No of questions – 08

Time: 03 Hours

Answer three (3) questions from part I and two questions (2) from part II

All together answer five (5) questions only.

(Graph papers will be provided.)

Part I

(01) a) Explain the following fundamental concepts of economics.

(i) Scarcity

(ii) Opportunity cost.

(04 marks)

b) Use demand and supply curves to analyse what is happening in each of the following situations:

(i) The price of coffee has risen because of a frost in Brazil reducing the coffee crop.

(ii) Further falls in chip prices have led to a reduction in the price of laptop computers.

(iii) An exceptionally cold winter in North America leads to a higher price of oil.

(06 marks)

c) Define the elasticity of demand and explain why this concept should be of interest to anyone in business who has a choice to make about the price at which to sell their products.

(04 marks)

d) Suppose consumer income rose from Rs. 1000 last year to Rs. 1100 this year. The demand for 03 products A, B and C change as follows. Calculate income elasticity of demand.

<table>
<thead>
<tr>
<th>Good</th>
<th>Qty demanded last year (units)</th>
<th>Qty demanded this year (units)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>100</td>
<td>120</td>
</tr>
<tr>
<td>B</td>
<td>100</td>
<td>105</td>
</tr>
<tr>
<td>C</td>
<td>100</td>
<td>95</td>
</tr>
</tbody>
</table>

(06 marks)
(02) a) Explain how consumer reaches equilibrium according to marginal utility theory and Indifference curve analysis.  

(05 marks)

b) Briefly explain "equi marginal utility" theory and calculate utility maximizing combination by using following information.
Price of Commodity A is = Rs: 1
Price of Commodity B is = R: 2

<table>
<thead>
<tr>
<th>Units</th>
<th>Mu(A)</th>
<th>Mu(B)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>13</td>
<td>24</td>
</tr>
<tr>
<td>2</td>
<td>08</td>
<td>20</td>
</tr>
<tr>
<td>3</td>
<td>04</td>
<td>18</td>
</tr>
<tr>
<td>4</td>
<td>02</td>
<td>16</td>
</tr>
<tr>
<td>5</td>
<td>01</td>
<td>12</td>
</tr>
</tbody>
</table>

(05 marks)

c) Explain ridge lines and price consumption curve by using appropriate graphs.  

(04 marks)

d) Use diagrams to explain how a demand curve for a product is derived using indifference curves and budget lines.  

(06 marks)

(Total 20 marks)

(03) a) Comment whether these diagrams are logically correct or not. Justify your answer.

(i)  

(ii)  

(iii)  

(06 marks)

b) "The long run average cost curve is the boundary between cost levels that are attainable, with known technology and given input prices and those that are unattainable." Do you agree with this statement. Give reasons for your answer.  

(04 marks)
c) You are provided following information with relate to a firm's short run.

<table>
<thead>
<tr>
<th>No. of workers (L)</th>
<th>Total output TP (units)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>1</td>
<td>10</td>
</tr>
<tr>
<td>2</td>
<td>22</td>
</tr>
<tr>
<td>3</td>
<td>30</td>
</tr>
<tr>
<td>4</td>
<td>36</td>
</tr>
<tr>
<td>5</td>
<td>40</td>
</tr>
<tr>
<td>6</td>
<td>40</td>
</tr>
<tr>
<td>7</td>
<td>35</td>
</tr>
</tbody>
</table>

(i) Calculate Average Productivity (AP) and Marginal Productivity (MP).

(ii) Draw Total productivity, Average productivity and Marginal productivity (MP) in an one diagram.

(iii) Mark three production stages in the diagram and find out the best production stage out of these three. Justify your answer.

(02 marks)  (03 marks)  (05 marks)

(04) a) Prove that the supply curve is up sloping portion of the marginal cost curve for a firm in perfect competition.

b) In a perfectly competitive market economic profits and losses act as a signal to firms. Profits encourage firms to enter, and losses to exit, an industry. Use diagrams to show how perfectly competitive firms respond to an increase market demand for their output in both the short run and long run.

(04 marks)  (06 marks)

c) Following price level and total cost functions were given related to a certain economy.

\[ P = 4 \]
\[ TC = Q^3 - 7Q^2 + 12Q + 5 \]

Compute the profit maximizing output and the total profit.

(06 marks)

d) What are the conditions necessary to practice price discrimination?

(04 marks)  (Total 20 marks)
(05)  a) If a firm produces an identical product in two separate plants, explain how it should decide the profit maximizing production levels in each plant?

(07 marks)

b) Evaluate monopolistic competition in terms of efficiency, compare to perfect competition.

(06 marks)

c) Why is there a tendency in oligopoly towards price rigidity? What strategies can oligopolists adopt in order to increase his market share?

(07 marks)

(Total 20 marks)

**Part II**

(06)  a) The diagram below shows the circular flow of income in the Sri Lankan economy.

State which of the letter flows in the diagram refer to followings

(i) Samurdhi payments by the state
(ii) Corporate taxes
(iii) Local firm's sales of tea to Japan
(iv) Government's purchase of a machine from Jinasena and company.
(v) A firm re-invests its profits
(vi) Loans given by the banks

(09 marks)
b) The table below shows some selected National Accounts statistics for economy ABC.

<table>
<thead>
<tr>
<th>Item</th>
<th>Rs. million</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consumption expenditure</td>
<td>250</td>
</tr>
<tr>
<td>Gross Investment</td>
<td>60</td>
</tr>
<tr>
<td>Depreciation</td>
<td>40</td>
</tr>
<tr>
<td>Government expenditure</td>
<td>94</td>
</tr>
<tr>
<td>Imports</td>
<td>22</td>
</tr>
<tr>
<td>Exports</td>
<td>20</td>
</tr>
<tr>
<td>Transfer payments</td>
<td>40</td>
</tr>
<tr>
<td>Taxes</td>
<td>120</td>
</tr>
</tbody>
</table>

(i) What is economy ABC's Gross Domestic Product (GDP) for the year?
(ii) Using the data in the above table, Calculate the net investment.
(iii) Using the data in the table, compute the disposable income.

08 marks

(03 marks)
(Total 20 marks)

c) The consumption function of an economy is \( C = 20 + 0.6y \) and Investment function is \( I = 100 \) find the equilibrium level of income.

(07)

a) Derive the consumption function by using following data.

<table>
<thead>
<tr>
<th>National Income (Y)</th>
<th>Consumption (C)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000</td>
<td>1800</td>
</tr>
<tr>
<td>2500</td>
<td>2200</td>
</tr>
</tbody>
</table>

(04 marks)

b) Show how the slopes of the IS and LM curve affect the effectiveness of fiscal policy.

(06 marks)

c) Using IS - LM model show and explain the effect of an increase in Government Expenditure.

(04 marks)

d) You are provided with the following information on a certain economy.
   (Values are in million rupees)

\[
C = 40 + 0.8y \\
T = 0.25y \\
Tr = 10 \\
I = 400 - 20r \\
G = 450 \\
Ms = 3500 \\
P = 10 \\
Mt = 0.25y \\
Msp = -30r
\]

Calculate equilibrium level of National Income and Interest rate.

(06 marks)
(Total 20 marks)
(08) a) If inflation can not occur without money, does this mean that changes in the money stock always cause changes in inflation and that controlling the money stock is the only way to control inflation? (06 marks)

b) Outline potential policy solutions for, followings.
(i) Cyclical unemployment
(ii) Structural unemployment (06 marks)

c) What are the main determinants of economic growth? and what actions could governments, firms and individuals take to increase the rate of economic growth? (08 marks) (Total 20 marks)