

Uva Wellassa University

Faculty of Science and Technology

THIRD YEAR SECOND SEMESTER EXAMINATION – SEPTEMBER/OCTOBER 2012

EMG 344 -2 Applied Economics and Value Addition



Instructions to candidates:

Index No:

No. of pages : Three (03) pages
No. of questions : Five (05) Essay
Time allocation : Two (02) Hours

Answer only Three (03) questions including question No: 01.

01.

i)

- a) Define the terms “Value Addition” and “Economic Value Addition”. (05 marks)
- b) Explain the practical aspect of value addition with adequate examples from your field of study. (10 marks)
- c) Briefly illustrate the term “Value Added Tax”. (05 marks)

ii) Production function of a firm is given below. In this firm (Wage rate) $w=10$, (Price) $p = 10$, (Rental) $r = 40$.

$$Q = 30 K^{0.4} L^{0.3}$$

- a) If (Capital) $K=20$ find the optimum level of labour during the short run. (05 marks)
- b) Find the maximum profit during short run. (05 marks)
- c) Find the production equilibrium during the long run of this firm if they are going to achieve output equal to 2000 ($Q=2000$) by minimizing cost. (05 marks)
- d) What will happen to the above production equilibrium, if wage rate (W) increases up to 30 (if $W=30$). (05 marks)
- e) Derive MP_L , MP_K , $MRTS$ functions. (05 marks)
- f) What can you say about the returns to scale of the firm? (05 marks)

(Total – 50 Marks)



02.

- i) What are the main characteristics of a perfect competitive market? (05 marks)
- ii) Briefly explain the situation of long run supply curves under constant cost case and increasing cost case. (05 marks)
- iii) The price of a perfect competition firm is Rs. 20 per unit and their cost function is given as follows.

$$TC = 0.5Q^2 - 10Q + 200$$

- a) Compute the short run equilibrium of the firm. (05 marks)
- b) Find the short run profit or loss of this firm. (05 marks)
- c) Show the results graphically. (05 marks)

(Total – 25 Marks)

03.

- i) Graphically illustrate the concepts of consumer surplus and producer surplus (10 marks)
- ii) Assume that demand and supply curves for a hypothetical economy are given by, $Q_d = 10 - P$ and $Q_s = P - 2$ respectively.
 - a) Compute the market equilibrium. (05 marks)
 - b) Compute the loss of welfare when $Q=3$ (05 marks)
- iii) Graphically illustrate how price controls will create shortages in the economy (05 marks)

(Total – 25 Marks)

04.

- i) Explain the concept of barriers to entry with adequate examples. (10 marks)
- ii) Explain the profit maximization in a monopolistic market with graphical illustrations. (08 marks)
- iii) Illustrate the concept of "Price Discrimination" in a monopoly. (07 marks)

(Total – 25 Marks)

05.

- i) Explain the characteristics of main stages of production with graphical illustrations. (12 marks)
- ii) Explain the behavior of long run production cost curves. (05 marks)
- iii) Explain the concepts of "Factor price curve" and "Expansion path" with adequate graphical illustrations. (08 marks)

(Total – 25 Marks)