## 2008

## MANAGERIAL ECONOMICS

[1st Semester]

**PAPER**—CM 1105

Full Marks: 50

Time: 2 hours

The figures in the right-hand margin indicate marks

Candidates are required to give their answers in their own words as far as practicable

Illustrate the answers wherever necessary

UNIT-I

[Marks: 20]

Answer any two from the following:

5 x 2

(a) Define consumer's surplus and show how it can be measured with the help of a diagram.

- (b) Consider the total cost function is  $e = 15q 6q^2 + q^3$ . Derive the equations of AC and MC curves. Find the output level at which AC is minimum and show that when AC is minimum, AC = MC.
- (c) State the weak axiom of revealed preference with an example.
- (d) What is the significance of convexity of an indifference curve?
- 2. Answer any one of the following:

10 x 1

- (a) (i) How does an ordinary demand curve differ from a compensated demand curve?
  - (ii) Which of these two curves is more elastic at the same price for a normal good?
  - (iii) Decompose price effect into substitution effect and income effect for Giffen goods.

    3+3+4

- (b) (i) Find the condition that a firm must fulfil to minimise cost for a given level of output.
  - (ii) Why is the long-run average cost curve called an envelope of short-run average cost curves?

    6+4

## UNIT-II

[ Marks : 20]

- 3. Answer any two from the following:  $5 \times 2$ 
  - (a) Why is the notion of supply curve absent under monopoly market?
  - (b) Derive average revenue (AR) and marginal revenue (MR) curves under a perfectly competitive market and comment on their shapes.
  - (c) When does a firm under perfect competition decide to shut down in the short run?
  - (d) Explain the characteristic features of oligopoly.

4. Answer any one question:

10 x 1

- (a) (i) When is price discrimination is possible and profitable?
  - (ii) Graphically analyse the equilibrium situation of a discriminating monopolist.
  - (iii) Derive the supply curve of a firm under conditions of perfect competition if the equation of the total cost is:

$$C = 0.1q^3 - 2q^2 + 15q + 10.$$
  
2+4+4

- (b) (i) In a two industry input-output model show how the gross output levels can be determined given the final demands and the technological matrix.
  - (ii) Deduce the Hawkins Simon conditions in a two-industry input-output model. What are the economic implications of these conditions?

    6+4

[Internal Assessment: 10 Marks]