BMGT E 1035 – Business Economics

No of Questions : 08 (Eight)  Time : 03 hours

(Calculators are allowed to use)

(i) Question paper comprises of three parts : PART I, PART II and PART III
(ii) Answer all questions in PART I
(iii) Write the answer for the questions in PART I in the question answer book let.
(iv) Answer 04 questions including at least one question from PART II and PART III

Part I

(01) Which of the following situations would account for a movement from point M on production positivity curve \(\text{PPC}_1\), to N on \(\text{PPC}_2\)

(a) A more efficient allocation of resources between agricultural goods and industrial goods.
(b) Technological advances in both agriculture and industry
(c) A reduction in unemployment in both agriculture and industry.
(d) Introduction of government subsidies to agriculture.

(02) Which of the following is a correct representation of the budget constraint in an economy with only food and shelter, where \(M = \text{income}, Pf = \text{price of food, Ps = shelter price} S = \text{the quantity of shelter, and F = the quantity of food,}

(a) \(M = Pf(S) + P,(F)\)
(b) \(S = M/P - P/P(F)\)
(c) \(F = M(P) + P/P(S)\)
(d) None of the above is correct.
(03) The expansion path explains,
(a) the least costly combination of inputs required to produce various levels of output.
(b) the firm's demand curves for the inputs.
(c) the various combinations of inputs that can be used to produce a given level of output
(d) is described, by each of the above statements.

(04) Which of the following is not one of the conditions that must be realized before a seller wants to make price discrimination workable?
(a) The buyer must be unable to resell the product
(b) The product must be a service
(c) The seller must have some degree of monopoly
(d) The seller must be able to segment the market.

(05) The kinked demand curve model predicts that the price of a product sold in an oligopolistic market will;
(a) Tend to fluctuate greatly
(b) Tend to be sticky and unresponsive to small changes in cost and demand conditions.
(c) Be set by the biggest firm in the market.
(d) Be controlled by a cartel.

(06) Expansionary Fiscal policy will result,
(a) $G \uparrow \rightarrow \text{AD} \uparrow \rightarrow \text{IS Shift to left} \rightarrow Y \uparrow \rightarrow mt \uparrow \rightarrow \text{msp} \downarrow \rightarrow r \uparrow$
(b) $G \uparrow \rightarrow \text{AD} \downarrow \rightarrow \text{IS Shift to right} \rightarrow Y \downarrow \rightarrow mt \downarrow \rightarrow \text{msp} \uparrow \rightarrow r \uparrow$
(c) $G \uparrow \rightarrow \text{AD} \uparrow \rightarrow \text{IS Shift to right} \rightarrow Y \uparrow \rightarrow mt \uparrow \rightarrow \text{msp} \downarrow \rightarrow r \uparrow$
(d) $G \uparrow \rightarrow \text{AD} \uparrow \rightarrow \text{IS Shift to right} \rightarrow Y \uparrow \rightarrow mt \downarrow \rightarrow \text{msp} \downarrow \rightarrow r \downarrow$

(07) An increase in government expenditure shifts IS curve to rightward, by $\alpha \Delta G$, (Where $\alpha$ is the Expenditure Multiplier) with the actual change in output closely approximating the Schedule's shift when,
(a) The LM is relatively flat and IS is steeply sloped.
(b) The LM is vertical and IS is steeply sloped
(c) The LM is relatively flat as is IS
(d) The LM is steeply sloped and the IS is relatively flat.
(08) A particular economy has exports worth Rs: 40 billion and imports worth Rs. 175 billion, consumer spending adds up to Rs. 2343 billion, Gross Investment is Rs. 379 billion and government expenditure Rs. 865 billion. This means that GDP equals,
(a) Rs. 3722 billion
(b) Rs. 3452 billion
(c) Rs. 3802 billion
(d) cannot calculate GDP because do not have adequate figures.

(09) A person had an income of Rs. 20,000 last year and paid Rs. 10,000 in tax. This year, the person had an income of Rs. 100,000 and paid Rs. 30,000 in tax. The person's marginal tax rate is;
(a) 25%  (b) 30%  (c) 50%  (d) 100%

(10) Cyclical unemployment refers to;
(a) That portion of the labour force consisting of individuals who qualify for employment but who are temporarily out of work.
(b) That portion of the labour force consisting of individuals who are unemployed because of business cycle fluctuations.
(c) That portion of the labour force consisting of individuals who would like to work but who lack skills and other attributes needed to obtain work.
(d) The natural unemployment rate.

Write the answers for the questions in the space provided below for each question.

(11) What are the properties of indifference curve

(12) Optimum Plant size means.

(13) Derive LM equation for r (Interest rate)
(14) Differentiate "Full crowing out effect" from "No crowing out effect"

(15) Briefly explain the differences between frictional unemployment and structural unemployment.

(02 each, 10 marks)
(Total 20 marks)

PART II

(02) a) "Economics help to predict the market conditions with high reliability while reducing the uncertainty and risk." With reference to the above statement explain how business economics contribute to managerial decision making process.

(07 marks)

b) Use supply and demand diagrams to explain the effect of each of the following on the price and quantity in the market for fish.

(i) Scientists announce that they have discovered that people who eat fish are less likely to get cancer.

(ii) Radar technology makes it easier to catch fish.

(04 marks)

c) When the price level of coffee changes from Rs. 50 to Rs. 70, the quantity of tea sold increases from 2500Kg to 5000Kg. Calculate the Arc cross elasticity for tea and comment on your answer.

(03 marks)

d) "Eventhough the income effect outweighs the substitution effect of an inferior good, for a normal good that is not applicable". Do you agree with this statement? Graphically illustrate total effect of a normal good when the price falls of one commodity.

(06 marks)
(Total 20 marks)

(03) a) Graphically illustrate both shortrun and longrun average cost curves and explain the factors affect to determine the shapes of each and every cost curve.

(06 marks)
b) Suppose that Total Cost (TC) depend on number of units produced as given below.

\[ TC = a + bQ - CQ^2 + dQ^3 \]

Calculate TFC, TVC, AFC, AVC, AC and MC

(03 marks)

c) Briefly explain the difference between Marginal Rate of Technical substitution (MRTS) and Marginal Rate of Substitution (MRS)

(05 marks)

d) "Production function describes the technical relationship between inputs and outputs. In the short-run at least one of the input is fixed; If the firm wants to increase output it can only do so by increasing the quantity of the variable factors of production". Explain graphically above statement while highlighting the optimal production stage of the short run.

(06 marks)

(Total 20 marks)

(04) a) Derive the short run supply curve of the firm which operates in the perfectly competitive market structure by using graphs.

(05 marks)

b) "The validity of the claim that monopolistic competition is inefficient depends on a comparison of the benefits derived from product differentiation and the increased costs caused by differentiated products." Justify above statement comparing the monopolistic competition with perfect competition.

(06 marks)

(09 marks)

(Total 20 marks)

c) If the demand function of Perfect Competitive a firm is \( P = 1000 - 0.4 \ Q \) and the total cost function is \( TC = 50Q + 20,000 \)

(i) Compute the profit maximizing output and the price level of the firm by using the marginal approach.

(ii) Show this using a diagram.

(iii) Find out the total profit/loss of the firm at this level of output.

(09 marks)

(05) a) A monopoly firm has to supply two markets with two different demand functions.

\[ Q_1 = 42 - 0.2 \ P_1 \]
\[ Q_2 = 100 - 0.4 \ P_2 \]

Firms total cost function is given as,

\[ TC = 4000 + 20Q \]
Calculate followings.

(i) Allocation of output between two markets and prices for two markets. 

(ii) Total profit. 

(07 marks)

b) Assume that "XYZ" is the only firm operating in the market for commodity "B". Graphically illustrate the short run and long run equilibrium of XYZ. 

(06 marks)

c) The leader's demand curve can be seen as that portion of market demand unfilled by the other small firms. It is market demand minus other small firms supply." According to above statement briefly explain how the dominant firm will determine supply. 

(07 marks) 

(Total 20 marks)

(06) a) Explain how "Injection - withdrawals equality" is established according to circular flow of income. 

(05 marks)

b) Briefly explain the difficulties of estimating National Income. 

(05 marks)

c) You are given the following information of a hypothetical economy. (All the values are in rupees millions)

\[
\begin{align*}
C &= 140 + 0.6y_d \text{ (Consumption)} \\
T_x &= 50 + 0.3y \text{ (Tax function)} \\
T_r &= 70 \text{ (Transfers)} \\
I &= 300 \text{ (Investment)} \\
G &= 250 \text{ (Government Expenditure)} \\
X &= 420 \text{ (Exports)} \\
M &= 120 + 0.25y \text{ (Imports)}
\end{align*}
\]

(i) Calculate the equilibrium level of national income for this model. 

(04 marks)

(ii) What are the values for Consumption, Tax and Imports. 

(02 marks)

d) Illustrate, the relationship between marginal propensity to consumption (mpc) and marginal propensity to savings. (mps) 

(04 marks) 

(Total 20 marks)
(07) a) "According to complex Keynesian model there is an interdependency between Goods and service market and money market." Do you agree with this statement? Justify your answer. (04 marks)

b) You are given following information on a hypothetical economy. (Figures are in Rs: million)

\[ C = 100 + 0.8 \text{ yd} \quad \text{(Consumption)} \]
\[ I = 300 - 30 \text{ r} \quad \text{(Investment)} \]
\[ Tx = 200 + 0.2 \text{ y} \quad \text{(Tax Function)} \]
\[ G = 400 \quad \text{(Government Expenditure)} \]
\[ Tr = 50 \quad \text{(Transfers)} \]
\[ Md = 0.3y - 12 r \quad \text{(Money Demand)} \]
\[ MS = 150 \quad \text{(Real money supply)} \]

Calculate the level of national income and interest rate when both real and monetary markets are in equilibrium. (04 marks)

c) Using the IS - LM model examine the impact
(i) an expansion in the money supply (04 marks)
(ii) a contraction of any fiscal policy.

d) "Monetarist argue that quantity of money is the prime determinant of economic activity. But fiscalists argue that fiscal variables are most important." Critically examine the above statement by using the IS - LM model and write-down factors that determine the effectiveness of monetary and fiscal policies. (08 marks)

(08) a) Suppose that the government removes a tax on consumption goods and services and reduce its expenditure simultaneously to control inflation. What effects would you expect of this policy on general price level and aggregate output? Do you suggest alternative policies to control inflation? (10 marks)

b) Economic growth is an essential but not adequate factor to eradicate poverty and hunger which is the first Millennium Development Goals (MDG's) Explain briefly. (10 marks)