVEMBER 2019

Question One

- (a) Explain why the Entebbe Express may lead to more efficient utilization than other free-to-use highways.
 - Better quality road because its privately provided. Entebbe highway, because of its better quality, can lead to efficient utilization of resources than other free to use highways. This is because it promotes faster movements of goods and personals to and from Entebbe airport.
 - Lower rate of depreciation because of exclusion. Since the use of this road is paid for, it leads exclusion of some road users and therefore fewer vehicle can be expected to use this road. This consequently leads to lower rate of depreciation for this highway thus encouraging its durability.
 - Regular maintenance increasing durability. Since the use of this road is paid
 for, funds can be easily mobilised for regular maintenance of the road and
 therefore maintaining its good quality as well as its durability. The easily
 mobilization of the funds for the road maintenance therefore promotes better
 utilization of the highway.
 - Better road services. The Entebbe Express highway has been constructed with better road services than any other roads in the country. Some of these road services include road signs, Zebra crossings, fly overs and pedestrian walk ways. These road services serves to help protect the highway from destruction.
- (b) Using the case above and other relevant examples, distinguish:
 - (i) public goods from private goods
 - Public good: Is non rival in consumption. This means that its consumption by any one individual does not stop others from using it. The public good can also be termed as non-exclusive good its use by any one individual cannot exclude others from using it. Consequently, no extra cost can be incurred by any one or the general public from using the public good.

Whereas

• Private good: Is rival in consumption. This means that it consumption by any one individual can stop others from using it. Private goods can also be termed as exclusive in nature. This is because it requires extra cost for using it. Thus extra cost serves as deterrent for any other individual who intends to use the private good.

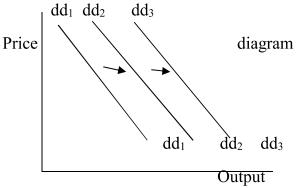
(ii) Marginal Cost and Variable Cost

Marginal Cost (MC) – This is a cost incurred arising from production of an extra unit of output. Marginal Cost (MC) can be calculated as change in total cost resulting from a unit change in output = $\frac{Change\ in\ total\ costs}{change\ in\ output} = \frac{\Delta TC}{\Delta Q}$ whereas Variable Cost (VC) – This is the cost that varies with the level of outputs. When the level of output increases it also increases and when the level of output falls it also falls. Variable Cost (VC) of a firm may include

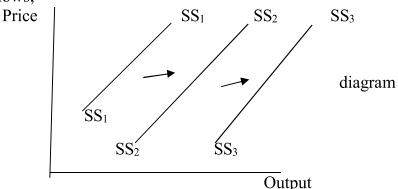
cost of raw materials, salaries and wages, utilities (water and electricity) and transportation cost to sales points.

(iii) Aggregate Demand (ADD) and Aggregate Supply(ASS)

- Aggregate Demand: This summation of all individual demand curves of consumers in the market. For example, Aggregate Demand can be presented numerically as follows = $dd_1 + dd_2 + dd_3 + \dots + dd_n$.
- In a diagrammatical form, aggregate demand curve can be presented as follows;



- Aggregate Supply (SS): This is the summation of all individual supply curves of firms in the industry. Aggregate Supply can be presented numerically as follows; $= SS_1 + SS_2 + SS_3 + \dots + SS_n$.
- In a diagrammatical form, aggregate supply curve can be presented as follows:



- (c) Explain the factors that should be the major focus of government of Uganda in improving the welfare of its citizen.
 - Good Governance: The government of Uganda should focus on eliminating corruption in the public institutions in order to improve the welfare of its citizen. Corruption often eats up the available funds that are intended for investments in the public goods. These funds however, are stole by unscrupulous individuals who just waste them in unproductive ventures. The government should therefore curb corruption in order to recover funds intended for investment in the public goods and this can help to enhance the welfare of its citizen.

- Improve on service delivery: The government of Uganda should improve on service delivery in the public service in order to improve of the welfare of its citizen. It should be realised that service delivery in public service is virtually very poor in Uganda and no one bothers to improve it. The government of Uganda should therefore invest in public service delivery in order to improve on the welfare of its citizen.
- Climate Change: It is a very critical issue in Uganda since the citizens of the country rely basically on weather condition for their survival. This climate change is being experienced due to environmental degradation. The government should therefore come up with good policies in order to regulate environmental degradation in the country and consequently improving the welfare of its citizen.
- Debt sustainability: There is currently over borrowing of funds from developed countries but with no prospect in sight to pay the borrowed funds. Some of these funds however, are invested in the projects that do not promote the growth of the country and consequently promoting the welfare of its citizen. Borrowing however, is not a bad idea, the only problem is how the borrowed funds are used.

Question Two

(a)

- (i) **Sample Survey Method:** Under this method only a few potential customers and users of the product are selected from the relevant market using a sampling method. The method of survey here is direct interview or mailed questionnaire. This method is simple, less costly and less time consuming
- (ii) **Statistical Method:** This method uses time series and cross sectional data for estimating long term demand. Statistical methods are considered to be superior technique of demand forecasting. The method basically includes; Trend projection, Barometric method and Econometric method.
- (iii) **Barometric Forecasting:** Many economists use economic indicators that work like a barometer to forecast trends in economic activities. A barometer is basically an instrument which is used to measure weather performance and this idea is borrowed by the economists to estimate performance/trends in the economic activities.
 - This method can also be used to estimate demand prospects for a product but not the actual quantity of commodity expected to be demanded by consumers.
- (iv) **Trend Projection Method:** This method is essentially concerned with the study of movements of variables through time. The use of this method requires long and reliable time series data. This method requires the use of Graph, fitting trend equation, and Box-Jenkins method.

(a) Describe the stages involved in the End-use method of demand forecasting. The end use method of demand forecasting is very important in forecasting the demand for inputs. One need to build a schedule of probable aggregate future demand for inputs by consuming industries and other sectors taking into accounts technological changes, structural changes and other changes that influences demand. The stages involved in the End-Use Method of Demand Forecasting can be presented as follows;

Stage 1: In the first stage, there is need for one to identify and list all users of the product in question. That is Managers should use their intuition to understand the product incase data is not available.

Stage 2: In the second stage, there is need to fix suitable technical norms of consumption of the product in question. These norms are technical specification of the product in question. The technical norms of the product may include attributes like efficiency use of the product

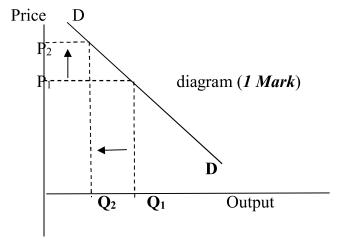
Stage 3: The third stage is to apply the technical norms of the product in question. The application of the technical norms of the product may be based on your application of the desired level of output

Stage 4: The fourth stage is to aggregate the product in question. The aggregation of the product in this context can only be carried out product wise or even use wise. The product wise and use wise method of aggregation is basically based on the content of the item for which demand is being forecasted.

(b) Considering the Sawa bread as a normal good and with an illustration, explain what happens to the demand for the bread (sawa) when its price increases.

If the Sawa bread is a normal good, the demand for Sawa bread would reduce if its price increases. This is because the demand for normal goods increases if its price reduces at the same time it reduces if its prices increases

In the figure below the demand for Sawa bread reduces from Q_1 to Q_2 when its price increases from P_1 to P_2 . This is because normal goods have close substitute. The best examples of normal goods are beans, rice, cassava and others.



Question 3

The Uganda National Budget 2018/19FY suggested a number of tax reforms including increase of excise duty on bank charges and mobile money transfers.

a) Using appropriate examples demonstrate how such tax increases may be used by government to achieve:

Economic Growth

Idle savings from commercial banks: High taxes can be imposed on the idle savings in the commercial banks so that the savers are encourage to withdraw the idle savings from the bank and then invest them in profitable investment. Such investments can produce more goods and therefore promoting economic growth. Secondly, more investment in the country can help employ excess labor force in the country and thus reducing unemployment burden.

Discourage mobile gaming and gambling: High taxes can also help to discourage mobile gamming and gambling. It should be noted that mobile gamming like face book and twitter may promote gossiping in the country and consequently encouraging idleness and disorderly. Time which should have been used on other productive work would be spent on gossiping. Thus this tax has been put in place to discourage idleness but also to encourage hard work.

High revenues are invested in social services. The taxes that are imposed on the mobile money transfer can help to boost the domestic revenue which would consequently be used to fund government activities. It should be realised that government revenue in Uganda always falls short of government expenditures. Thus this tax is important as it helps to bridge the government budget deficit.

High imports: High taxes can also be used to discourage high importation of foreign goods. It should be realised that Uganda is a high import country, so the imposition of high taxes on foreign goods can discourages the importation of these goods and therefore encouraging the citizen to turn to domestic goods

(i) Income redistribution

High taxes can be used to mobilize funds which funds will be used to fund education, thus making it affordable to the poor. Education is a social service that can help to redistribute income from the poor to the rich if the funds from taxes are used to educate the children of the poor who will be able to obtain employment opportunities in the public sector.

Make healthcare less expensive to the poor. Income from taxes can be used to subsidize the health care system in the country so that the poor can be able to access these services cheaply. It should be realised that expensive healthcare system when it is not subsidized can make the poor poorer and the richer and thus promoting high income gap in the country.

Support agricultural production. It should be realised that most agricultural activities in Uganda are engaged in by the poor. Implementing high taxes on the rich and then subsidizing agricultural production in the country can be able to redistribute income from the rich to the poor. This can therefore be able to lift the poor out of poverty.

Provide physical infrastructure. Imposing high taxes on the rich can help to mobilize funds which can be used to finance physical infrastructure in the country. It is important to note that implementing such a policy can ease pressure on the government from borrowing foreign funds to finance physical infrastructure. Thus the government will use the local resources to finance physical infrastructure.

High taxes on goods for the rich reduces tax burden on the incomes of the poor. The government can impose high taxes on the goods that are always consumed by the rich and use the proceeds from such taxes to finance goods that are often consumed by the poor. This can therefore help to redistribute income from the rich to the poor.

(ii) Poverty Reduction

Investment on public corporation for job creation. The government can impose high taxes on the rich in order to mobilize the most needed funds for investment. Increased investment in the country can be in position to jobs in the country. The job created by the new investment in the country can be in position to reduce poverty in the country.

Provision on financial support to projects that support the poor. High taxes can be in position to mobilize funds which funds can be used to finance projects that benefit the poor. The projects that benefit the poor may include provision of access roads, provision of electricity and opening up of new water sources. Such projects can benefits the poor through improving sanitation, promoting economic activities and promotion of access to various places.

Make education more affordable to the poor. Making education more affordable to the poor can help them to come out of poverty. Accessibility of education by the poor enable them to acquire the required skills and knowledge which can enable them to obtain jobs and therefore earn income which consequently improve their economic wellbeing.

Impose high taxes on goods and services that are consumed by the rich and thereafter, the funds received from the high taxes can be used to subsidies the purchases of the poor. Such activity can reduce tax burden on the poor which consequently can easily pull them out of poverty.

(b) Explain the effects of a tax increase on consumer behavior.

Consumer response to tax increase in the following ways;

- (i) *Income Effect:* Tax increase increases the price of the products that consumers always purchase and therefore reducing the welfare of consumers. It is important to note that increase in taxes on the goods and services that are often purchased by consumers reduces their income by the amount of the tax while their cost of living increases.
- (ii) **Substitution Effect:** Once the products whose high taxes have been imposed up on increase their prices, consumers of such products may switch their purchases from such products to other substitute products whose tax rate has remained constant and their prices have not increased.
- (iii) *Price Effect*: High taxes on the products that are on the market often increase their prices. The price effect therefore encourages consumers to shift their purchases from such products to products whose prices have not increased.

Question Four

(i) Allocation

- Allocation of resources is providing funding to those sectors that originally do not have them. This can be carried out through budget allocation, tax exemption, financial support as well as quota allocations. The details of which are indicated below.
- Budgetary allocations: This provision of funding to any sector of the economy through the budget. A budget is a financial plan with its corresponding activities which are intended to be accomplished within a given period of time, usually one year. Budgetary allocation is often a support by government to all sectors of the economy often within a period of time.
- Tax exemptions: The government can also give support to any sector of the economy of even a project through tax exemption. This often happens when such sector is not performing well. Tax exemption is a form of support that the government often offer to a struggling sector. The intention of such support is for such a sector to stabilize and consequently start performing well.
- Financial support and Quota allocations: This is also one way in which the government can support any sector or project in the economy. Financial support can be other form of funding which are often outside the budget allocation. Such support can be in the form of supplementary funding. Quota funding however is the kind of funding which is in form of ration or allowance to support a sector or a project.

- (ii) Distribution: Distribution of resources can be carried out through deliberate tax reforms, equity budgeting, tax exemption, fiscal discipline and funding for social protection projects. The details are indicated below;
- Deliberate tax reforms: Government distributes resources in the economy through the use of tax system. Progressive taxation is used to remove money from the rich which funds can be used to support the poor. Regressive tax on the other hand are imposed on the poor and they are non-aggressive in nature.
- Equity budgeting: The aim of Equity budgeting is to provide funding to the sector which is perceived to be marginalized. Equity budgeting is therefore intended to provide funding to such sector through the budgetary system. The equity budgeting simply means that all sectors should be treated equally.
- Tax exemptions: Tax exemption is also intended to distribute resources to a struggling sector/project by relieving them from the tax system. The tax exemption is intended to free resources to the sector which is struggling by exempting them from tax payment.
- Social protection projects: These are projects intended to distribute resources in the economy. Such projects are often started to assist the vulnerable communities to come out of poverty. These projects are initiated in communities that suffered greatly from natural disasters and war.
- (iii) Stabilisation
- The government can stabilize the economy through the use of tax policy and public expenditure policy. The details are indicated below.
- **Progressive tax policy**: When there is excessive money in circulation, the government can impose progressive tax in order to withdraw the excess supply of money in the economy. The progressive tax system therefore stabilizes the economy by withdrawing the excess supply of money from the economy. This tax instrument helps to stabilize the economy suffering from inflation.
- Regressive tax policy: The government can also employ regressive tax policy if it intends to stabilize the economy. Regressive tax policy is used when there is less money in circulation and the government therefore want to keep the majority of tax payer with a lot of money at hand. This tax instrument thus help in stabilizing the economy which is suffering from stagflation.
- **Public expenditure policy:** When there is excessive money in the economy, the government can reduce on the releases of the money in the budget to curb inflation. When however, there is no money in the economy the government through its expenditure policy can increase money in circulation.
- The use of tools of monetary policy: The government through the central bank can affect the tool of monetary policy either to reduce or increase money supply in the economy. The tools of monetary policy are Open Market Operation, Moral Suasion, and Bank Rate. These tools therefore stabilizes the economy.

(b) Describe the role of government in economic development

- Stabilize macro-economic stability for private sector: The government can provide macroeconomic stability in the economy through the use of the tools of monetary policy. This tool is often used depending on the state of the economy. When there is excessive money in circulation the government uses contractionary monetary policy and when there is little money in circulation the government uses expansionary monetary policy.
- Provision of physical infrastructure: The government through it budgetary system provide infrastructure for her citizen. This infrastructure includes; roads, railways, airlines and water transport. The government also provide economic infrastructure to her citizens. These infrastructure include industries, mining and stone quarrying.
- Provision of education for skills and better knowledge base: The government can also provide education for skill development. It can engage in man power planning in order to determine the type and the kind of skills needed in the economy. The government can build schools in all region of the country in order to promote regional balance in the country.
- Peace and security: the government can promote peace and security in the country through maintenance of law and order in the country. The peace and security is therefore effected through the use of state machinery.
- **(c)** Fiscal instrument in this case refer to the budget. The budget however, is funded locally through taxes.
- Stimulate investment in productive sectors of the economy: Taxes can be used to stimulate investment in the major sectors of the economy. The government can use taxes to enough allocation of some industries in the country. For instance the government can provide tax exemption to the industries in which it is encouraging its set up.
- Stabilise the Economy: Fiscal instrument can also be used to stabilize the economy. The government can impose progressive taxes when it want to reduce the amount of money in circulation or it can use regressive tax when there is stagflation in the economy and thereby stabilizing the economy and thus encouraging economic growth.
- The government may also use expenditure policy to encourage economic growth. This done by providing adequate funding to sectors that can drive economic growth in the country. These sectors may include agricultural sector, industrial sector infrastructure and health sector. Other sectors like public administration can on waste resources that are most needed for development.
- Increase employment: Both expenditure policy and Tax policy can be used to increase employment opportunities in the country. Expenditure policy can be used to provide the necessary fundings which can be used to set up industries which industries can promote increase in employment and thus increasing

aggregate demand as well as economic growth in the country. The tax policy can also provide tax incentive to industries providing employment opportunities to the citizen of a country. This can increase aggregate demand in the country and thus promoting economic growth.

Ouestion Five

- (a) Discuss effect of progressive tax on consumer behavior
- Progressive tax reduces consumers in come by the amount of the tax being imposed. Basically, progressive tax has the following effects on consumer's behaviors:
- It affects the number of hours an individual works. This especially true if consumers are paid per hour. In this case therefore the more hours an individual works, the more taxes he or she pays.
- It affects the choice of job an individual make. This is especially true with the jobs that over taxed. In this case therefore a consumer would tend to avoid the over tax job in order to avoid paying more taxes.
- It affects individual's savings. This is true in the case where taxes are levied on the savings of individuals. In this case therefore individuals will tend to avoid accumulation of more savings in order to avoid paying more taxes.
- It affect risk taking. This is especially true with economic venture which is expected to earn more income to the under taker. In this case individuals would avoid taking such risk in order to avoid paying more taxes.
- (b) Explain possible sources government revenues Sources of government revenues are many. Below are some of them;
- Taxes: These are taxes levied on individuals, companies and entities. The main objective of taxes is to raise government revenue to fund government expenditures. There basically two main categories of taxes. That is progressive taxes and regressive taxes.
- Fees: These are special payments made towards the use of government properties. For instance; the use of Government Park may attract some fees, the use of government road may attract some fees and even receiving services from government hospital may also attract some fees.
- Deficit financing: Government may receive funding through deficit financing. The government may deliberately plan for a deficit in order to mobilize fundings to finance such deficit. A deficit may be financed through printing money, borrowing or selling reserve.
- Gifts and Grants: The government may also receive gifts and grants from international donors in order to finance its activities. The gifts and grants may be received from multinational or bilateral donors.
- Fines: The government can also receive income from fines. The fines are basically penalties put on law breakers. The penalties are especially carried out by courts of low.

• Proceeds from commercial ventures: The government can also receive income from commercial ventures being under taken by the government. These commercial ventures may include exports which are being carried out by the government and other incomes from government properties.

(c) Discuss the principles of a good tax.

- Economic efficiency: This principle states that the tax system should not interfere with the efficient allocation of resources in the economy. A tax system which interfere with the efficient allocation of resources in the economy is not efficient.
- Administrative simplicity: A good tax system should not be expensive to administer. Normally administrative cost of any tax system should not exceed five percent of the total income received for the tax.
- Flexibility: A good tax system should respond easily and automatically to changes in the economic circumstances in the country. Any tax system which is rigid does not serve the purpose of being a good tax system.
- Fairness (Horizontal and Vertical equity): Horizontal fairness states that individuals who are the same in all respects should be treated equally in terms of taxes. Vertical equity on the other hand states that some individuals who are in better position to pay more taxes should be able to do so.
- Political Responsibility: This principle states that the Government (Tax collectors) should not try to take advantage of an uninformed citizens.
- Equity principle.
- Principle of certainty
- Principle of convenience
- Principle of economy
- Principle of productivity
- Principle of elasticity
- Principle of simplicity
- Principle of flexibility
- Principle of Neutrality
- Principle of acceptability

ANSWERS TO TEST PAPER 3 CTA MAY 2019

Question 1

(a)

(i) Average Propensity to Save and Marginal Propensity to Save.

APS is the ratio of savings to total income earned by an economic agent.

Expressed as APS =
$$\frac{\text{Savings of an economic agent (S)}}{totalincomeearne (Y)}$$
$$= \frac{S}{Y}$$

It is also a proportion of income not consumed for every unit of income earned by an individual or enterprise.

Whereas

MPS is the ratio of the change in savings for every unit change in income.

Expressed as MPS =
$$\frac{\text{Change in sabings } (\Delta S)}{\text{Change inincome } (\Delta Y)}$$

$$MPS = \frac{\Delta S}{\Delta Y}$$

It is also the rate of change of APS as income changes.

(ii) Gross domestic product and gross national product.

Gross Domestic Product (GDP) is the total monetary value of goods and services produced by nationals within a country in a year.

Whereas Gross National Income is the total monetary value of goods and services produced by within the boundaries of a country in a year. The higher the monetary value, the higher the GNP.

- (b) Discuss any major factors affecting private savings in Uganda.
 - (i) Prevailing inflation rates in the economy.

 Inflation refers to the rate at which a given currency is losing value. When the inflation rate is high, individuals are discouraged from savings because over time there savings are eroded and hence affecting total private savings in the economy.
 - (ii) Tax policy

Tax policy adopted by economic authorities may either encourage or discourage private savings. Any form tax on savings discourages private savings whereas tax incentives on savings may encourage savings other factors held constant.

(iii) Access to saving facilities

Easy access to saving facilities such as SACCOs, VSLs, micro-finance institutions; mobile banking and commercial banks improves private as opposed to poor access and availability of saving facilities.

(iv) Costs associated with private savings

Other factors constant, when the cost of maintaining savings is low and affordable, individuals are attracted to save as opposed to when the cost of saving is rather high.

(v) General level of incomes.

The proportion of income saved tends to increase as one's income increases. Higher household incomes tend to translate into higher private

- savings and lower household incomes are associated with lower private savings.
- (vi) Macro-economic stability. When the macro-economic aggregates are stable and fairly predictable and there is certainty in the future, private savings are not threatened by economic risks. Therefore individuals are comfortable to saveleading to improved private savings in the economy.
- (vii) Availability of investment opportunities. Presence of lucrative investments opportunities encourages private savings because private savings constitute investment finance through banking system.
- (viii) Level of development.

 Developed economies tend to have higher savings than less developed and highly indebted economies.
- (ix) Public expenditure on social services.

 Public investment in social services such as healthcare, education and public results in lower cost of accessing the services by citizens, and the amount not spent may constitute private savings.
- (x) Level of industrialization Other factors constants, countries that are highly industrialized and produce their own capital and consumer products tend to spend less on imported goods, highly employment and hence better national reserves and private savings.
- (c) Every year Ministry Finance, Planning and economic Development takes lead on the National budgeting process. Briefly explain the objectives the national budgeting process.

Budget is a statement of projected incomes and expenditures for a given financial year.

- i. Budgeting facilitates identification of priority sectors of the economy to which resources should be allocated.
- ii. Budgeting is undertaken to keep track and consistent funding to longterm development objectives.
- iii. The process is characterized by negotiation and justification for funding. Through the negotiations process, programmes with high social benefits are identified for funding.
- iv. Budget estimates are always accompanied by ministerial policy statement which provides a schedule of activities to be implemented. This forms firm basis for demanding for accountability of funds disbursement in the budget.
- v. A deficit budget is used to mobilize for additional funding from development partners.
- vi. Through the budgeting process, new and emerging issue can be mainstreamed in annual work plans and funded.

- vii. Budgeting may be used as emancipation process to achieve gender and equity for marginalised sections of society as youth, young, elderly and minority ethnicities.
- viii. Mobilise support to local administration units.
- ix. Budgeting is a channel through which government can implement fiscal policies.

Question 2

(a)

- (i) Terms of trade are the ration of the price index of exports to the price index of imports while terms of trade is the arrangements towards settlement of debts or trade transactions such as cash, credit periods and barter exchange.
- (ii) Volume of Trade and Value of trade
 - Volume is the quantity in kilogrammes/tones being traded between countries whilevalue of trade refer to the monetary value of goods being imported or exported.
- (b) Discuss major factors that may have contributed to Uganda's Balance of Payment surplus.
 - Balance of payment is the difference between how much (in USD) a country spent on imports and what it earned (in USD) from exports in a given calendar year.
 - Changes in the volume of goods and services exported from and imported into Uganda within a year. Holding the prices and product range constant an increase in the volume of goods improves the balance of Payment position.
 - Holding the volume of goods constant, an increase in the prices of goods increases the value of trade and leads to better balance of Payment position and vice versa.
 - Trade policy. Presence of good trade policy and its proper implementationmay lead to BOP surpluses. Trade policies such as import substitution and export oriented may lead to favorable balance or unfavorable trade balance hence affecting the Balance of Payment position.
 - Trade diversion/agreement. These are trade agreements/treaties with specific trading partners whether or not the trading partners are high cost sources.
 - Trade creation. Trade agreements that result into cheaper sources of goods. Trade circulation therefore is associated with improved balance of payment position.
 - Changes in weather and climatic conditions. Uganda's exports are predominantly unprocessed agricultural commodities changes in weather and climate affected production hence affecting Balance of Payment position.
 - Political instability and civil strikes. Tourism sector is an emerging sector that earns Uganda foreign exchange. The sector earning are affected by

instability arising from the poor political and undemocratic governance in the country.

(c) The structural adjustment programme (SAP) was introduced in Uganda by the World Bank and IMF in the 1990s to reduce government role in the economy. This programme assumed that market would function efficiently under the private sector led economy.

Explain instances where the market may not be relied upon to provide of goods and services.

- 1. The market may not be relied upon to provide goods/services whose consumption is non-exclusive such infrastructure security and education.
- 2. Where the period of investment is too long, then such goods may not be provided by the private sector such goods may include, investment in railway system.
- 3. Where the investment is deemed too expensive and therefore not affordable or does not compare favorably with other investment.
- 4. When the products confer higher social welfare than private welfare such as improve air quality and exclusion private consumption is difficult, then provision of products may not be realized.
- 5. Market is said to fail because the pricing of private goods do not adequately take into account social costs incurred in availing those goods e.g. the pollution environmental degradation and destruction in ecological diversity.
- 6. Goods and services in the sensitive sector such as national security and intelligence services cannot be entrusted to the private sector to provide.

Question 3

(a) The Parliamentary committee on the National Economy discussed the possibility of liberalization of the Pension Sector. Once passed, workers shall have the liberty to choose managers of their pensions. The proponents of liberal pension sector believe workers stand to gain higher returns on their contributions once the pension sector is liberalised. The opponents of pension liberalisation on the other hand, contend that the current monopolyhas provided safety for the funds since it is a government organisation.

Explain the characteristics of the following market structures in relation to pension management regimes suggested above.

- (i) Perfectly competitive market. Perfectly competitive market structure is where there are many buyers and many sellers with perfect information on market operations. There is no dominant service provider and interest payable is purely determined by market forces. This is an idealistic market structure.
- (ii) A liberalised pension sector is a form competitive market since there will be many service providers and many contributors andunrestricted transfer from one service provider to another similar to free exit and entry.
- (iii) The contributors/service providers are expected to have perfect information in the pension sector.

- (iv) Limited government intervention to contributors. Government remains on the regulation role.
- (v) There are homogenous products which is the retirements benefits.

 Service providers and contributors are free to join and exit the industry as they wish. There are no barriers to entry and exit.
- (vi) Characterised by massive advertising and sales promotions to gain clientele.

Monopoly market

This is the current market structure that is prevailing in the pension industry now. There is only one mandatory service provider by law.

- (i) There is blocked entry into pension industry by law.
- (ii) There is a heavy government involvement especially in setting the minimum contrition rates and on terms of receiving the retirement benefits.
- (iii) There is information asymmetry; where the service provider has more information and yet contributors have minimal information on market operations such as information on how interest rates are determined.
- (iv) In the previous years, the contributor were prone to exploitation with very low interest payment and difficult in receiving retirement benefits.

Oligopoly Market

This is a market with few large service providers supplying differentiated products to many contributors in the pensions sectors. This will be the actual market once the pension sector is liberalized due to the stringent laws regulating the pension sector.

- (i) There is one market leader and a number of followers. The followers take their decisions and actions on the basis of the actions taken by the market leader.
- (ii) This market structure is based strategic behaviors of firms based on price and quantity of output.
- (iii) Firms in this market structure are price makers and not consumers are price takers.
- (iv) The products provided under this market are differentiated. As such , there is consumer loyalty compared to perfectly competitive market structure.
- (v) There is information asymmetry among consumers on the market operations.
- (b) The National Planning Authority is reviewing the performance of the National Development Plan II. Outline and discuss at least 4 national investment priorities under the NDPII.

(i) Oil and gas sub-sector

Companies have been licensed to conduct oil exploration policies and financing are being put in place to construct an oil refinery and associated pipeline infrastructure.

(ii) Infrastructure development

Roads construction is under way to link oil fields to refineries and to markets. The standard gauge railway and land reform are part of the plans to make different parts accessible.

- (ii) **Tourism.** Tourism sub-sector is one of the fastest growing service sector. Under the WDP II expansion of the National Airport and construction of airfields in the tourist sites have been provided.
- (iii) **ICT and innovation.** Policies have been taken to increase penetration of ICT services provisions have been made for HI-tech cities and associated ICT infrastructure necessary human resource capital to support a middle income economy. Theoretical curriculum has been reviewed to introduction vocation component.

Question 4

- (a) Background to the Budget for FY 2017/18 indicated that Uganda's economy grew by over 4.5 per cent.
 - (i) Differentiate between monetary policy and fiscal policy
 Monetary policy is the management of the demand and supply of money using
 interest rates or other tools in order to influence the level of economic activities.

 -This policy is used by Central Bank to achieve stability of inflation, lending rates
 and exchange rates.

Whereas

Fiscal policy involves taxation and budgets (government borrowing and expenditures). This policy is managed by Ministry of Finance, Planning and Economic Development. Objective fiscal is redistribution, allocation and resource mobilization.

- (ii) Explain at least six (6) macro-economic indicators for economic performance
- (i) Inflation is the rate at which a given currency loses value per year. Mild inflation is deemed to be a good indicator of economic performance. However, hyper-inflation is a signal of macro-economic instability. This creates risk on savings and investments.
- (ii) **Balance of payment**.Balance of Payment is the difference between a country's proceeds from exports and expenditure on imports in a given year. When proceeds exceed the expenditure on imports, a country is said to have a balance of payment surplus and a balance of payment when proceeds are less than expenditure. A persistent Balance of Payment surplus is a good indicator of economic performance.
- (iii) **National income**. National income is the total monetary value of goods and services produced by nationals within a country in a year. The higher the monetary value, the better the economic performance.
- (iv) **Unemployment.** Unemployment refers to the number of individuals in an economy that are able and willing to work at the prevailing wage rates but cannot find work. Unemployment indicator is measured by the

percentage of individuals that cannot find work out of the entire population in the country lower unemployment rates are an indicator of good economic performance.

- **Exchange rate.** Is the number of units of any given currency that can be exchanged for a unit of a hard currency. They are 2 types of exchange rates: floating and fixed exchange rate. A fixed forex is determined by the monetary authorities in an economy whereas a floating forex is determined by demand and supply forces arising from economic activities. Low exchange rate is an indicator of good economic performance.
- **(vi) Aggregate demand.** Aggregate demand is the summation of quantities demanded by all households in an economy. High aggregate demand is associated with high income societies and also stimulates industrialization and reduces unemployment.
- (b) Explain the reason why per capita GDP may be inappropriate for compensation of individuals welfare between countries

1 Size of non-monetary sector

GDP uses numeric indicators of prices and quantities demanded in the formal market transactions. The indicators may miss out on the market transactions in the informal sector and subsistence/rural economy which may not be captured in the national statistics.

2 Transport costs

Transport costs faced by landlocked countries generally raise the total value of the goods/services which may translate into increased GDP whereas there is no difference in utility or welfare enjoyed by nationals near ocean ports.

- 3 GDP indicator is inadequate because it only captures the quantitative value ignoring the quality of products.
- 4 Products not related to welfare GDP considers all output yet some of the output may not directly contribute to individuals welfare or some output such as cigarettes and drugs have adverse effects on welfare.
- Income Gaps. High GDP indicator may exist amidst wide income gap between amidst wide income gap between a few rich and the majority poor individuals in a country. In that incase welfare is enjoyed by a few while the majority lack the basics to survive.
- 6. Human Rights Violation
 High GDP indicator may be registered in the midst of high oppression and violation of human rights of citizens.

Question 5

- (a) Bank of Uganda Annual Financial of 2017/18 indicates that a large section of Uganda's population prefer to hold money in cash other than in other financial portfolios. Given the above scenarios, explain the following terms.
 - (i) Treasury bill. TB is a financial instrument used by the central bank to mobilize financial resources from the public. Sometimes called an interest bearing security. TBs are categorized into 91-day, 182-day and 364-day.
 - (i) Unit Trust. Unit Trust comprises of a pool of financial resources from individual investors and managed by a professional fund manager who invests on behalf of the investors. The unit trust comprises of fund manager, custodian and regulator. Examples of unit trusts include ICEA and UAP
- (b) Explain how monetary policy may be used to maintain macro-economic stability
 - 1. Bank rate

Bank rate is the interest rate at which commercial banks borrow money from the central bank. When the central bank (CB) wishes to reduce money in circulation; it raise the bank rate and vice versa if it wishes to increase liquidity.

2. Open-Market Operation (OMP)

OMP refers to buying and selling of treasury bills (TB) mop-up excess liquidity in circulation. To reduce excess liquidity the CB increases the TB rates and agents are expected to purchase more TB and hence reduction of money in circulation.

3. Selective credit control

The CB may give directives to commercial banks to give or withhold credit to or from certain some sectors of the economy to regulate money supply.

4. Legal Reserve ratio (LRR)

LRR is the amount of mandatory deposit that commercial banks are required to maintain at the CB. To reduce money supply the CB raises the reserve ratio and to increase money supply the CB reduces the reserve ratio.

5. Moral suasion

Moral suasion may use soft approaches such as appeals to commercial bank to implement certain activities (lending) to help the CB achieve given monetary policy objectives.

(c) Discuss any three (3) fiscal policy instruments utilised by government to achieve the re-distribution, allocation and resource mobilization functions.

Taxation

A tax is a proportion of income taken away by government from income earners to fund provision of social services. Progressive taxes can be used to achieve the re-distribution. Under this the wealthier persons pay more taxes compared to the poorer persons. Tax collected is used to invest in social services that subsidise the poor. Taxes on consumption and investments can be used to reduce the consumption/investment in socially beneficial sectors. Taxes are the main avenue of resource mobilization for countries.

Budget

A budget is a statement of the expected revenues and planned expenditures in a financial year.

Re-distribution

Through the budget process, deserving sectors are identified and funds are transferred to the sectors with high need and yet previously underfunded. This is done through regional balancing, gender and Equity Budgeting.

Allocation

The principle objective of budget is allocation of resources among all the programmes in the central and local government. This process gives rise to the budget estimates.

Resource mobilisation

A deficit budget may be used as a tool to mobilize resources internally or from development partners.

Government expenditure

Government spends funds in provision of social services and long term development projects.

Re-distribution

Government expenditure may be directed towards achieving equity and fairies by deliberately investing in social services in under -served regions or under-developed districts.

Allocation

Government allocates funds to both local government and central government programmes to achieve development objectives. Due to resource constraint, priority areas are identified and funds allocated to those priorities

Resource mobilization

Government expenditure may also be used to stimulate mobilization of more resources for instance in setting up co-operative societies.

ANSWERS TO TEST PAPER 4 CTA NOVEMBER 2019

Solutions

Question 1

- (a) (i) Explain the different means of competition that Mivumba Limited can employ.
 - Price. This is an instrument of competition. A reduction in price by a firm can be used to out competing other firms and therefore leading to more sales. Price increase on the other hand can lead to fewer goods to be sold in a competitive market.
 - Advertisement. This is another means of competition. It can either be informative of persuasive. It main purpose is however to made the availability of goods known to consumers.
 - Product. This is also anther means of competition by firms. Reduction in the production on an essential good may be intended to reduce the price of this commodity and therefore exploit consumers. Increase in production of such commodity however can lead to reduction to it price.
 - Place. This looks at how convenient the place/ market is for consumers to access and the distribution network for the product.
- (ii) Discuss any five ways in which profit can be increased in Mivumba Limited
 - New Method of Production. An efficient method of production which reduces cost of production can increase profit in a firm.
 - New source of raw material. New source of raw material which reduces the cost of production can as well increase profit.
 - Diversification. Introducing new commodity in the production line can be able to reduce risk available to the firm and can as well earn additional income for the firm.
 - New quality. The introduction of new quality in the production line can fetch more revenue to the firm if such quality is liked by consumers.
 - Advertisement. Creating awareness to the products of the firm through advertisement can increase more profit if the awareness created leads to positive response by consumers.

(b)

- Government interference leading to poor management practices; interference in most of the decisions to be made by the enterprise.
- It is full of losses because of inefficiency. An enterprise that has been making losses over the years.
- It is associated much debt. An enterprise that has been in so much debt especially due to high expenditure patterns over time.
- Lack of close supervision by both management and the state.
- Poor economic situation in terms of the economic policies like taxation.
- Non-productive and unmotivated labour force especially those that are underpaid yet over worked.
- Low capacity utilization of the resources available.

Question 2

(i) Compute the equilibrium price and quantity of the confectionary

Given Qd =
$$360,000 - 40P$$
 and Qs = $-120,000 + 120P$
At equilibrium Qd = Qs
Thus, $360,000 - 40P = -120,000 + 120P$
= $360,000 + 120,000 = 120P + 40P$
= $480,000 = 160P$
= $P = 480,000$

P = 3,000. Therefore the equilibrium price of the confectionary is Shs 3,000

Given
$$Qd = 360,000 - 40P$$

But $P = 3,000$
Therefore $Qd = 360,000 - 40(3,000)$
 $= 360,000 - 120,000$

Qd = 240,000. Therefore the quantity demanded of the confectionary at Shs.3,000 is 240,000.

(ii) Assuming that a =1,000,000 and b = 5. Compute the amount of output when price P is Shs 4,000.

Given
$$Qd = a - bP$$
. But $a = 1,000,000$ and $b = 5$
Then $Qd = 1,000,000 - 5P$
 $Qd = 1,000,000 - (5*4,000) = 980,000$

(iii)

- Increased tax on the confectionary. This can reduce the demand for products since it affects the price directly.
- Introduction of subsidies on the confectionary. This can increase the demand for the products since it encourages more production hence low prices.
- Increased taxes on the incomes of confectionary consumers. This reduces the demand for the product due to less income available for expenditure.
- Changes in the taxes levied on substitutes for confectionary. High taxes on substitutes will increase the demand for the product while low taxes on substitutes reduce the demand.
- Changes in taxes on confectionary inputs. High taxes on inputs lead to high prices hence low demand for the product while low taxes will eventually lead to high demand.
- Quality assurance about the fitness to consume the confectionery. Strictness in the quality assurance policies may lead to high prices hence low demand for the product while relaxed policies may increase on the demand.

Question 3

- (a) Explain the following terms:
 - (i) Fixed exchange rate. This is the exchange rate is determined by the monetary authority not by forces of demand and supply. It can depart from equilibrium depending on the interest of the government. This operates in the command and control economy.
 - (ii) Floating exchange rate. This is the exchange rate is determined by the forces of demand and supply. Here the rate can appreciate (gain value) or depreciate (loss of value). This operates in the liberalised market.

(b) Suppose 1USD was exchange for Shs 3,200 in January 2018, a year later the same 1USD was exchange to Shs 3,550.

Required:

(i) Calculate the percentage change in the exchange rate.

Change =
$$3550 - 3200 = 350$$

%Change = $\frac{350}{3200}$ *100 = 10.94%

- (ii) The Uganda shilling depreciated against the US dollar by 10.94 per cent between January 2018 and January 2019 which implies its losing value with respect to the US dollar.
- (c) Discuss the effect of National Debt burden on Uganda's macro-economic indicators.
 - Depreciated local currency: loans are being paid back in foreign currency at very high interest rates which weakens the local currency.
 - Output and employment will decline; low levels of investment will reduce the output and employment levels.
 - Aggregate demand will decline. This is due to reduced savings.
 - Investment will decline especially if internal sources are used to finance the debts.
 - Deficit balance of payment; this is due to debts being paid back in foreign currency at very high interest rates which reduces the export earnings hence a deficit.
 - Tax burden shifts to the future generation: the burden of paying the debt is passed on to a generation that did not benefit directly.
 - Income redistribution from the rich to the poor in case of internal borrowing. This arises from reduced inflation if internal borrowing is through the sale of treasury bills and bonds.

Question 4

(a)

- Improved enrolment: since there are more schools, the enrolment numbers have increased over time.
- Improved quality among the private schools; this is due to the increased competition since the schools are now more in numbers.

- Improved remuneration of teaching staff in schools; competition for the teaching workforce has led to better salaries.
- Increased employment in the sector: more schools imply more people being absorbed in the profession which has improved levels of employment.
- Efficiency in education service delivery: due to competition in the sector, there has been improved service delivery making the sector more efficient.
- Expansion in physical infrastructure: better infrastructure has been set up.
- Improved foreign exchange earnings: privatization has attracted foreigners seeking education and this improves the country's exchange rates.
- Increase in the educated population: since there is an increase in the number of schools, more people have enrolled hence the educated population has increased.
- Improved quality of human resource: since the numbers have increased, there is competition amongst the human resource hence yielding to improved quality.
- (b) With examples, explain the following terms:
 - (i) Private goods

 These are goods that excludable and rival. They have to be purchased before they can be consumed, for example, cars, houses etc.
 - (iii) Public Goods

 These are goods that are non-excludable and non-rival hence no one can be prevented from consuming them and can be used by individuals without reducing their availability to other individuals e.g. Public road, fresh air, street lighting.
 - iii) Common resources. These are goods that are non-excludable but rival. They can be consumed by anyone but if any one individual consumes more resources, their availability to others is reduced, for example, fresh water, timber, pasture.

- (c) Explain how fiscal policy can be used to promote income distribution in an economy.
 - Deliberate allocation of government funds to social services.
 - Allocation of funds to underdeveloped region.
 - Progressive on high group and subsidization of low income.
 - Reduced government expenditure on administration.

Question 5

- (a) Explain factors that may determine the demand for the charcoal stoves.
 - Price of stove. If the price is high less will be demanded and if the price is low more will be demanded.
 - Price of other related product like substitute. If the price of the substitute is high, more of the product can be bought and if the price of the substitute product is low then less can be bought.
 - Availability of market. Where the market is available for product, more of it would be bought and when there is no market, less would be bought.
 - Income of consumers. When consumers have enough disposable income to spend, more confectionary would be bought than when they have less disposable income to spend.
 - Consumer tastes and preferences. If the consumers' tastes are in line with the product, the demand will be high and if the consumers give up on consumption, the demand reduces.
 - Level of advertising. An increase the amount of advertising for the product increases its demand and less advertising for a product reduces demand.
 - Size of the population. A big population size will lead to more demand and a small size leads to less demand for the product.
 - Government policy. Effective and good government policies like subsidies increase demand while policies like taxation reduce demand.
 - Future price expectation. If the future prices are expected to fall, the demand will be low and if the future prices are expected to increase, demand will be high.

- (b) Using your experience as managerial economist and public finance expert, explain ways of financing a deficit budget.
 - Borrowing from the public. Here the government can sell bonds to the public in order to mobilise the required funds to finance the deficit budget.
 - Borrowing from the Central Bank. The government can borrow from the central bank by instructing the central bank to print money.
 - Borrowing from external sources like IMF, World Bank, EU.
 - Running down foreign exchange reserve. The governments can rundown foreign exchange reserve to finance the budget deficit.
 - Increase receipts by addition of tax revenue. Create more tax generating avenues.
- (c) Discuss the major objectives of fiscal policy to Uganda's economy.
 - Achieve and maintain full employment
 - Stabilize the price level hence controlled inflation in the economy.
 - Stabilize the growth rate of an economy
 - Maintain equilibrium in the BOP
 - Promote economic development due to the raised revenue.
 - Channel resources towards poverty reducing sectors like education, health
 - Reduce Uganda's dependence on external resources by raising revenue base

ANSWERS TO TEST PAPER 5 CTA DECEMBER 2020

Question 1

- (a) Level of output: costs of production vary with the size of output. If the size of the output is larger, then the costs of production will be more.
 - Productivity of the factors of production: When the productivity of the factors of production is high, the costs of production will fall.
 - Price of input factors: A rise in the cost of input factors will increase the total cost of production.
 - Output stability: The overall cost of production is low when the output is stable over a period of time.
 - Size of the plant: costs of production will be low in large plants due to mass production and mechanisation.
 - Lot size: The larger the size of production per batch, the costs of production will be low since firms enjoy economies of scale.
 - Low returns: costs of production will increase if the law of diminishing returns applies to the firm.
 - Levels of capacity utilisation: the higher the capacity utilisation, the lower the costs of production.
 - Time period: In the long run, costs of production will be stable.
 - Technology: when the firm follows advanced technology in their process, the cost of production will be low.
- (b) Elasticity of demand is the degree of responsiveness of quantity demanded to changes in the factors that affect demand. It can be inform of price, income or cross elasticity of demand while elasticity of supply is the measure of the degree of responsiveness of quantity supplied of a commodity to changes in the determinants of supply and it can be price and cross elasticity of supply.

(c)

- Existence of a natural monopoly: The size of the market and technology in a given activity may not permit more than a single firm in the provision of that commodity or service hence the state can set up a public enterprise to produce the commodity to protect the consumers from exploitation.
- Existence of economies of scale: If economies of scale exist, a service can be provided more efficiently on a large scale than on a small scale hence the state forming a public enterprise.
- Strategic considerations: Certain goods and services may be so vital to national interest that it may not be right to leave their production in the private sector such as power, water hence these products tend to be produced by public enterprises.
- Lack of resources: Uganda lacks many of the resources necessary for development like capital, savings, entrepreneurs and management competence hence it's easier to set up public enterprises so that they can provide these resources.

 Dangerous activities: a public enterprise can be established where it may be a danger is such an enterprise is controlled by private enterprises such as atomic energy.

Question 2

(a) Qd = 80,000 - 50P Qs = 5,000 + 25PAt market equilibrium, Qd = Qs 80,000 - 50P = 5,000 + 25P 80,000 - 5,000 = 50P + 25P 75P = 75,000 Pe = Shs 1,000Substituting the equilibrium price in Q $Qe = 5,000 + 25 \times 1,000 = 30,000$ units

- (a) With examples, explain the following terms:
 - (i) Direct taxes. Direct taxes are taxes levied directly on income and property of individuals and enterprise such that the incidence and impact rests on the taxpaying unit and cannot be shifted to another person such as personal income tax, property tax, corporation tax.
 - (ii) Indirect taxes. Indirect taxes are taxes levied on consumption of goods and services and the taxpaying unit can pass it on to another inform of higher prices such as import duties, export duties and VAT (value added tax).
 - (iii) Progressive tax. Progressive tax is a tax whose rate increases as ones income or earnings, wealth or property increases such as Pay as You Earn (PAYE).

(b)

- There is lack of managerial experience and at the sometime they lack funds to attract training of leaders and managers.
- Leadership problems: they are poorly managed.
- Financial problems: they lack finances due to embezzlement of funds by management, member's reluctance to pay subscriptions and borrowed funds.
- Poor transport facilities: some co-operatives lack transport means and also the poor road network of the country.
- Low output especially of agricultural output which depends on natural factors hence output falls below the expected.
- Lack of spare parts for the machinery, processing plants and this is mainly due to lack of foreign exchange.
- Government interference: at times governments interfere in the running of cooperatives to the extent of appointing its own management.
- Poor quality of production: the quality of produce tends to be low hence attracting low prices that affect their incomes as co-operatives.
- Conservatism especially from the farmers; they don't want to learn new methods of production and hence leading to low quality output.

Question 3

(a)

- Acceptability: the use of money is based on confidence. One is prepared to accept money provided one is confident that others will also be prepared to accept it.
- Portability: It should be able to be carried from one place to another. It must be transportable in terms of bulk and weight.
- Divisibility: It must be capable of being divided into smaller amounts to make possible smaller transactions. This makes transactions more convenient.
- Durability: The goods being used as money must be durable. It would not be acceptable if it could deteriorate.
- Homogeneity: One piece of money should be as good as the other. Varying degrees of quality will lead to confusion and uncertainty in the public.
- Scarcity: It should be scarce otherwise it loses value. Its supply must be less than the demand.
- (b) (i)

Minimum price legislation is where the government sets the price above the equilibrium price. It's also known as the price floor such as minimum wage legislation in the labor market while maximum price legislation is where the government sets a price below the equilibrium price and it's illegal for sellers to sell above the legislated price. It's also known as the price ceiling.

- (i) Explain why price controls are un-operational in Uganda's economy.
- Production is largely in the hands of the private sector (individuals) so the government cannot have direct influence on prices and output.
- Corruption of the individual's in charge of enforcing the controls: They could
 easily be bribed by traders to pay no attention to selling of commodities at prices
 that violate the legislated prices.
- The persistent inflationary tendencies in the economy that results into persistent increase in the costs of production and hence cannot make price controls practical.
- The persistent increase in people's nominal income such that consumers are willing to pay more that the legislated prices.
- The high marginal propensity to import in the economy means that the import prices are externally determined which undermine the price controls.
- The poor nature of transport and communication that make goods unavailable in some areas hence ignoring the price controls
- The ever increasing taxes imposed by government make it impossible for producers and traders to comply with the legislate prices
- The current trend of privatization and economic liberalization make price controls unworkable.
- The general scarcity of essential commodities creates a situation where both sellers and buyers ignore price controls.

• The practical application of price controls is expensive and would increase government spending.

(c)

- Expenditure by government on consumption of goods and services
- Expenditure on agricultural development
- Expenditure on research, education and social services
- Expenditure on defense and civil administration
- Expenditure on exports and external affairs
- Expenditure on payment of interest on loans taken in previous year
- Expenditure on subsidies

Question 4

- (a) It creates trade among the member countries because of free flow of goods without trade barriers.
- It stimulates expansion and establishment of industries as a result of expanding the market
- It promotes resource utilisation due to widened market which puts more resources to use in order to increase output.
- It creates easy access to foreign resources since financing bodies can easily lend to an economic integration due to its economic attractiveness.
- It reduces average cost of carrying out research since the cost of research is shared by member countries
- It increases the bargaining power of member countries since they bargain for prices and conditions in the world market as a group.
- It enables improvement in infrastructure since countries join finances to establish good transport network for easy transportation of goods.
- It promotes international relation among the member states which promotes international peace.
- More employment opportunities are created as a result of free mobility of labour.
- Promotes economic growth due to increased production of goods and services in the market has widened.
- Promoted investment within the region due to large market of goods hence more production.
- It provides a variety of goods among the states.
- It promotes specialization since each country specializes in the production of a good where it has comparative advantage

(b)

- Dominance of peasant agriculture: where there is use of outdated technology hence low levels of output.
- Low levels of income which do not allow for accelerated economic growth and development. They lead to low savings and investment hence limited capital accumulation.

- High levels of illiteracy: where a big section of the population cannot read and write. This leads to low labour productivity.
- High levels of unemployment and under employment due to prevalence of unskilled labour and low levels of output
- Over dependence on external resources and trade: Such economies are over dependent which undermines accelerated economic growth rates
- Existence of excess capacity mainly in the industrial sector leading to underutilization of resources and industries
- High population growth rates due to high birth rates leading to high dependence ratio and burden.
- Low levels of technology which leads to low levels of production and output
- Existence of a small manufacturing sector which concentrates on consumer goods with limited production of capital goods
- High levels of inflation; due to supply rigidities and importation of highly priced goods
- Existence of a large subsistence sector producing only for domestic consumption which leads to low rates of economic growth

(c)

- National Budget workshop (Indicative sector ceiling, budget and Sector work group guidelines)
- Preparation of sector Budget framework paper and revised MTEF allocation within the ceiling
- Inter-ministerial consultations
- Compilation of the budget framework paper and update MTEF
- Cabinet approval of BFP/ MTEF
- Submission of indicative plan/ MTEF
- Preparation of detailed Budget estimates
- Finalization of budget allocations/ MTEF
- Final Budget approval
- Budget Speech

Question 5

- (a) The primary function of an economy is to produce goods and services for satisfying wants of people. The act of satisfying wants by the use of goods and services is consumption.
 - If an economy wants to maintain the existing productivity or increase future productive capacity, it must consume less of what it currently produces.
- (b) (i) Unemployment rate= (Number of Unemployed)/ (Total number of labour force)*100
 - =10.8/25.1*100
 - = 43.03%

(ii)

- Controlling population growth rate so as to reduce the dependence burden leading to increased savings and investments and thus create more jobs.
- Carrying out education reforms /training through vocationalising of labour to equip them with skills to create their own jobs.
- Developing infrastructure such as construction of better roads to enhance the transportation of agricultural produce and industrial inputs to markets and factories hence more jobs in the agricultural and industrial sector.
- Expanding infrastructure such as roads, power generation, schools etc to facilitate the process of investment thus create more jobs.
- Diversification of the economy creates multiple economic activities in the different sectors which generate more employment opportunities.
- Liberalisation of the economy hence increasing private investments where people can be employed like removing trade restrictions
- Improving the political atmosphere to create peace and encourage investors to set up economic activities that give employment.
- Encouraging the use of appropriate technology like labour intensive technology that uses more units of labour hence more opportunities for people to work
- Attracting more foreign investors to set up investments like giving subsidies, tax holidays so as to reduce their costs of production.
- Privatization of public enterprises that leads to efficient management that increases profits hence expansion and creating job opportunities
- Widening of markets both internal and external to encourage more production that would require more people working hence creating jobs
- Availing credit facilities to individuals or groups so as to give them sufficient capital to start up their own jobs
- Export of surplus labour: it can be done through external employment agencies that take people to work in other countries.

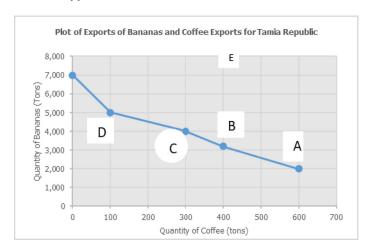
(c)

- Maintaining full employment: such that all available resources are utilized efficiently more particularly labour ie where everyone who wants to work at a prevailing rate is able to get a job.
- Achieving a high rate of economic growth: where there is a persistent increase in the value of goods and services produced hence a high GNP
- Deal with redistribution of income, property or wealth within the economy
- Achieving favorable balance of payments: where the monetary value of exports is more than that of imports
- Maintaining price stability: having stable prices for the goods and services in the economy.
- Maintaining law and order.

ANSWERS TO TEST PAPER 6 CTA OCTOBER 2021

Solution 1

a. (i)



From the curve, it is downward sloping. This implies there is a negative relationship between the quantity of coffee and banana export. For one to increase, the other has to decrease.

(ii) Productive efficiency is achieved when it is impossible to increase the production of coffee without decreasing the production of bananas holding other factors constant While Allocative efficiency is achieved when it is impossible to change the allocation of resources in a way that will make one sector better off without making another worse off.

(iii)

Combination	Α	В	С	D	Е
Coffee Revenues	2,550,000	1,700,000	1,275,000	425,000	-
Ad valorem Tax	63,750	42,500	31,875	10,625	-
Net Coffee Revenues	2,486,250	1,657,500	1,243,125	414,375	-
Banana Revenues	680,000	1,088,000	1,360,000	1,700,000	2,380,000
Total Export					
Revenues	3,166,250	2,745,500	2,603,125	2,114,375	2,380,000

Maximum export revenue = \$3,166,250

Revenue maximizing combination is A; (600 tons of coffee, and 2,000 tons of bananas)

b. Policies that can improve balance of payment position

Diversification of exports. Manufacturers and exporters can be encouraged to diversify the exports through lowering credit used for financing exports hence production of varied products which contribute towards economic development.

Add value of exports. Encouraging producers and firms to add value to produce for better exports. It can be encouraged by granting subsidies to manufacturers and exporters.

Adopt better farming techniques to improve output. Since Uganda's economy is predominately agriculture, by adopting sustainable farming practices, it increases production and improves energy security hence production of better goods supporting exportation which encourages economic development.

Join trading blocks. This increases the market size of produce enjoying lower prices of varied products hence boosting direct investments.

Research and innovation for better varieties. Government can encourage more research and innovation which can lead to higher productivity. As productivity increases, more goods are produced and the economy grows hence improving the balance of payment position.

Solution 2

(a) (i) Factors that significantly affect Uganda's inflation rate:

Increased money supply which is not backed by output. The total amount of money in circulation including cash, coins and bank balances; if money supply increases faster than the rate of production, it leads to inflation where too much money is buying few goods.

National Debt financed by printing money. This makes people have more money and when supply stays consistent, it leads to price increases.

Demand pull effects (increased wages without increased output). The demand for certain goods and services is greater than the economy's ability to meet those demands. When this demand outpaces the supply, there is an upward pressure on prices causing inflation.

Cost-push effects (Increased prices of inputs eg power). Increased prices when the costs of wages and raw materials go up hence these costs are often passed down to consumers inform of high prices. Exchange rate depreciation. This makes the country's exports less expensive encouraging foreign nations to buy more of the devalued goods. This makes citizens buy goods at high prices.

High prices of imported raw materials (imported inflation). When the price of raw materials of all imported goods increases. This increases the prices due to increased cost of imported products.

(ii) Strategies that can be Used to control inflation:

- Increase tax rates like income tax, VAT etc. This reduces the growth in aggregate demand.
- Issue government securities to mop up excess liquidity. This can be done through decrease in bond prices and increased interest rates.
- Increase production of goods to back-up excess supply of money in circulation. With increased production of goods on the market counters the increased spending hence reducing the price of goods.
- Reduced government spending. This improves government budget situation which will reduce aggregate demand in the economy.
- Create incentives for private saving like better interest rates on savings to reduce the effect of excess money and individuals holding cash.

(b)

(i) Rationale for deficit budgeting:

- It can be used as a growth strategy during economic recession. The government increases borrowing in a recession, there is a fall in the private sector spending and use in the private sector saving hence more surplus and saving. This increases demand for government bonds.
- To boost output and employment. In a recession, there will be an economic recovery with increased government borrowing which reduces unemployment.
- Inability to improve domestic revenue mobilization. Due to the government inability to raise domestic revenue, the economy can increase government borrowing.
- It increases government expenditure. For example to finance infrastructural development, hence boosting supply of the economy which enables higher economic growth.
- It leads to exploitation of idle resources. With increased government spending, the government is able to put to use idle resources, infrastructural development to boost output.

- It can be used during national disasters. After natural calamities, budget deficits help in funding due to low insurance penetration in the economy.
- It aids in financing defense expenditure during a war situation. Defense, military spending has a positive effect in economic growth through enlarging capacity utilization hence increased investment and aggregate output.

(ii) Economic effect of a sustained budget deficit:

- It causes inflation. This is due to government increasing money supply in order to pay the debt and this will eventually lead to inflation.
- It increases debt burden. In the long run, the government increases its inability to pay current debts which increases the debt burden for the future generation.
- It increases interest payment burden. When the government borrows, it pays high interest rates for delayed payments.
- It leads to increased aggregate demand. The budget deficit lowers taxes and increased government spending and this will increase aggregate demand which may later increase the real GDP and inflation.
- It discourages Foreign Direct Investment. This is because it leads to higher taxes or cut spending in order to reduce the deficit in future. This will late discourage foreign direct investment.
- It crowds out private borrowing. The government will have to borrow from the private sector through selling bonds and securities to the private section. This decreases the size of the private sector.

Solution 3

Salient features of the following economic Systems:

(i) Market System:

- Economic decisions are made by individuals with no governmental intervention. The government involvement is nonexistent.
- Factors of production are privately owned and are controlled by the private sector rather than government.
- Role of government is to provide enabling environment for production of goods and services.
- Firms/individuals seek to maximize profits. It relies on private individuals using capital to produce goods and earn from them a profit.
- Consumers seek to maximize utility. Consumers demand more goods that send out firms to produce more goods for them.
- Highly competitive and high allocative efficiency. Since private monopolies can arise and self-regulating in the long run.
- Prices are set by the market forces of demand and supply. Instead of government dictating what goods and services should be produced, these are driven by supply and demand mechanism.

(ii) Command System:

- Factors of production are owned by government. Government is the sole owner and decides on the rues of command.
- Government provides output and enabling environment since it solely controls all resources.
- Economic decisions are made by government with no involvement of firms/individuals. Government determines what goods to produce, how to produce and the prices.
- There is no competition and no allocative efficiency because government is the only producer of goods and services.
- Government decides distribution of goods and income. Government is the central planner and decides how to optimally distribute goods and incomes.

(iii) Mixed System:

This system lies in between the market and command system.

• Economic decisions are made by government in consultation with private players.

- Factors of production are owned by private firms with government control a smaller share. There is some level of private ownership with government controlling some.
- Regulation and enabling environment are a responsibility of government. This helps to avoid dangerous practices.
- Prices are determined by market with minimal of government since private owns the larger share of resources.
- Competition is less than pure market system.
- Allocative efficiency is less than market system.

a.

Economic system in <u>Uganda is Mixed System</u>

- Mobilization of savings. Capital markets increase the proportion of long term savings that is channeled through long term investment.
- It is a source of cheap and long-term financing for government and corporations. It offers an opportunity for investors to buy and sell their securities hence earn interest on them.
- It aids in capital formation. In a developing economy, capital markets aids in wealth creation which improves conditions for production hence growth.
- It is a channel savings into efficient investments. The capital gains from prices of securities help in accumulative investment over time that creates opportunities for growth in wealth.
- It helps in regulation of funds. They ensure effective utilization since they are guiding factors for people to channel their funds
- It finances economic growth and development. They create a suitable financial condition to attain investment in infrastructural development which accelerates economic growth.

Solution 4

(a)

- (i) Private goods and Public goods
 - Private goods have exclusive consumption while Public goods are non-rival and have nonexclusive consumption.
- (ii) Instances where the government of Uganda may intervene in a liberalized market:

- Market failure where market economy fails to deliver an outcome that is efficient. These occur when there is increase monopoly tendencies, factor immobility and information gap and hence government intervention is needed.
- Provision of services of strategic importance like education and health. When the government sectors does not provide such goods, the population may not access them easily.
- Over exploitation of non-renewable resources. This is when natural resources like swamps, forests are over exploited. In order to avoid adverse economic effects like global warming, the government intervenes.
- Resources remain idle for long. When resources that could be used to full capacity are not efficiently used, then the government can intervene to ensure efficient use of resources to enhance growth and development.
- In case of smuggling out strategic goods like army equipment which would lead to the economy not gaining from the goods and services available
- In case of production of goods harmful to the economy. Where there is production or sale of dangerous goods to the population like radioactive materials, explosives etc, and then the government can intervene.
- Redistribution where the market leads to wide income inequality. Through taxation, the government can help redistribute incomes in order to reduce the income inequality gap. This could reduce on poverty levels.
- (iii) Ways in which GOU may intervene in a liberalized economy:
 - Selective application of taxes. These taxes like income tax and VAT can help in redistribution of incomes hence reducing poverty.
 - Selective application of subsidies. The government can give subsidies, tax holidays to producers and this will increase in the overall supply of goods and services which increases the quantity demanded.
 - Restrict private sale or purchase. The government can set up quotas that restrict the private sale or purchase of certain goods and services.
 - Provision of public services like health and education which would enhance the population to access them.
 - Public private partnerships. The government and the private sectors work together on provision of goods and services. Here, the government pays and the private sector provides.
- (b) How exchange rates are determined in an economy.
 - (i) Purchasing Power Parity

Purchasing power parity (PPP) of a currency refers to the quantity of currency needed to purchase a given unit of good. PPP theory means the rate of exchange between currency equate the domestic prices for a universal product

(ii) Flow approach

Exports give rise to supply of foreign exchange but imports give rise to demand for foreign exchange.

For demand and supply to equalize, a conversion factor (exchange rate must be computed to balance the current account.

If exchange rate is left to float, the rate will settle at levels that demand equal supply. Hence supply and demand are flow variables.

(iii) Stock equilibrium

Since the demand or supply of foreign exchange may not be related to trade, this theory contends that demand and supply of foreign is a stock $P=eP^*$ where $e=\frac{P}{P}$

P = domestic price of goods

 P^* = foreign price of good.

Solution 5

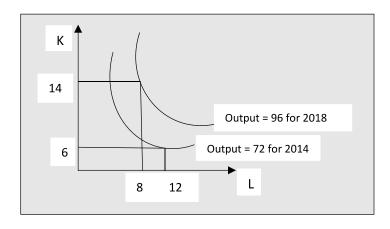
(a)

(i) Marginal rate of technical substitution.

Marginal rate of technical substitution (MTRS) of say, labour for capital is the number of units capital that can replace each unit of labour to maintain the same level of output.

$$MRTS_{KL} = \frac{\Delta K}{\Delta L}$$

(b)



Marginal product of labour, MP_L =
$$\frac{change\ in\ output}{change\ in\ units\ of\ labour}$$
$$= \frac{(56+40)-(40+32)}{8-12}$$
$$= -6$$

<u>Interpretation</u>: for every unit *reduction* in labour, output of Orchard Juice Company *increased* by 6 units.

(ii) Marginal product of capital,
$$MP_k = \frac{change\ in\ output}{change\ in\ units\ of\ Capital}$$

$$=\frac{(56+40)-(40+32)}{14-6}$$
$$=3$$

<u>Interpretation</u>: for every unit *increase* in capital, output of Orchard Juice Company *increased* by 3 units.

(iii)

$$MRTS_{KL} = \frac{Marginal\ Product\ of\ Labour}{Marginal\ Product\ of\ Capital}$$
$$= \frac{-6}{3}$$
$$= -2$$

Interpretation: for every unit of capital substituted 2 units of labour.

- (d) Economic benefits of the Orchard Fruit Firm to Soroti District.
 - Employment opportunities for residents. For both the skilled and unskilled employment opportunities, they can be generated with this firm at the district.
 - Incomes for farmers supplying produce. Due to increased production, there is increased demand for farmers produce hence increasing the incomes of the farmers which leads to growth.

- Tax revenues to the local government. The increased economic activities lead to more tax generated by the local government hence provides social needs like roads.
- Skill transfers. This is from increased productivity were workers are able to effectively compete which leads to improved job opportunities.
- Auxiliary investments such transporters, waste management etc. . . . The level of increased economic activities in the district, leads to infrastructural development and more investments in the long rum.

ANSWERS TO TEST PAPER 7 CTA JUNE 2022

Solution 1

(a) Discuss the fundamental problems that are always faced by economic agents.

Scarcity: Scarcity gives rise to price. It gives rise to the list of preference that needed to be met first and give rise to list of priority to be set.

Choice: Choice arises out of scarcity of resources. This therefore gives rise to scale of preference where list of priority is indicated. When consumers pick the 1^{st} item and not the 2^{nd} item, he is making choice.

Opportunity Cost: When consumer uses list of preference to make choice, it means that he/she is making decision to satisfy wants. This however means that he is sacrificing some other set of commodities. The consumer is making choice because he cannot satisfy all of his need. By making choice it means that he is sacrificing some commodity for another. The opportunity cost of the commodity provided is the commodity which has been foregone.

(b) Discuss the main structure of Uganda's economy.

Agriculture sector: This is the dominant sector of Uganda's economy. It's the backbone of the economy. It involves fisheries, animal husbandry, dairy and crop subsectors. It produces the largest share of exports and a considerable amount of women in the sector. Most of the rural sector relies on it. It's favored by the climate good for production. It's predominantly subsistence production.

Service sector: This involves telecommunications, hotels, and restaurants. This sector has greatly expanded for instance the telecommunication/cellular lines has greatly expanded. The infrastructure is still developing.

Industrial Sector: This involves manufacturing, construction, energy. This is about 25% and it has grown where most industries, infrastructure have been set up. There has been an increase in electricity generation, manufacturing firms. Most industries are based on agricultural production.

Tourism sector: Uganda is a natural tourist destination. This sector ranks third in the major part of the economy. The number of national parks and tourist attraction centers has grown. This has increased foreign investment.

Trade: Uganda participates in several regional economic integration for instance EAC and COMESA. This has been demonstrated by the growth of the level of imports and exports.

(c) Discuss Uganda's budget process.

Budget Call Circular – showing indicative budget ceilings for sectors. The different ministries are tasked to generate the ceilings with MoFPED. This depends on the resource envelope.

Sectoral/LG consultative workshop. MoFPED involves the Local governments to set up allocations and also carries out ministerial consultations.

Votes develop of Budget Framework Papers and submit to MoFPED. This is done through budget consultations with ministries.

BFPs are consolidated by MoFPED and submitted to Parliament. It gives the broad allocation of resources between sectors, giving sector ceilings as per the recommendations from the consultations.

Sectors/LGs defend their budgets before the line parliamentary committees. Sector working groups organize discussions with agencies.

Consolidated BFP is passed by Parliament. The parliamentary sectoral committees present their reports to the parliamentary budget committee with consultations, parliament consolidates their recommendations to the cabinet.

Forwarded to cabinet. Cabinet endorses the National budget framework paper.

Presented to the Parliament by the Minister of Finance. The Minister presents the budget speech in parliament which clearly gives the financial outlook of the economy, tax measures and strategies, trends etc.

Solution 2

(a) (i) Calculate the elasticity of demand for the processed groundnuts if the original price and quantity is Shs 9,000 and 1,000kg respectively.

Average price is Shs 9,000 per 1,000 units

$$E_{dd} = \frac{\Delta_{QxP}}{Q_{x\Delta P}}$$
 (2 marks)
$$E_{dd} = \frac{-20}{30} \times \frac{9,000}{1,000}$$
 (2 marks)

$$E_{dd} = \frac{-20}{30} \times \frac{9,000}{1,000}$$
 (2 marks)

$$E_{dd} = -6$$
 (1 mark)

(ii) Explain the determinants of elasticity of demand for the processed groundnuts.

Degree of necessity of the commodity: The nature of the commodity affects the elasticity of demand. The demand for necessities of life cannot be postponed so it is inelastic demand. For luxury goods which are not necessities, the demand is highly elastic.

Availability of substitutes: Goods with close substitutes have elastic demand since the consumers can switch them easily whereas if a good has no close substitutes like sugar and salt, the demand is inelastic.

Proportion of income spent on a particular commodity: In case of certain goods like match boxes, salt where a consumer spends a very small amount on his income, the demand is inelastic whereas for goods where a consumer spends major proportion of income, the demand is elastic.

Number of uses of a commodity: For commodities with single purpose, the change in price will affect the demand for the commodity in that use making demand inelastic whereas the product with several uses, the demand is elastic.

Level of addiction of the commodity: For commodities where consumers are highly addicted, the demand is inelastic as compared to commodities where there is no addiction, such have elastic demand.

Initial level of income: For high income groups, the demand is less elastic as the rise or fall in the price will not have much effect on the demand for a product whereas in the case of low income groups, the demand is elastic and the rise or fall in the price will have a significant impact on quantity demanded.

Time period: If the demand for a particular product cannot be postponed, then the demand is said to be elastic like wheat which is required in our daily lives, whereas items for which demand can be postponed, they have elastic demand.

Range of prices: The price ranges in which commodities affect the elasticity of demand. A higher range of prices is usually bought by rich people who don't care about changes in price, the demand is inelastic. Lower range of prices also have inelastic demand however the middle range prices have elastic demand.

(b) Discuss the benefits of Uganda's adoption of privatization policy to small scale businesses and household units.

More output is sold because of availability of market: With privatization, private owners are more likely to capture the available market hence produce more goods.

Resources go to people who are able to pay for them: The resources or costs are channeled to more effective programs like state services, infrastructure.

Efficiency in production: This involves lowering operating costs through the use of more flexible personal practices, job categories, streamlined operating procedures, better procurement practices etc.

High quality service: Contracts awarded well and are designed with performance standards that create incentives for high quality services. It's also due to increased government inspections.

It has encouraged income distribution amongst the citizens. Since the small firms are able to also produce and benefit in terms of income generating activities.

Increase in innovation: Privatization stimulates innovation. This is due to competition of forces of private firms hence developing innovative, efficient methods for providing goods and services.

Creation of employment opportunities: Due to increased production in private firms and more products to fit the market available, such a growth leads to more employment opportunities.

Solution 3

- (a) Differentiate between the following terms:
 - A firm and an industry.
 A firm is a technical unit where outputs are generated while an industry is a collection of firms.
 - (ii) Output and Input.

 An output is what comes out of a firm (amount produced by the firm) while an input is a resource used in the production process of a firm
 - (iii) Short run and long run.

 Short run is a period of time in which the quantity of at least one input is fixed and the quantities of the other inputs are varied while long run is a period of time in which the quantities of all the inputs can be varied.
- (b) Discuss the major objectives of a business firm.

Profit maximization: Business firms aim at maximizing profits that will give high dividends to shareholders, more money for innovation, research and development, and also more profits to increase salaries of workers.

Sales maximization: Firms aim at maximizing sales though seeking to increase their market share even if it means less profits. Through making more sales, firms would push for better salaries, increase monopoly power and outcompete their rivals.

Growth maximization: This is where firms involve in mergers and takeovers. The firms here may be willing to make lower levels of profits in order to increase in size and gain more market share.

Satisfying behavior: Here, firms create minimum level of profit to keep shareholders satisfied/happy but then maximize on other objectives like enjoying work, good working relationship with others.

Long run survival: This is where firms aim at staying in operation for a long time and this can involve long run profit maximization. Here, a firm can invest heavily in new capacity or technology.

Outcompete competitors: As a firm increases its market share in the long run, they may force its competitors out of business by for example engaging in predatory prices which involves making a loss to force out rivals put of business.

Entry prevention and risk avoidance: Here, a business firm in being the market leader can prevent other firms from entering the business.

Market dominance: This involves a firm dominating the market by increasing its monopoly power and enables the firm to set prices and this can lead to profits in the long run.

Social/economic objective: A firm aims at incurring extra expense to choose products which don't harm the environment or products not approved for consumption. Firms can also be concerned about the social/local community concerns (corporate social responsibility).

(c) The role of government of Uganda involves transfer of funds from the reserves to local government. The intention of this transfer is to facilitate the activities of the local government so as to produce the desired output.

Required:

Explain how such transfers can benefit small holder firms in local governments.

Source of employments to small holder firms: Such funds lead to the expansion of the firms and this enables them to create more employment opportunities in the communities.

Small holder firms can earn income through contracts: With available funds, a firm can competitively gain from contracts which increases their income base.

Can promote the welfare of small holder firms: Funds enhance the growth of these firms and through which they can increase on the salaries and benefits of their employees which improves the welfare.

Such transfers can help in the distribution of income in the country where resources available are being shared by many across the country that improves the distribution of income.

Poverty reduction in the long run: When incomes are fairly distributed through the transfers, poverty would greatly be reduced due to increased opportunities in the communities.

Production of more goods and services: Funds encourage firms to produce more goods and services and this increase in output would also increase on consumption that leads to economic development.

Solution 4

(a) In the early 1980s government of Uganda had a policy of controlling prices of the major agricultural products in the country. Such products would then be marketed through marketing boards. The major advantage of such policy is that producers and consumers of these products would be protected through price fluctuations.

Required:

Explain the effect of price ceiling on consumers of such goods.

Less output can be produced: The supply of commodities is always less due to the low price set that discourages producers from producing a lot. This leads to shortages.

More demand for goods and services: There will be a higher demand for goods at lower prices since low prices encourage more demand.

Black markets: It leads to more selling of goods on the black market. Due to shortage of commodities, it encourages sellers to begin trading commodities at extremely high prices compared to the usual price.

Hoarding of goods: Producers tend to hoard commodities produced with hope of high prices in future and gain more leading to high prices in the long run.

Leads to queue to purchase goods and services: This is due to low supply of commodities yet there is high demand. High demand for goods leads to queuing where consumers stay in long queues for commodities.

Government rationing: With shortage in the market, government begins to ration distribution to restrict the demand of consumers. Hence, the consumers won't be able to utilize goods they need.

Degradation of quality: Producers won't be able to generate desirable profit when the government sets the price ceiling. This forces them to use raw materials of comparatively lesser quality in order to maintain their revenues hence reducing quality of produce.

(b) Explain how price support can benefit producers.

Excess supply: More goods and services would be produced in the economy because of high price incentive hence immediate supply surplus will be observed.

The demand for goods and services would be less than the supply and hence over production since too many goods would be available for less demand.

Search for bigger markets: Since more goods and services are produced, producers can be tempted to look for market outside the economy.

It leads to losses: Produces will lose out since there is over production in the economy yet the demand is less.

Government intervention: Due to excess surplus, the producers sell at a lower price in order to increase consumer demand and clean off stock but this affects producers hence government has to intervene and buy the surplus inventories.

(c) Assess the structure of public expenditure policy in Uganda's economy

There is excess public expenditure in Uganda because of blotted Public administration. Too many administrative units like districts, constituencies which increase the expenditure to fund these units.

More funds are allocated to public administration sector than other sectors. This is from increases costs on administrative units other than critical sectors like education, health etc.

Funds are allocated to non-production sectors of the economy like public administration. This is due to lack of allocation efficiency.

There is poor service delivery out of the expenditure provided since the funding of the different sources like education, health infrastructure etc. is not considered as important. This is also due to channeling funds to non-critical areas like public administration.

Over 50 percent of the public expenditure is from the donor funds. The bigger percentage of the budget is funded by loans and grants hence government does not prioritize internal sources of funding.

A greater percentage of the funds are misappropriated: This is due to factors like poor planning, corruption, bureaucracy. This has weakened the system hindering economic development.

Solution 5

- (a) Explain the following terms:
 - (i) Narrow money (M1)

Narrow money (M) refers to currency in circulation plus demand deposits. It includes all physical money, demand deposits that are easily accessible to central banks.

$$M1 = C + D$$
.

- (ii) Broad money (M2)
 Broad money refers to currency in circulation plus deposits which include fixed deposit accounts and other financial assets.
- (b) Explain the functions of money in Uganda's economy.

Unit of account: It can be used to measure and record financial transactions and also the value of goods and services produced in a country at one time for example Gross National Product (GNP).

Standard measure of value: It's used as a measuring yardstick of almost everything. Usually, all things have prices hence valued in terms of money. People are enabled to compare different prices and thus the relative value of different goods and services.

Medium of exchange: It helps overcome the drawbacks of barter exchange where money provides the most efficient means of satisfying wants.

Standard of deferred payments: This means that it can be held for a period of time and can be used to finance future payments. A payment can be spread over a period of time like paying for goods using hire purchase.

Store of wealth: Money can be used to store the value of someone's wealth other than storing items.

(c) Discuss the qualities of good money.

Portability: Money should be portable where it can easily be put in a person's pocket to transport and store.

Divisibility: It should easily be changed for other denominations where it can be divided into different amounts.

Homogeneity: Money should be the same all through i.e. same notes can have the same size, shape and value. It should be uniform.

Recognizable: Good money should easily be recognized by all using it in the transaction across board (countries/economies).

Durability: It should be durable over time and can easily be replaced of damaged.

Scarcity: In order to maintain its value, it must be limited in supply.

Acceptability of value: It should be acceptable by people in its value like when using it to pay bills.

(d) Explain the following terms:

(i) Progressive tax

Progressive tax is a tax that increases with the increase in level of income i.e. when income increases it also increases. It is good at mobilization of tax revenue. It is recommended in the distribution of income and wealth in the economy for example income tax, estates tax, rental earnings tax, tax credits etc.

(ii) Regressive tax.

Regressive tax is a tax where the average tax burden decreases with income. It is a tax that reduces when income increase. It is not recommended in the distribution of income and wealth in the economy for example taxes on goods like alcohol, fuel, tobacco etc.

ANSWERS TO TEST PAPER 8 CTA MAY 2023

Solution 1

- (a) Steps of cost benefit analysis may include the following:
- ✓ Define the goals and objective of an action.
- ✓ List the alternative courses of action.
- ✓ Identify the different stakeholders and partners.
- ✓ Select units of measurements and measure all the cost and benefit elements.
- ✓ Predict outcome of cost and benefits over the relevant period and convert them to a common currency.
- ✓ Select and apply a discount rate.
- ✓ Use a relevant method (Net Present Value) and calculate the relevant figures.
- ✓ Perform a sensitivity analysis.
- ✓ Adopt and recommend a course of action.
- (b) Given a discount rate of 15%, calculate the Net Present Value and advise Mr. Abima on the viability of the above project.

A student is expected to use the discount rate to compute the NPV for the project and use the answer to advise on the way forward.

	Estimated	Estimated	Net Cash	Discount	Present
Year	Revenues	Costs	Flows	Factor	Value
0		232,000	-232,000	1.00	-232,000
1	20,000	36,000	-16,000	0.86	-13,760
2	34,000	32,000	2,000	0.75	1,500
3	40,000	26,000	14,000	0.65	9,100
4	48,000	24,000	24,000	0.57	13,680
5	54,000	20,000	34,000	0.49	16,660
				NIDV/	204 020

NPV -204,820

From the computation, the NPV is a negative which implies the project will be operating in losses of deficits which means that the project is not viable. Therefore, Mr. Abima should not invest in that project.

- (c) Account for the income disparities in developing economies.
- ✓ Differences in the level of education and skills among people. Those with higher levels of education and skills tend to earn more than those with lower. Educated find highly paying employment.
- ✓ Differences in distribution of natural resources. Regions with more resources tend to generate more incomes from them than those with less resources.
- ✓ Differences in distribution of economic infrastructure like roads, power. Urban areas with ore resources tend to have high levels of economic activity that help them to generate more incomes than the rural areas.

- ✓ Differences in political climate. Political stability supports more productive economic activities which generate more income than those with political instability.
- ✓ Differences in nature of jobs/ employment. Individuals with highly paying jobs will earn more incomes than counterparts with less paying jobs.
- ✓ Differences in family background. Individuals with a richer background who have accumulated wealth/incomes over time will have more incomes than those from a poor background.
- ✓ Difference in talent/natural abilities like sports, art or music. Individuals with such rare talents tend to earn more than those less talented.
- ✓ Differences in accessibility to credit and contracts by the people. People with better access to such services tend to earn more incomes than those with less access.
- ✓ Differences in access to employment. Individuals who are employed tend to have more incomes than those who remain unemployed.
- ✓ Differences in productivity and attitude of individuals towards work. Individuals who are more productive tend to earn more than those who are not.

(a) Change in Income=Multiplier M* Change in Investment Multiplier M=1/ (1-MPC) =1/ (1-0.2) =1/0.8=1.25 Change in Income=1.25*200= 250

When the MPC increases, Multiplier M=1/ (1-MPC) = 1/ (1-0.8) = 1/0.2=5Change in Income=5*200= 1000

An increase in the MPC, increases the multiplier which in turn shows an increase in the national income. Therefore, a higher MPC reflects a higher multiplier. This further shows that the more people consume reflects extra spending leading to extra incomes.

- (b) Causes of unemployment in developing countries.
- Rapid population growth where the population grows faster than the overall rate of growth. Labor expands faster than the absorption rate.
- The use of inappropriate technology. Technology in developing economies is more labor intensive and labor cannot be absorbed in the production processes.
- ✓ Lack of cooperating factors of production. Other essential factors of production like capital once combined with labor in a firm though they are not available.

- ✓ Distortion of relative factor prices. If capital is relatively cheaper than labor like giving various policies of investment incentives, tax holidays. Also, labor can be expensive through minimum wages and trade unions.
- The nature of the education system. The rate of job creation is low since training is geared towards white collar jobs.
- Seasonality in production. In developing economies, agriculture sector is predominant and yet it highly depends on seasons.
- ✓ Limited products markets. Cases where production is mainly for export and some primary products have low price, there will be unemployment creation in production of the primary products.
- ✓ Massive Rural Urban Migration. Mainly leads to urban unemployment due to insufficient jobs for the high population in the urban areas.
- ✓ The adverse effects of economic reform programs like liberalization in some sectors like production. Due to competition with foreign substitutes which may be cheaper forcing shut down of operations in those sectors hence unemployment.

Reasons for controlling international trade include the following:

- To protect infant industries. Infant industries which have just been formed may not be able to stand competition from foreign industries.
- ✓ To protect against unfair actions by foreign firms and governments like price discrimination, dumping etc.
- ✓ To create and maintain domestic jobs. Import restrict stimulates exports hence increase in aggregate demand for domestic products and cause a general expansion of employment.
- ✓ Protection of a declining industry. Restrictions stimulate demand for products of declining industry.
- National security argument. Governments impose import restrictions of defense related goods.
- ✓ To improve balance of payment position especially restricting imports and encouraging exports. This will in turn improve the quality of exports.
- ✓ Protecting a country's standard of living. Consumption of cheap goods imported may undermine the standard of living hence country restrict such importation.
- ✓ To strengthen political ties. To give preferential rates to some countries hence promoting political objectives.
- ✓ Increased revenue brought in by tariffs. Tariffs imposed on the imports of commodities from foreign country can add tax revenue to the domestic country.

- (b) Objectives of the East African Community (EAC).
- ✓ To create a common market and foster trade in the region.
- ✓ To create trade and investment partnership within the region.
- ✓ To increase employment opportunities by allowing free movement of people across the region.
- ✓ To improve on the standards of living of people in the region.
- To create monetary union by sharing a common currency and monetary policies.
- \checkmark -To foster the establishment and expansion of the industrial sector in the region.
- (c) Achievements and failures of the International Monetary Fund in developing countries.
 - The achievements of the International Monetary Fund include the following:
- ✓ Monitoring economic reform program policies i.e., the structural adjustment policies.
- ✓ Offers assistance in the form of surveillance which it conducts on a yearly basis.
- ✓ Offer financial assistance to member countries in case they are in an economic crisis.
- ✓ To assist countries, deal with gross balance of trade deficits.

The failures of the International Monetary Fund include the following:

- ✓ It lends money with strings attached inform of conditions like claiming that the structural adjustment is an undemocratic and inhumane means of loaning funds.
- ✓ Debtor countries to the IMF are often faced with having to put financial concerns over social ones.
- Counties the embrace the SAPs like privatizing public enterprises and cutting government expenditure suffer inability to fund their own programs like education and health.
- ✓ It deepens the gap between the wealthy and poor nations since it seems to favor the wealthy ones.

Solution 4

(a) (i) Distinguish between internal debt and external debt.
Internal debt is money borrowed by the government from internal sources within the country like individuals and institutions. It can be through the sale of treasury bills, sale of tax certificates.

Whereas

External debt is the money borrowed by the government from sources outside the country like international lending organs for example IMF. (i) Ways in which public debt management can be carried out in an economy.

Internal debt can be managed in the following ways:

- ✓ Use of debt conversion. Government gets a new loan on softer terms and uses it to pay the earlier loan on hard terms.
- ✓ Use of surplus budget. Government deliberately collects more money inform of taxes and it spends what it intends to spend, then the surplus is used to pay off the debt.
- Creation of a sinking fund. Government builds up a special fund overtime which can be used for debt repayment.
- ✓ Increasing the level of taxation where the public is compelled to pay more taxes and government realizes the revenue to pay the debt.
- ✓ Using accumulated profits from government owned enterprises which are intended to make profits. Profits are used to clear the debt.
- ✓ Floating of government securities for the public to buy and use the proceeds to clear the debt.

External debt can be managed in the following ways:

- ✓ Through debt rescheduling. Government can agree with the creditors to pay the debt on a future date.
- ✓ Through seeking grants from friendly countries so that the debt can be repaid.
- ✓ Use of debt repudiation. Government outrightly rejects to pay the debt.
- ✓ By negotiating debt cancellation/debt waivers. Government pleads with the creditor to cancel outstanding loans.
- ✓ Through disinvestment. Government sells off its accumulated assets to raise funds to pay off debt.
- ✓ Through depleting of foreign reserves of a country. Government sells off foreign currencies held by the central bank.
- (b) Write short notes on the following terms;
 - (i) Economic Growth means more output. Thus, it is the quantitative increase in the volume of goods in an economy. Economic growth may also involve not only more output derived from greater amounts of input but also greater efficiency in the production of output. i.e. increase in output per unit of input.
 - (ii) Economic Development means more output but with changes in the technical and institutional arrangements by which output is produced and distributed. It may also mean improvements in the material welfare especially for person with lowest income, eradication of mass poverty which correlates with improvements in literacy, reduction of diseases and mass death. This implies changes in the composition of inputs and outputs that generally includes shifts in the underlying

structure of production away from agriculture towards industrial activities.

(iii) Sustainable Development

This is the development that meets the need of the present generation without compromising the ability of the future generation to meet their own needs. For instance, a natural resource in an economy should be exploited by the current generation in such a way that the future generation should also be in the position to benefit from the same natural resource Thus, Sustainable Development considers the intergeneration and intergeneration equity.

Solution 5

- (a) Different categories of government expenditure in an economy.
- ✓ Economic services like agriculture, industry and fisheries. Government spend on these institutions to provide services to the community. The expenditures include wage, non-wage and development.
- Social services like health, education and information. Government spend on these institutions by setting up infrastructures like hospitals, schools etc.
- ✓ Government spends on law and order including internal affairs, police, and special intelligence services.
- ✓ National defense which involves spending on the army, its recruitment, maintenance and other logistics.
- Administrative services like civil and public services, local governments inform of wages and salaries.
- ✓ Community services/Infrastructure including roads, power generation, Railways Bridge etc. in order to increase productive capacity.
- ✓ Public debt management. Government spend on debt servicing and repayments.
- ✓ Government spend on transfer payments like grants, pensions, natural disaster relief etc.
- (b) How government incomes from taxes and borrowings as well as government expenditure can be used as policy instruments for economic control.
- ✓ A Government channels resources towards provision of basic services (government expenditure). This shows the government allocation function. It deals with influencing the provision of goods and services in the economy.
- ✓ Resources to fund a government budget can be from borrowing from different sources. (Public debt).
- ✓ In order to reduce the governments' dependence on external resources, it raises the revenue base in an orderly manner (taxation).
- (c) Ways in which the theory of opportunity cost can be used to decide on the level and allocation of public resources.

- ✓ Governments need to choose how much to spend on social overhead capital for long-run economic development and how much to spend on directly productive projects with a more immediate pay off.
- ✓ Through choice regarding he level and quality of infrastructural provision at any level of output and the rate at which such provision is expanded as output grows.
- ✓ There is choice between social services like education, health, community development and economic services like agriculture, industry.
- ✓ There is a choice regarding the proportions of the budget devoted to general administration and general public services like defense, law and order.

TEST PAPER 9 SOLUTIONS CTA 4 - NOVEMBER 2023

Solution 1

(a) (i) Difference between elasticity of demand and elasticity of supply

Elasticity of Demand refers to degree of responsiveness of quantity demanded of a commodity due to given percentage change in a factor that affects quantity demanded.

While

Elasticity of Supply refers to degree of responsiveness of quantity supplied of a commodity due to given percentage change in the price of the commodity.

(ii) How government can let the proposed merger of the two firms to happen. If the cross elasticity between Coke and Pepsi Century Bottling and Crown Beverages is high, it makes them strong substitutes for each other. In addition, both firms Century Bottling and Crown beverages constitute a big percentage of all carbonated drinks. If taken together or merged, the high cross elasticity and the large market shares suggest that the government is likely to block the merger. This is because the merger would substantially lessen competition.

In the contrast, the cross elasticity between Coke and fuel is low or zero, a merger between Century Bottling and Shell Oil company would have a minimal effect on competition so the government would let that merger happen.

- (b) Application of the concept of elasticity in day to day economic situations.
 - It allows economists to analyze supply and demand with greater precision. Since it allows analysis of the effect on quantities from other factors that affect demand and supply.
 - Elasticity helps in government taxation: The government imposes taxes on goods in which the price is inelastic there by generating high revenue. This is because increase in price due of the tax does not greatly affect quantity demanded. On the other hand, commodities which are price elastic attract lower taxes because higher taxes discourage their consumption therefore the government gets less revenue.
 - Used in determining subsidies: Subsidies are negative taxes that reduce the cost of production and reduce prices. Government usually subsidizes production of commodities with elastic demand.
 - Fixing price utilities: The knowledge of price elasticity of demand is important when the government is determining price of public utilities e.g. water and electricity. If the product is price inelastic, a higher price will be charged than when its price elastic.
 - Used in wage determination: Low wages are paid to unskilled labor with elastic demand and high wages to skilled labor with inelastic demand.

- Used in price discrimination: price elasticity helps monopolists in practice
 of price discrimination i.e. selling the same type of goods to different
 customers at different prices. A monopolist charges a low price in market
 where demand is elastic and a high price in market where demand is
 inelastic.
- Elasticity helps consumers plan for their expenditures. Expenditures is likely to be high if demand for that commodity is inelastic and low if the demand for the good is elastic.
- Elasticity is used in devaluation: Devaluation is the legal reduction of the value of a county's currency in terms of other currencies. It is aimed at increasing foreign exchange by the government, increasing the level of export and reducing on the volume of imports. This policy is more successful when imports and exports are price elastic.
- (c) Ways in which organizations can use Economics in managerial decision making.
 - Pricing: Managerial economics assists businesses in determining pricing strategies and appropriate pricing levels for their products and services.
 Some common analysis methods are price discrimination, value-based pricing and cost-plus pricing.
 - Price sensitivity: Economists can determine price sensitivity of products through a price elasticity analysis.
 - Operations and Production: Managerial economics uses quantitative methods to analyze production and operational efficiency through schedule optimization, economies of scale and resource analyses. Additional analysis methods include marginal cost, marginal revenue and operating leverage.
 - Investments: Many managerial economic tools and analysis models are used to help make investing decisions both for corporations and savvy individual investors. These tools are used to make stock market investing decisions and decisions on capital investments for a business.
 - Risk: Uncertainty exits in every business and managerial economics can help reduce risk through uncertainty model analysis and decision-theory analysis.

(a) Effects of the liberalization policy on Uganda's economy.

Positive effects of liberalization policy

- Liberalisation results in higher foreign investment in the nation. The investments are in different sectors such as manufacturing, industrial, and infrastructural.
- With liberalisation, the investment amount in several sectors is increased.
 This increment lowers the risk of recession in these industries.

- Basic infrastructure: As the investment increases, this basic facility also develops, and several industries start to grow. This results in high demand for employment and reduces the problem of unemployment.
- Liberalisation lubricates the manufacturing of a nation. The smooth functioning of different sectors gives better GDP (gross domestic product) as an end product.
- The growth in the gross domestic product increases the export of the product and reduces the import of the goods. This reduces the dependency of the nation over the other nation(s).
- The infrastructure of the nation is developed rapidly with the growth of the industries. New highways, lines of electricity, and communication are installed. Technology is developed by the use of foreign technology in industrial applications.

Negative effects of the liberalization policy

- Liberalisation managed to develop some regions rapidly while it lacked behind in the other regions. This gap of development divided the nation into two different regions.
- Heavy investment in developed industries disadvantaged the small-scale industries severely. The small industries could not match the quality and price of the mass production of big companies after liberalisation.
- Liberalisation of industries increases the inflation rate. One section of the nation becomes richer while the other section struggles even more to survive.
- Trade liberalization means that firms will face heavy competition from abroad. It can increase dependence on foreign nations for technology, foreign exchange, etc.
- This can result in economic instability as any change in currency in the foreign market will have a major impact on the economy.
- This can result in an increase in acquisitions and mergers. This will make employees of smaller companies less skilled. This can lead to stagnation of productivity.

(b) write short notes on the following terms:

- (i) Sole proprietorship
 - It is where the ownership is characterized by one individual. It is the least complex type of business due to the minimal government regulation on this type of business. Small businesses such as local grocery stores are examples of sole proprietorships. A local grocery store is typically owned by one person who works as the manager and employee. The sole owner is then responsible for all operational aspects of the business.
- (ii) Partnership.

Partnership is where there is agreement between two or parties for a common goal. It can be either general or limited. General partnerships allow both partners to invest in a business with 100% responsibility for any business debts. They don't require a formal agreement. Limited partnerships require owners to file paperwork with the state and compose formal agreements that describe all of the important details of the partnership, such as who is responsible for certain debts.

(iii) Corporation.

A corporation is a business organization that acts as a unique and separate entity from its shareholders. A corporation pays its own taxes before distributing profits or dividends to shareholders.

- (c) The salient features of Uganda's economy.
 - It is dominated by the agricultural sector (predominantly subsistence in nature). Majority of Uganda's population is employed in the agricultural sector. It is also the major source of food and foreign exchange earner for the country.
 - It has small but growing industrial sector. Most of the industries are small and mainly concentrated in urban areas. The few large industries are owned by foreigners. The industrial sector contributes less than 15% of GDP.
 - It is a mixed economy. There is existence of both public and private ownership and allocation of resources. Investments which require huge capital are owned and controlled by the government.
 - It is a dual economy. A dual economy is one where there is co-existence of two contradicting sectors where one is modern and desirable while the other is traditional and undesirable. Uganda is technologically, socially, economically and regionally dualistic in nature.
 - It is an open economy. Uganda interacts with other countries in terms of trade. It exports to and imports from other countries. Uganda's exports are mainly primary products while the imports are mainly oil products, capital and manufactured' goods.
 - It is mainly a dependent economy. Uganda greatly depends on other countries in terms of trade and other resources for survival. It mainly depends on international trade as a source of imports.
 - It is characterized by unskilled and semi-skilled labour force.
 Uganda's labour force is characterized by high levels of illiteracy due to low levels of education and lack of experience for particular technical jobs.
 - It is mainly characterized by high population growth rate. This is due to high fertility rates and lack of effective family planning programs. This leads to high dependence burden and pressure on social services especially in urban areas.

- There is wide spread unemployment and under employment. This is due to limited production, investment and other employment creating activities resulting from the high degree of resource underutilization.
- It is mainly characterized by poorly developed and inadequate socialeconomic infrastructure. This is in form of poor roads, poor health and educational facilities and inadequate power supply which limit investment in the country.
- It is mainly characterized by poor entrepreneurship. Uganda's economy is mainly comprised of incompetent entrepreneurs who lack the required skills to start and sustain business enterprises. This leads to resource misallocation and mismanagement.

(a)

- (i) Define the concept of devaluation of a currency.

 This means to lower the value of the domestic currency in terms of the foreign currency.
- (ii) Discuss the role of capital markets in the development of a nation.
- Mobilization of savings. Capital markets increase the proportion of longterm savings that is channeled through long term investment.
- It is a source of cheap and long-term financing for government and corporations. It offers an opportunity for investors to buy and sell their securities hence earn interest on them.
- It aids in capital formation. In a developing economy, capital markets aid in wealth creation which improves conditions for production hence growth.
- It is a channel savings into efficient investments. The capital gains from prices of securities help in accumulative investment over time that creates opportunities for growth in wealth.
- It helps in regulation of funds. They ensure effective utilization since they are guiding factors for people to channel their funds
- It finances economic growth and development. They create a suitable financial condition to attain investment in infrastructural development which accelerates economic growth.
- (b) Compute the labor force participation rate and unemployment rate for the city. Labour force participation rate= (Labour force/Population) *100 = (2,071,590/3,196,470) *100 = 64.8% Unemployment rate= (Unemployed/Labour force) *100 = (104,960/2,071,590) *100 = 5.1%

- (i) Causes of the persistent unemployment problem in Uganda.
- Rapid growth of population: The fact that population grows faster the rat rate at which employment is created; many people remain unemployed.
- Existence of the defective (poor) education system: The education system is theoretical in nature therefore prepares job seekers instead of job creators. The white-collar jobs are in short supply yet the turnover of the education system is high, leaving many school graduates unemployed.
- Rural urban migration: Due to rural-urban wage gap and other push and pull factors, most people migrate from rural areas to urban centers primarily in search of better wage employment opportunities which are not always available in urban centers. Since the rate of rural to urban migration is higher than the rate of urban employment creation, many migrants from rural areas become unemployed in urban centers.
- Use of inappropriate technology: Use of capital-intensive production technique by some industries reduces the demand for labour hence unemployment.
- Discrimination and sectarianism in labour market: This is based on tribes, gender, religion, political ideologies and many other socio- economic factors. This leaves some members of the society unemployed due to 1ack of connections.
- Seasonal variations in economic activity: This is brought about by climatic changes especially in the agricultural sector leading to seasonal unemployment,
- Lack of information regarding the presence of jobs in the labour market.
 This leads to frictional unemployment.
- Existence of political instabilities in developing countries. Political insecurity destroys productive infrastructures and distorts production activities. This greatly discourages both domestic and foreign investment hence unemployment.
- Lack of serious manpower planning by the government: Governments do not effectively relate training in higher institutions of learning with the available employment opportunities. Consequently, more labour force is produced for certain professions than the country's ability to absorb the trainees. This results into surplus labour supply for professions certain hence unemployment.
- Poor infrastructural facilities: This is in form of poor road network, poor communication facilities etc. which lead to low levels of investments hence unemployment.
- The poor land tenure system: Land tenure system refers to the rights regarding ownership and use of land in the economy. Some people

- have plenty of land which is under-utilized while others do not have land at all and therefore they remain unemployed.
- High levels of poverty: Most people earn low incomes and therefore this leads to low aggregate demand. This discourages investments hence low levels of economic growth and employment.

(a) In relation to the above scenario, explain the salient tax issues to address to the trainees of an organization

Direct tax is one levied on an individual's income e.g. income tax whereas an indirect tax is levied on consumer's expenditure e.g. excise duty, customs duty and VAT.

The main principles of an ideal tax system include:

- Equality: A tax must be imposed in such a way that the incidence of the tax must be equal on different individuals.
- Economy: The cost of collecting and administering should not exceed the revenue gained.
- Convenience: The tax must be imposed in such a way that the time and method of tax payment may be convenient for the tax payer.
- Certainty: The amount of tax and time and method of payment should be certain.
- Productivity: Every tax imposed should give greater income to the government.
- Elasticity: It must be possible to increase or decrease the taxes according to the economic situation of the country.
- Adjustable: A tax should be capable of variation, both up and down according to the changes in policy.
- Flexibility: There must be no hinderances in a way of government to impose tax.
- Simplicity: Tax system must be simple so that people can know where the amounts collected are spent.
- Diversity: There must be different types of taxes so that the burden of these taxes is on different groups of society.
- Impartial: All citizens should be taxed the same.
- Consistency: It should be consistent with the government policy.
- (b) As an expert in managerial economics and public finance, discuss the reasons why a country incurs public debt.
 - To supplement on the government revenue from taxation. Usually, countries do not realize a lot of income from taxation so they incur debt to get enough revenue to meet all government expenditure.
 - The government needs to incur debt to ease the burden of taxation on the citizens in the short run. This is because high taxes may cause citizens to develop resentment towards the government.

- To fill the foreign exchange gap in the short run. Funds borrowed through public debt are used to fill the gap between foreign exchanged needed for the total expenditure abroad and the amount that is realized by a country as exchange receipts from abroad.
- To fill the savings investment gap. This occurs when the country cannot realize sufficient funds for investment purposes from the domestic savings.
- Governments borrow internally so as to control inflation and aggregate demand by reducing the amounts of money in circulation so as to reduce the disposable income and purchasing power.
- To purchase capital goods in an effort to raise technological development as a result of technological transfer.
- Governments borrow to achieve and maintain a given level of employment. Borrowing enables government to raise funds to build hospitals, schools so as to widen employment creation.
- To be able to pay off pressing debts to other countries control especially using low interest loans to finance the high interest rates.
- To build up a lot of foreign reserves enough to facilitate implementation of monetary policy and foreign exchange rate.

- (a) Reasons why economic growth doesn't lead to economic development
 - Economic growth is a narrower concept than economic development. Economic growth refers to an increase over time in a country's real output of goods and services (GNP) or real output per capita income while economic development implies an upward movement of the entire social system in terms of income, savings and investment along with progressive changes in socioeconomic structure of country (institutional and technological changes).
 - Economic growth relates to a gradual increase in one of the components of Gross Domestic Product: consumption, government spending, investment, net exports and Economic development relates to growth of human capital indexes, a decrease in inequality figures, and structural changes that improve the general population's quality of life. However, GDP is a narrow measure of welfare.
 - Growth is concerned with increase in the economy's output and development is concerned with structural changes in the economy which means an increase in output can occur yet no changes in poverty, unemployment.
 - Growth brings quantitative changes in the economy and development brings qualitative and quantitative changes in the economy
- (b) Ways through which developing economies can achieve import substitution strategy of industrialization.

- Protectionism: enforcing tariffs and quotas to make foreign imports more expensive and inaccessible. Such revenue collected from tariffs can be injected into industries.
- Increased taxation: generating funds to subsidize industrial growth.
- Government subsidies for vital industries where the government induces industrialization.
- Nationalization: Transferring private industries into government control.
- Government loans: Government can offer subsidized loans to industries to increase their production.
- Setting up domestic industries in order to create a self-sufficient internal market
- (c) Challenges developing countries often face in the development of appropriate technology so as to participate fully in an increasingly competitive global market.
 - Low levels of research and development: The correlation between investment in research and development and economic growth is well accepted. The greater the investment in R&D, the broader the scope for innovation that can drive growth. Most LDCs, the ratio of expenditure on R&D to gross domestic product remains low. This presents a key hurdle to building competitiveness and capacity to absorb and adapt to existing technologies.
 - Insufficient investment in capacity building: Modern technologies require a set capacity to consider hardware as well as software issues. Although investment in technological infrastructure is a prerequisite, investing in capacity-building to adapt to existing technology is just as important.
 - Low education and unskilled workforce: Most technologies from abroad for the growth of the industrial base require an educated and skilled workforce (science-literate citizens). This is key to advancing new technologies. LDCs are facing such obstacles.
 - In terms of the hardware obstacle, the lack of high-speed connectivity in LDCs poses a major challenge. Inadequate connectivity prevents access to the most promising broadband applications for education, health, finance and other sectors, as well as to global and regional knowledge networks. Most LDCs face great difficulties in making broadband Internet access available and affordable for all.
 - Outdated and inefficient technologies: This is due to lack of investment in technological infrastructure, skilling personnel and adaptation hence lagging behind.

TEST PAPER 10 SOLUTIONS CTA 4 - MAY 2024

Solution 1(a)

Role of price mechanism in resource allocation:

- Ideal allocation: This system ensures ideal allocation of resources. It means resources are used to maximize the production of goods from available resources.
- Price mechanism promotes consumer sovereignty. Consumers demand through prices is often followed by the producers in their production decisions.
- Automatic adjustment: This system brings automatic adjustment between demand and supply and helps to establish an equilibrium between them.
- It ensures better quality of goods. Due to the high levels of competition among producers, they produce better goods to increase on their market share.
- Incentive Device: Rising prices give a profit incentive for producers to produce more of a good or service (due to increased profits).
- Maximum gain: This system is helpful to utilize the resources of the country for the maximum gain. It tends to harmonize the desire of the entrepreneur to get maximum profit and the desire of consumers to achieve maximum possible satisfaction.
- The government incurs no cost of administration because the market system is automatic and doesn't require government intervention.
- Gives a sense of direction to producers: The price mechanism tells producers what consumers want. For example, an increase in demand for a good or service raises its price (because the demand curve shifts) and encourages firms to expand their supply, while a decrease in demand lowers the price and causes firms to contract their supply.
- It leads to democratization of economic power between individual households and producers who make decisions basing on market-based prices and demand.

- (b) Increased crime: An economy with income inequality tends to have higher crime rates. The disadvantaged members of a society may be more likely to suffer from resentment and hostility as a result of their economic position or competition over scarce jobs or resources, resulting in a higher propensity for criminal behavior.
- Decreased Health: The disadvantaged members of country are subject to disproportionate occurrence rates of certain kinds of illnesses. Access to quality health care and healthy food is sometimes limited or unavailable for poor individuals. The result of a substantial poor population, a defining feature of economic inequality, is a less effective lower-income work force, higher disease and mortality rates, higher health care costs, and progressively deepening poverty for afflicted groups.
- Reduced welfare spending and public investment: Since a greater share of the income distribution is earned by the very wealthy, governments have less income available to fund education, public amenities, and other services that the poor rely heavily on. This creates social separation, whereby the wealthy opt out in publicly funding services because their private equivalents are of better quality. This causes a cycle of increasing income inequality.
- Increased political inequality: When income distribution becomes concentrated in a small number of hands, political power tends to become skewed in favor of that small wealthy group. High-income groups are able and incentivized to manipulate government in their favor through both legal processes and through corrupt practices. Impoverished or working-class groups are simultaneously less able to become educated or participate in the political process as economic means become increasingly scarce. Wealthy groups receive political advantages in several different ways.
- Decreased levels of education: With income inequality, the average level of education decreases while the number of educational elites increases. Absent private or public scholarship programs, the poor are unable to afford to pay for education or spend the time in school that could have otherwise been spent working.
- Reduced economic growth: The more income inequality reaches a certain level it reduces growth. The growth rate of an economy would be higher if income inequality not increased. Consumer spending is good for economic growth but rising income inequality shifts more money to the top of the income distribution, where higher income individuals have a much smaller propensity to consume than lower-income individuals.
- Decreased innovation: Increasing inequality leads to economic instability which harms innovation. Countries with the highest inequality have been found to be the least innovative in terms of generating new ideas and owning what they produce.

(c)

(i) Average product

It is a measure of the output produced per unit of input. It is the total product divided by the quantity used of the input.

(ii) Marginal product

It is the change in the total output attributable to the last unit of an input. For instance, marginal product of capital is the change in the total output divided by the change in capital.

(iii) Diminishing marginal returns

It is the range of input usage over which the marginal product declines. It's one of the phases of marginal returns.

Solution 2(a)

 (i) Price control means government mandated minimum or maximum prices set for specific goods and services. It implies government interference in price setting.

(ii) Reasons why government should regulate prices of commodities in an economy:

- Prices of agricultural products fluctuate: Price fluctuations cause problems for consumers and farmers. So, prices must be fixed to protect the interest of consumers.
- To check inflation: Due to changes in prices, inflation can occur. Hence, price controls would enable the poor people to maintain their standard of living at a reasonable level.
- Unstable market forces: In cases where they are not working effectively, and prices are raised by traders unnecessarily, price controls would help stabilize such in a market.
- Encourage the production of import substitutes: price controls would imply stable and favourable prices and this would encourage people to locally produce. This would then improve the balance of payments.
- Reduce monopoly tendencies: A few persons would establish their monopolies due to control over a substantial part of supply of a particular

product. Price controls would reduce such tendencies hence protecting the consumers against high prices.

 To discourage income inequality: Since a few would own a major part of the national income from monopolies, this would lead to income inequalities. Hence price controls would help to distribute incomes evenly.

(b)Evaluating the projects using NPV criterion:

	Net Cash Flows (UGX '000')			Present Value	
	Machine A	Machine B	Discount Factor	Machine A	Machine B
Initial Cost	50,000	45,000	1	- 50,000	- 45,000
Year 1	25,500	12,500	0.909	23,180	11,363
Year 2	24,500	15,500	0.826	20,237	12,803
Year 3	17,000	21,000	0.751	12,767	15,771
Year 4	14,000	38,000	0.684	9,576	25,992
			NPV	15,760	20,929

From the above calculations, Machine A has a net present value of UGX 15,760,000 while Machine B has a net present value of UGX 20,929,000. Hence, I would advise the firm to consider procurement of Machine B since it earns a higher net present value making it more profitable.

Solution 3(a) Roles of central bank in the development of an economy:

- Issuance of currency: The printing and issue of currency is one of the main functions of a central bank. This is to bring uniformity, have better control over money supply, increase public confidence in the monetary system and control the lending of commercial banks.
- Perform roles for the government: It receives deposits, cheques and drafts in the government account, gives short term and long-term advances to the government, provides foreign exchange to government etc.
- Perform roles for the commercial banks: it is the custodian of the reserves of commercial banks, central clearing house, can discount bills of exchanges, maintain foreign exchange reserves at a desirable level.
- Custodian of national reserve of foreign exchange: it can adopt the exchange control system hence maintaining the foreign exchange reserves at a desirable level.
- Controller of credit: It regulates the volume of credit and currency in a country by setting reserve ratios, discount rates, open market operations and this stabilizes the internal price level of a country, foreign exchange rates and the money market.

(a)

(i) Terms of trade.

This is a price index that shows a country's export prices relative to its import prices. It shows the ratio at which different goods and services are exchanged between two countries.

(ii) Balance of payment.

This is a record of transactions between countries involved in international trade. It shows the receipts from exports and inflows of capital investments and spending on imports and outflows of capital investment.

(b)

- Increased money supply which is not backed by output. The total amount of money in circulation including cash, coins and bank balances; if money supply increases faster than the rate of production, it leads to inflation where too much money is buying few goods.
- Demand pull effects (increased wages without increased output). The demand for certain goods and services is greater than the economy's ability to meet those demands. When this demand outpaces the supply, there is an upward pressure on prices causing inflation.
- National Debt financed by printing money. This makes people have more money and when supply stays consistent, it leads to price increases.
- Cost-push effects (Increased prices of inputs eg power). Increased prices when the costs of wages and raw materials go up hence these costs are often passed down to consumers inform of high prices.
- Exchange rate depreciation. This makes the country's exports less expensive encouraging foreign nations to buy more of the devalued goods. This makes citizens buy goods at high prices.
- High prices of imported raw materials (imported inflation). When the price
 of raw materials of all imported goods increases. This increases the prices
 due to increased cost of imported products.
- Increased government expenditure: The increase in government expenditure would lead to an increase in the aggregate demand for goods and services and hence prices would go up.

- Lack of supply: The shortage of goods result in rises in the price level. This shortage can be due to decrease in production and for agricultural production, it can be due to changes in climate.
- Increase in cost of production: When the cost of productions rises, it forces the producers to rise the prices hence inflation. The cost of production can rise due to high wage levels, high cost of raw materials etc.
- Increase in population: The rapid rising population puts pressure on the demand for goods and services. If the supply of goods and services fail to match with the demand, the general price level goes up.

Solution 4(a)

Sources of government revenue

- Taxes: This includes direct as well as indirect taxes. direct taxes levied on the direct income and indirect taxes levied on the goods and services consumed.
- Fees: Fees are charged and become payable whenever you avail any service rendered by the government. This includes education fees, fees paid to get certain certificates and licenses, property registration fees, business registration fees, etc.
- Fines and Penalties: Fines and penalties are levied on those who break the country's laws and rules. For example, tax evasion attracts severe penalties from the government. Violation of environmental laws or corporate governance laws is punishable with fines in addition to jail term.
- Gifts, Grants and Donations: The government often receives gifts and donations from the citizens of the country and that serves as one of the sources of public revenue. The government may also receive grants from other countries' governments or institutions set up to aid countries, such as the United Nations.
- Special Evaluation: Special evaluation or assessment is the payment made by property owners in a particular locality in exchange for some special facilities extended to them by the government. For example, local bodies can levy a charge against water supply to the area, or for providing underground drainage pipe system to a gated community, etc.
- Public Companies Surplus: The government owns and operates many public companies that offer services to the citizens of the country.

(i) Reasons why Uganda's taxable capacity is still low:

Taxpayers' psychology (negative attitudes): The way people feel and think about taxes can have a big impact on whether they follow the rules and pay their taxes willingly. Negative attitude can affect a person's ability to pay taxes, including not seeing the importance of paying taxes, lack of trust in the government, and thinking that the tax system is unfair.

- High levels of Inflation: Due to inflationary factors, the prices of goods and services increase. Thus, the real income of the country is reduced and the taxable capacity also reduces in that proportion.
- Nature of the government: Assumptions that country that is ruled by a dictatorial type of government makes the taxable capacity of the people lower.
- State of economic development: Sine this is a developing country, the stage of the economic development of a country will affect its taxable capacity.
- Unfavorable taxation System: Uganda is described to have a tax system that produces adverse effects on people's productive capacity, then its taxable capacity will inevitably reduce.
- High government expenditure: If the governments' major part of its expenditure to is on nonproductive areas like arms and ammunition hence it does not encourage production then the taxable capacity will be lower.
- Low levels of income and wealth: Uganda is characterized with low levels of income and wealth and this will imply low taxable capacity.
- Uneven wealth distribution in the Country: Since the wealth of a country is unequally distributed, then its taxable capacity will be low since most of the rich do not pay taxes.
- High levels of population: While keeping other things constant, if the population size increases, the taxable capacity of the country will decline.
- Low standard of living: The low standard of living of the people implies their productive power will also be low. It means that the income level of these people will be low, decreasing their capacity to pay taxes.
- Income instability: Uganda lacks stability in the national income. Since the majority of the people fulfil their livelihood from agriculture and incase if instabilities in production. Thus, the taxable capacity of in such instances is usually low.

(c) Strategies in which public management is carried out:

- Use of the surplus budget: If the budget of the government is a surplus during a particular year, this surplus can be used to pay public debts.
- Sinking fund: Government can create a sinking fund where every year, a specific amount is deposited and after some time, the fund can be used to pay a public debt.
- Capital levy: This is by imposing a special tax to high income earners or rich persons and use the tax revenues generated to repay debt.
- Conversion: Government gets a new loan at a low rate of interest and this can be used to repay any previous loan carrying a high interest rate.

 Repudiation: This is where a government repudiates its obligation and refuses to pay any debt.

Solution 5(a)

(i) Stages of economic growth according to Rostow:

- **The traditional society**: The structure is developed within limited production functions on pre-science and technology. To a great extent, the productivity depends on agriculture.
- The pre-conditions to take-off/ transition stage: This will bring an economy in a state of transition. Here, the pre-conditions are developed like change in attitudes, entrepreneurs appear, rise in investments etc.
- The take-off stage: It covers a relatively short period and it is the interval during
 which the rate of investment increases in such a way that the real output per
 capita rises and this initial increase carries with it radical change in technologies of
 production.
- **The drive to maturity**: This describes a long interval of sustained growth. During this time, the economy progressively grows and it drives to extend modern technology in the production.
- The age of high mass consumption: It is a stage of high living. The leading sectors shift towards durable consumer foods and services.

(ii) Characteristics of underdeveloped economies:

- Low per capita income: In under-developed countries, per capita income is low as compared to developed countries. Due to low income, savings are too low and it results in low investment which is the main cause of low process of development.
- Population pressure: In under-developed countries, the rate of population growth is too high. This slows the process of development.
- Backward population: Due to low levels of literacy, the population in under developed economies is backward. Workers are not trained and this leads to low efficiency. Also, the rate of unemployment being high.
- Dependency on one sector: The economy of an under-developed country depends on only one sector and other sectors remain under-developed.
- Under-developed resources: Natural resources are not fully utilized and this can be due to lack of technology and capital to enhance resource utilization.
- Lack of capital: Short of capital is a serious problem in under-developed economies. This leads to low saving and investment levels.

 Unstable export sector: The exports of most under-developed economies consist of raw materials whose prices are unstable on the international market.

Capital-intensive technique is one that involves the use of greater amount of capital and few labourers while **labor-intensive technique** is one which uses more labourers and less capital (a few simple tools used).

(i) Factors that determine the choice of a production technique for a producer:

- Factor prices: Factor prices play an important role in the choice of technique. If capital is available in abundance and labour is expensive, then capital intensive technique will be adopted. On the other hand, if there is shortage of capital but labour is very cheap, then labour intensive technique will be adopted.
- Factor efficiency: The efficiency of factors also determines the choice of technique. If capital is more efficient compared to labour, then capital intensive technique will be followed and vice versa. The use of technology can increase the production at a higher rate.
- Substitution: The rate at which capital and labour can substituted affects the choice. For a product that can be made by manual labour or a machine, in such an instance, they can be substituted. But if the product can be done by only one method, then there is no substitution.

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TEST PAPER 11 SOLUTIONS CTA 4 - DECEMBER 2024

Solution 1

(a)

- (i) Production refers to the process of creating goods and services using various factors of production such as labor, capital, land, and entrepreneurship; while
 - consumption is the use of goods and services by households and firms to satisfy their needs and wants.
- (ii) Illustrate how changes in production levels can impact the consumption patterns.

Production and consumption are interconnected, as production creates income, which in turn is used for consumption i.e. the level of production in an economy influences the level of consumption, and vice versa. For example, an increase in production can lead to higher incomes, which may result in higher consumption levels. Similarly, an increase in consumption can drive higher demand for goods and services, potentially leading to increased production

On the side of externalities, a production externality can occur when the production activities of a firm have an impact, positive or negative, on other firms or individuals e.g. pollution generated by a production activity and a consumption externality will arise when the consumption of a good or service by one party affects the well-being of others e.g. secondhand smoke from a consumer's cigarette.

(b)

- (iii) Explain the different demand forecasting techniques that organizations can use for managerial decision making.
 - Generally;

Qualitative methods are often used when historical data is limited or unreliable such as market research and expert opinion.

Quantitative methods rely on historical data and statistical models to make forecasts such as time series analysis, regression analysis, and econometric models.

More detailed,

- Trend Analysis: This method uses historical data to identify and project patterns or trends in demand over time. It is a simple and effective technique for small businesses with limited data.
- Market Surveys/research: Conducting surveys to gather information directly from potential customers can provide valuable insights into future demand, especially for new or unique products or services.
- ✓ Jury of experts/expert opinion: Involves a team of experts on the product, market to come up with demand forecasts.
- Sales Force Composite/executive: Involves gathering input from the sales team to create a comprehensive demand forecast. This method can be particularly useful for small businesses with a dedicated sales force.

- ✓ Econometric Models: While more complex, econometric models can provide accurate forecasts by incorporating various economic factors that influence demand. This method may be suitable for small businesses operating in dynamic economic environments.
- Combining Multiple Methods: Using a combination of forecasting methods can provide a more comprehensive and accurate demand forecast, helping small businesses mitigate the limitations of individual techniques

(c)

(i) Calculate the income elasticity of demand for smartphones. Let *YED* be the Income elasticity of demand

$$YED = \frac{\Delta Q}{\Delta Y} \times \frac{Y}{Q} = \frac{(185 - 150)}{340,000 - 300,000} \times \frac{300,000}{150}$$
$$YED = \frac{35}{40,000} \times \frac{300,000}{150} = 1.75$$

(ii) YED is a positive value. This means an increase in incomes led to an increase in demand for smartphones. Hence a smartphone is a normal good.

Solution 2

(a)

- ✓ It reduces excess capacity in the economy by putting idle resources into use to take advantage of a high minimum price.
- Minimum price results in increased investment. Since it ensures price stability, investors become confident thereby increasing the scale of their investments.
- It encourages mass production since producers are induced to produce the commodity in large amounts due to a reasonable minimum price that is set above the equilibrium.
- The unification of agricultural wholesale markets in a study showed an average increase in the modal prices of maize, leading to improved profit margins for smallholder farmers.
- ✓ Employment opportunities are increased with greater investment.
- ✓ Price fluctuations are controlled bringing economic stability that induces long-term planning and high output.
- Government intervention in the form of price floors can lead to surplus production if the floor price is set above the equilibrium price, potentially leading to market distortions and increased consumer prices.
- Additionally, high market prices resulting from government minimum grain prices that are above competitive benchmarks can lead to cost-push inflation and impact the viability of maize value chain industries and consumer prices.
- The surplus output realized due to overproduction can cause storage problems which can lead to wastage of output and resources committed to storage of the surplus.

- They can also lead to high costs of production where minimum prices are set on factors of production which discourage production.
- ✓ It is costly to the government in terms of price support and administrative costs to ensure the minimum legislated price is adhered to.

(b)

(i) Find the firms' Fixed Costs.

 $Total\ Costs = Fixed\ Costs(FC) + Variable\ Costs(VC)$ Fixed costs = UGX 1,000

(ii) Variable Cost function VC(q) = TC - FC

$$VC = (1000 + 5q + 0.1q^2) - 1,000$$

= $5q + 0.1q^2$

Average Variable Cost function (AVC)

$$AVC(q) = \frac{VC}{q} = \frac{5q + 0.1q^2}{q} = 5 + 0.1q$$

- (c) Reasons why a country would carry out disinvestments, using Uganda as a case study.
 - Budgetary Constraints: Governments may engage in disinvestment to raise funds quickly, especially when faced with budgetary constraints or fiscal deficits. Selling state-owned assets can provide an injection of cash that can be used to fund government expenditures or reduce debt.
 - ✓ Privatization: Disinvestment often accompanies privatization efforts, where state-owned enterprises are sold to private investors or corporations. Governments may believe that private ownership will improve the efficiency, productivity, and profitability of these enterprises. Privatization can also reduce the financial burden on the government by transferring operational costs and risks to the private sector.
 - Market Liberalization: Disinvestments can be part of broader market liberalization efforts aimed at reducing government intervention in the economy. Governments may believe that reducing their ownership in industries and sectors will encourage competition, innovation, and economic growth by allowing market forces to operate more freely.
 - Improving Corporate Governance: Governments may divest from stateowned enterprises to improve corporate governance practices. By reducing state control and introducing private ownership, companies may become more accountable, transparent, and responsive to market demands. This can lead to better management practices and more efficient allocation of resources.
 - ✓ Focus on Core Functions: Governments may choose to disinvest from non-core or underperforming assets to focus on their core functions, such as providing essential public services, infrastructure development, or social welfare programs. Selling off non-essential assets allows

- governments to streamline operations and allocate resources more effectively.
- Reducing Political Interference: State-owned enterprises are often subject to political interference, which can impede their efficiency and competitiveness. Disinvestment can reduce political influence on business decisions, allowing enterprises to operate based on market dynamics rather than political considerations.
- Encouraging Foreign Investment: Disinvestments can attract foreign investors by offering opportunities to acquire stakes in previously stateowned enterprises or assets. Opening up sectors to foreign investment can stimulate economic growth, facilitate technology transfer, and create employment opportunities.
- Debt Reduction: Governments may use proceeds from disinvestments to retire debt obligations or invest in critical infrastructure projects. By reducing debt levels, governments can improve fiscal stability, lower borrowing costs, and enhance creditworthiness in financial markets.

- (a) The different growth strategies that can encourage economic growth and development:
 - Big Push Theory: The Big Push theory suggests that developing economies often require a coordinated and simultaneous increase in investment across multiple sectors to overcome the barriers to development. According to this theory, individual investments in isolation may not be sufficient to kickstart development due to various coordination failures and externalities. Therefore, a "big push" involving large-scale investments in infrastructure, education, healthcare, and industry is needed to trigger a self-sustaining process of economic growth.
 - Balanced Growth: Balanced growth refers to a situation where all sectors of the economy grow at similar rates over time. In a balanced growth scenario, the development of agriculture, industry, and services occurs simultaneously and harmoniously. The concept of balanced growth was prominent in the development strategies of many countries. Governments often pursued policies aimed at achieving balanced development across different sectors to ensure equitable growth and reduce disparities between rural and urban areas.
 - Unbalanced Growth: Unbalanced growth refers to a situation where different sectors of the economy grow at different rates. This could occur due to various factors such as technological advancements, changes in consumer preferences, or government policies favoring specific industries. Some economists argue that unbalanced growth may be a natural outcome of economic development, as certain sectors may experience faster growth rates than others due to comparative advantages or economies of scale. It can lead to specialization, increased efficiency, and overall economic prosperity if managed effectively. However, unbalanced growth may also worsen income

inequalities and regional disparities if certain sectors or regions lag behind others in terms of development.

- (b) Definition of aggregate demand and its computation
 - Aggregate demand is the expenditure on goods and services produced within an economy. It includes all expenditure by all consumers, business firms, government agencies and net expenditure on exports. In a closed economy, AG DD = C+I+G. In an open economy, AG DD = C+I+G + (X-M).
- (ii) Computation of Aggregate Demand, AD AD = C+I+G+(X-M)= 500 + 0.8Yd+200+300+50 - 0.1Y =1,050+0.8Yd- 0.1Y
- (c) Role of capital markets in the development of a nation.
 - ✓ Mobilization of savings. Capital markets increase the proportion of long-term savings that is channelled through long term investment.
 - ✓ It is a source of cheap and long-term financing for government and corporations. It offers an opportunity for investors to buy and sell their securities hence earn interest on them.
 - It aids in capital formation. In a developing economy, capital markets aid in wealth creation which improves conditions for production hence growth.
 - ✓ It is a channel savings into efficient investments. The capital gains from prices of securities help in accumulative investment over time that creates opportunities for growth in wealth.
 - ✓ It helps in regulation of funds. They ensure effective utilization since they are guiding factors for people to channel their funds.
 - It finances economic growth and development. They create a suitable financial condition to attain investment in infrastructural development which accelerates economic growth.

Solution 4

(a)

(i)

(i) Use examples to distinguish between tax avoidance and tax evasion.

Tax avoidance is a situation where the tax paying unit reduces its tax liability by exploiting loopholes in the tax law for example by avoiding activities that are taxed or taking an action designed to lower the tax burden. While

Tax evasion is the defaulting or deliberate refusal of the tax payer to pay all or part of a tax assessed on him for example not declaring income or property so as to pay less or no tax at all.

(ii) Explain the reasons why Uganda has a low taxable capacity.

- ✓ Widespread poverty leads to low taxable capacity because the majority of the people have low levels of income falling below the threshold so the government has a few people to tax.
- High-income disparities: there is a big income gap between the rich and the poor. The poor are so poor that they have almost nothing for the government to tax. The few rich people have a lot of economic and political influence that they do not pay all the taxes and at the rates they are supposed to pay.
- Low level of industrialization. There are few industries since the agricultural sector is dominant and this means low incomes that have low tax liability leading to low taxable capacity.
- Wide spread unemployment: a large number of people is unemployed and has no income that can be taxed leading to low taxable capacity.
- Poor tax administration: the poor tax assessment, collection and low level of administration competence results into high levels pf tax evasion and tax avoidance leading to low levels of taxable capacity.
- Poor sensitization of the masses on the need to pay taxes and the responsibility of citizens and on the use of taxes. Some taxes are hard to understand as a result there is high level of resistance by tax payers leading to low taxable capacity.
- High levels of tax evasion and avoidance: the low level of benefits seen by the public from the taxes leads to high evasions and avoidance. The public can argue that there is no need to pay taxes where they see no service at all. This leads to low taxable capacity.
- ✓ High levels of corruption of tax officials who help tax payers to falsely reduce their tax liability in exchange for kickbacks leading to loss of revenue by the government.
- Poor population structure: the population is dominated by the young, women which leaves a few individuals liable to taxation.
- (b)(i) Explain the principle and assumptions of comparative advantage.

The principle of comparative advantage states that each country will benefit if it specializes in the production and export of those goods that it can produce at relatively low cost and each country will benefit if it imports those goods which it produces at relatively high cost.

The following are the assumptions of comparative advantage:

- ✓ Existence of 2 countries in trade.
- ✓ Production of two commodities.
- ✓ Full employment of resources in both countries.
- ✓ No trade barriers.
- ✓ No transportation costs.
- ✓ Constant technology.
- ✓ Comparative advantage is constant in both countries.
- (ii) The data below shows the labour requirements for production of one unit of each good in Uganda and Kenya.

	Labour(man-hours)			
	Uganda	Kenya		
Food	1	3		
Clothing	2	4		

- ✓ In Uganda, it takes 1 hour of labour to produce a unit of food while a unit of clothing requires 2 hours of labour.
- ✓ In Kenya, the cost is 3 hours of labour for food 4 hours of labour for clothing.
- ✓ It is clear, Uganda has absolute advantage in both goods for it can produce either one with greater absolute efficiency than can Kenya.
- ✓ Uganda has comparative advantage in food while Kenya has comparative advantage in clothing.
- (c) As a case study of the East African Community (E.A.C), explain the objectives of such a regional body.
 - ✓ To create a monetary union by sharing a common currency and monetary policies.
 - ✓ To increase employment opportunities by allowing free movement of people across the region.
 - ✓ To create a common market and foster trade within the region.
 - ✓ To create trade and investment partnerships within the region.
 - ✓ To improve on the standards of living of the people in the region.
 - ✓ To foster the establishment and expansion of the industrial sector in the region.

- (a) The common indicators of underdeveloped economies.
 - Low GDP per capita: Underdeveloped economies often have low levels of Gross Domestic Product (GDP) per capita, indicating limited economic output on a per-person basis.
 - High poverty rates: Underdeveloped economies typically have high levels of poverty, with a significant portion of the population living below the poverty line and struggling to meet basic needs such as food, shelter, and healthcare.
 - Limited access to education: Education is a critical indicator of development. Underdeveloped economies often have low levels of literacy and limited access to quality education, particularly among marginalized groups and in rural areas.
 - High unemployment and underemployment: Underdeveloped economies often suffer from high rates of unemployment and underemployment, with many individuals working in low-paying informal sectors with little job security or benefits.
 - ✓ High population growth rates: underdeveloped economies have high population growth rates due to high birth rates which results into high dependence ratio and the burden undermines development.

- Poor infrastructure: Underdeveloped economies often lack basic infrastructure such as roads, transportation networks, electricity, and sanitation systems, which can hinder economic development and quality of life.
- ✓ Limited access to healthcare: Healthcare services are often inadequate in underdeveloped economies, with limited access to medical facilities, trained healthcare professionals, and essential medications.
- High infant mortality and low life expectancy: Underdeveloped economies tend to have high rates of infant mortality and low life expectancy due to inadequate healthcare, poor nutrition, and other socioeconomic factors.
- ✓ Income inequality: Underdeveloped economies often exhibit high levels of income inequality, with wealth and resources concentrated in the hands of a small elite while the majority of the population struggles to make ends meet.
- Dependence on primary sectors: Underdeveloped economies may rely heavily on primary sectors such as agriculture, mining, and forestry, which offer limited opportunities for value addition and technological advancement.
- Polity instability: They are characterized by unstable governments with political instability due to poverty and dictatorship.
- ✓ Vulnerability to external shocks: Underdeveloped economies are often more vulnerable to external economic shocks such as fluctuations in commodity prices, natural disasters, and global economic downturns due to their limited capacity to diversify and adapt.
- (b)
- (i) Explain the meaning of the national budget as an instrument of economic and social policy.
 - A national budget is a statement or plan showing the estimate of revenue the government expects to raise in a given financial year and how it plans to spend it in a given fiscal year. Generally, it shows the total expected receipts by the government and the total expected revenue of the government in a given fiscal year.
- (ii) Discuss the components of a national budget.
 - The social, political and economic objectives of the budget i.e. what the economy needs to achieve(goals) in all spheres of the economy.
 - The monetary and fiscal strategies to be undertaken in the stated fiscal year i.e. the policies on tax reforms, interests' rates, in the banking and business sectors.
 - ✓ Its total revenue to be raised in that fiscal year and how it's to be raised i.e. the targeted revenue for the country and the different ways to attain the target like government expenditure reductions.
 - The total expected expenditure, the ways and nature of government spending in that financial year. the total amount of money that the government plans to spend during the fiscal year.
 - ✓ The current GDP in the country and the growth rate of GDP.

- ✓ The last years balance of payments positions i.e. the foreign exchange earnings and how to improve it.
- The performance of the economy in the previous fiscal year in terms of output per sector, growth rate and social economic performance.
- ✓ The contribution of various sectors like agriculture, industry and their growth rate for the past years and how they are to help improve on their performance in the current fiscal year.
- ✓ It shows the current rate of economic growth and the targeted rate of economic growth.