

3 (Sem-1) ECO M 1

2013

ECONOMICS

(Major)

Paper : 1.1

(Microeconomics—I)

Full Marks : 80

Time : 3 hours

The figures in the margin indicate full marks for the questions

1. (a) Choose the correct option : 1×4=4
- (i) Utility is a/an
- (1) subjective concept
 - (2) moral concept
 - (3) objective concept
 - (4) neutral concept
- (ii) A firm dumping untreated waste into the air imposes a
- (1) private cost
 - (2) social cost
 - (3) sunk cost
 - (4) zero cost

(iii) The three basic economic questions are

- (1) what, where, whom
- (2) what, how, whom
- (3) how, whom, when
- (4) what, why, whom

(iv) For perfect complementarity between two goods X and Y

- (1) MRS_{xy} will be zero
- (2) MRS_{yx} will be zero
- (3) MRS_{xy} and MRS_{yx} both will be zero
- (4) None of the above

(b) State whether the following statements are True or False : 1×2=2

(i) As soon as MC starts rising, AVC also starts rising.

(ii) When there are diminishing returns to a factor, total product always decreases.

(c) Answer the following questions : 1×4=4

(i) Find the elasticity of demand when a straight line downward sloping demand curve touches the Y-axis.

(ii) What is expansion path?

(iii) AFC curve is a rectangular hyperbola. What is the reason behind it?

(iv) Give the meaning of the break-even point of a firm.

2. Answer the following questions : $2 \times 5 = 10$

(a) Differentiate between static and dynamic equilibrium.

(b) Given a consumer's money income M and prices of two commodities P_x and P_y , find the slope of the budget constraint line in terms of P_x and P_y .

(c) What are some of the implicit costs incurred by an entrepreneur in running his or her firm?

(d) Why is the Slutsky measure of the substitution effect generally a better measure than the Hicksian measure of the effect?

(e) Distinguish between input and output.

3. Answer the following questions (any four) :

$5 \times 4 = 20$

(a) Mention the properties of isoquants. 5

(b) Explain the income effect and substitution effect of a price reduction for a Giffen good. 5

- (c) Give the meaning of the elasticity of substitution between factors. Calculate elasticity of substitution of labour for capital from the following data : 2+3

<i>Amount of labour (L)</i>	3	4
<i>Amount of capital (K)</i>	4	3
<i>Marginal product of labour (MP_L)</i>	6	5
<i>Marginal product of capital (MP_K)</i>	5	6

- (d) Establish the relationship between AR and MR through price elasticity of demand.
- (e) State the law of diminishing returns in terms of labour and land. When does the law of diminishing returns begin to operate? Why may it start only after some quantity of labour is employed? 2+1+
- (f) Discuss price ceiling and price floor techniques as government intervention in the commodity market.

4. Answer the following questions (any four) :

10×4=40

- (a) How would you derive the production contract curve? Derive the transformation curve corresponding to the production contract curve. 6+4
- (b) Discuss the relationship between short-run and long-run average cost curves. How would you derive the long-run MC (marginal cost) curve? 5+5
- (c) Explain the Marshallian concept of consumer's surplus. What are its underlying assumptions? Mention some practical applications of the concept of consumer's surplus. 4+3+3
- (d) How would you derive the Engel curve from the income consumption curve (ICC)? Explain Engel curve for necessity and luxury goods. What does a vertical Engel curve represent? 4+4+2
- (e) Discuss producer's equilibrium with the help of total revenue-total cost approach. Using MR and MC approach, find out the level of output at which the

(6)

producer is in equilibrium with the help of the following data. Give reasons for your answer : 5+3+2

Output (units)	Price (Rs)	TC (Rs)
1	10	11
2	10	21
3	10	30
4	10	38
5	10	48
6	10	59

(f) Distinguish between returns to factor and returns to scale. Discuss laws of returns to scale through isoquants. 3+7

(g) Define a production possibility curve (PPC). How does the PPC illustrate scarcity, choice and opportunity cost? What will be the opportunity cost when you decide to attend the college instead of taking a job? By what other name is PPC also known? 2+2+2+2+1+1

(h) (i) Distinguish between Economies and Diseconomies of scale. 5+5

- (ii) Fill in the blanks in the paragraph below to give a good explanation of average and marginal costs in the short run. The words you need are given below :

rise, per unit, fall, increasing
returns, total cost, fall,
diminishing returns, rise,
U, marginal

The marginal cost is the change in the — as the level of output changes. The average cost, however, is the cost — of total output. As output increases marginal cost will at first tend to — as there will be increasing returns to the variable factor. When diminishing returns set in the marginal cost will then —. The average cost curve will show a similar pattern. Initially the level of average cost will —, but diminishing returns will then make it — followed by — therefore make both the average and — cost curves —.
