

Indian Institute of Technology Patna

Mid Semester Examination

HS201: Introductory Microeconomics

Time-2 hours

Marks= 30

1. Explain the concept of perfect substitute, and what will be the shape of an indifference curve for a perfect substitute. (5 Marks)
2. Using an appropriate diagram, define and distinguish between "affordable" (feasible) and "non-affordable" (non-feasible) bundles of goods. (5 Marks)
3. Fill in the blanks with appropriate words given in the brackets. (1/2 x 10 = 5 Marks)

(Large number of buyers and sellers, More when the price is low than when the price is high, Variable costs, Normal goods, Few , Internal , Production of others foregone, J.R. Hicks, at its lowest point, Giffen / Inferior.)

- i. The demand for a commodity is said to be elastic if the total amount spent on the commodity is _____.
- ii. Marginal costs are most closely related to _____.
- iii. The goods which have positive price effect are called _____ goods.
- iv. Expansion of business is a _____ factor over which the management has control.
- v. Law of demand does not apply to _____ goods.
- vi. Micro economic analysis deals with the behavior of _____ economic units.
- vii. Marginal cost curve cuts the average cost curve _____.
- viii. One of the essential conditions of perfect competition is _____.
- ix. Opportunity cost is a term which describes cost of one product in terms of _____.
- x. Indifference Curve is a contribution by _____.

4. A firm's total cost function is given by the equation: $TC = 4000 + 5Q + 10Q^2$

Write an expression for each of the following cost concepts: (1 x6 =6 Marks)

- a. Total Fixed Cost
- b. Average Fixed Cost
- c. Total Variable Cost

- d. Average Variable Cost
- e. Average Total Cost
- f. Marginal Cost

5. Write true or false for the following statements: ($\frac{1}{2} \times 8 = 4$ Marks)

- a) The total cost (TC) of producing sports shoes (Q) is given as: $TC = 200 + 5Q$. The variable cost will be $5Q$.
- b) The cross-price elasticity of demand measures how the quantity demanded of one good is related to consumer income.
- c) The addition made to the total cost is known as average cost.
- d) Price and demand is always having positive relationship.
- e) The supply elasticity measures the responsiveness of quantity supplied to quantity demanded.
- f) Upward shift in the demand curve is due to increase in the price of the commodity.
- g) Inferior goods have negative income effect.
- h) In the short run, the firm's fixed costs, total and average cost cannot change.

6. Explain the difference between a bowed out PPC and a straight line PPC. (5 Marks)