## SECTION-C

4. (a) What is Monopolistic Competition ? Explain the important features of Monopolistic Competition. 7
(b) Explain price determination under perfect competition with suitable illustration.

## OR

(c) What is prisoners dilemma? How does it help to explain the likelihood of firms opting for sub-optimal solution in oligopoly?
(d) Describe price discrimination under Monopoly. 7

SECTION-D
5. Given the demand and TC function of a company. Determine the optimal output, price, total profit and total revenue :

$$
\begin{aligned}
P & =20-Q \\
T C & =Q^{2}+10 Q+2
\end{aligned}
$$

(i) Under profit maximisation
(ii) Under sales maximisation.

## M.B.A. (Semester-l) (New) Examination MANAGERIAL ECONOMICS

Time : Three Hours]
[Maximum Marks : 70
Note :- (1) Attempt ALL questions.
(2) Figures to the right indicate marks.
(3) Use of non-programmable calculator is permitted.

## SECTION-A

1. (a) Why is it important to state a managerial objective? Could the assumption that the managers objective is profit maximisation be useful even if their real objective is maximising market share or, their salaries? 14

## OR

(b) Discuss the nature and scope of managerial economics. What are the other related disciplines ?

## SECTION-B

2. (a) What is the law of diminishing marginal utility? Explain and illustrate the law with the help of MU--Schedule and MU-Curve.
(b) There are two commodities x and y on which a consumer spends his entire income in a day. He has utility function $U=\sqrt{x y}$. Find out the optimal quantities of $x$ and $y$ if prices of $x$ and $y$ are ₹5/unit and ₹ 2 /unit respectively and his daily income is - 500 .

7

## OR

(c) Define price elasticity of demand. What are the factors that determine it? Explain.
(d) Abhay industries is a major producer of steel. Management estimates that the demand for the company's steel is given by the equation :

$$
Q_{s}=5000-100 \mathrm{P}_{\mathrm{s}}+0.1 \mathrm{I}+100 \mathrm{P}_{\mathrm{a}}
$$

where, $\quad Q_{s}-$ Steel demand in thousands of tons per year
$P_{s}$ - Price of steel in $₹ / \mathrm{kg}$
I - Income per capita
$\mathrm{P}_{\mathrm{a}}$ - price of aluminium in $₹ / \mathrm{kg}$
Initially, $P_{s}=\tau 40 / \mathrm{kg} ; P_{a}=₹ 30 / \mathrm{kg}$
$\mathrm{I}=$ ₹ 20000 per capita.
(i) What is the point income elasticity? 3
(ii) What is the point cross elasticity between steel and aluminium?
3. (a) What is meant by production ? Define production function and describe the underlying assumptions.
(b) A firm is producing output using labour and capital in such quantities that marginal product of labour is 15 , and marginal product of capital is 8 . The cost of labour $\left(C_{L}\right)$ is ₹ $3 /$ unit and cost of capital $\left(C_{k}\right)$ is $\mathbf{~} 2 /$ unit. Is the firm using efficient factor combination for production? If not, what it should do to achieve economic efficiency?

## OR

(c) Define and explain the three stages of production.
(d) Given the production function :

$$
Q=100 K^{0.5} L^{0.5}
$$

where $\quad Q=$ Quantity produced/output

$$
\mathrm{K}=\text { Capital employed }
$$

$$
L=\text { Labour employed }
$$

Determine the optimal input combination for producing 1444 units of output if cost of labour $\left(\mathrm{C}_{\mathrm{i}}\right)$ is
₹ $30 /$ unit and cost of capital $\left(\mathrm{C}_{\mathrm{K}}\right)$ is ₹ $40 /$ unit.
What is the minimum cost of production?

