LOYOLA COLLEGE (AUTONOMOUS), CHENNAI - 600034
M.A. DEGREE EXAMINATION - ECONOMICS

SECOND SEMESTER - APRIL 2017
16PEC2MC01 - MICRO ECONOMIC THEORY AND APPLICATION - II

Date: 19-04-2017
Time: 01:00-04:00
Dept. No. $\square$ Max. : 100 Marks

## Part - A

Answer any 5 questions in about 75 words each.

1. List out various models of oligopoly.
2. State the role of the trade union in the marginal productivity theory of the classical model.
3. Bring out the goals of average cost pricing theory.
4. List out the assumptions of Baumol's static sales maximization model.
5. State the assumptions of compensation principle.
6. What do you meant by slack variable? State the purpose of this variable.
7. From the given data find the expected value of outcome of the game for Firm - I.

| Possible shares of Firm I for <br> the pair of strategies $\mathrm{A}_{1}$ and $\mathrm{B}_{1}$ | Probability of each share |
| :--- | :--- |
| 0.00 | 0.00 |
| 0.10 | 0.10 |
| 0.20 | 0.15 |
| 0.30 | 0.20 |
| 0.40 | 0.15 |
| 0.50 | 0.10 |
| 0.60 | 0.09 |
| 0.70 | 0.08 |
| 0.80 | 0.07 |
| 0.90 | 0.06 |
| 1.00 | 0.00 |
|  | $\sum_{\sim}^{\circ} . \quad$. |

## Part - B

Answer any 4 questions in about 300 words each.
( $4 \times 10=40$ Marks)
8. Discuss Baumol's sales maximization of a multiproduct model with advertising.
9. Review Bain's model of Limit pricing with a suitable diagram.
10. Justify the superiority of Cartter's model of Bilateral Monoploy and wage determination.
11. Discuss Pareto's concept of general equilibrium on production.
12. Discuss the concept of public good and externality for the market failure with a suitable representation.
13. Discuss application of Prisoner's dilemma with original Oligopoly model.
14. From the given illustration find the optimal solution using Nash Equilibrium

|  | Firm - II |  |  |
| :--- | :--- | :--- | :--- |
| Firm - I | Advertise | 4,3 | 5,3 |
|  | Advertise | Don't Advertise |  |
|  | Don't Advertise | 2,5 | 6,4 |

## Part - C

## Answer any 2 questions in about 1200 words each.

15. Discuss Marris's model of managerial enterprise with its constraints.
16. Discuss the role of trade union to remove the double exploitation of the imperfect market.
17. From the given Transaction matrix find the following:
a. Input Coefficient and Technology matrix
b. Input - output system through Leontief method
c. Co-factor matrix
d. Output of agriculture, manufacturing sector and labour requirements.

| Producers of <br> Inputs | User of Outputs |  |  |  |  |
| :---: | :--- | :--- | :--- | :--- | :--- |
|  | Sectors | Agriculture | Manufacturing | Final <br> Demand | Total <br> Output |
|  | Agriculture | 175 | 225 | 200 | 600 |
|  | Manufacturing | 300 | 250 | 150 | 700 |
|  | Labour | 125 | 225 | - | 350 |
|  | Total Output | $\mathbf{6 0 0}$ | $\mathbf{7 0 0}$ | $\mathbf{3 5 0}$ | $\mathbf{1 6 5 0}$ |

18. Let us assume that a firm can produce three commodities say $\mathrm{x}_{1}, \mathrm{x}_{2}$, and $\mathrm{x}_{3}$ with three factors of production $\mathrm{F}_{1}, \mathrm{~F}_{2}$ and $\mathrm{F}_{3}$. The available quantities of factors are: $\mathrm{F}_{1}=50$ units of labour, $\mathrm{F}_{2}=75$ units of capital, $\mathrm{F}_{3}=90$ units of land
$\mathrm{F}_{1}$
$\mathrm{~F}_{2}$
$\mathrm{~F}_{3}$$\quad\left\{\begin{array}{l}\mathrm{A}_{1}=2 \\ \mathrm{k}_{1}=1 \\ \mathrm{~s}_{1}=3\end{array}\right\} \quad\left\{\begin{array}{c}\mathrm{A}_{2} \\ \mathrm{l}_{2}=3 \\ \mathrm{k}_{2}=2 \\ \mathrm{~s}_{2}=1\end{array}\right\} \quad\left\{\begin{array}{c}\mathrm{A}_{3} \\ \mathrm{l}_{3}=1 \\ \mathrm{k}_{3}=3 \\ \mathrm{~s}_{3}=2\end{array}\right\}$

The unit profit of the three commodities are $\pi_{1}=2, \pi_{2}=3$, and $\pi_{3}=2$. Find the optimal solution using simplex method.

