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Reg. No:.....

Name: .....

FAROOK COLLEGE (AUTONOMOUS), KOZHIKODE  
Second Semester BA Degree Examination, March/April 2020  
BEC2B02 – Micro Economics II  
(2019 Admission onwards)

Time: 2 ½ hours

Max. Marks: 80

**Section A**

**Short answer questions: maximum mark in this section is 25. Student can attend all questions. Each question carries 2 marks.**

1. Differentiate explicit and implicit cost.
2. What is peak load pricing?
3. Mention four sources of monopoly.
4. Define monopsony.
5. What is Lerner index?
6. Define dumping.
7. What you mean by two part tariff?
8. What is bilateral monopoly?
9. What is selling cost?
10. What you mean by cartel in oligopoly?
11. What you mean by barometric price leadership?
12. What is an envelope curve?
13. Define marginal revenue product.
14. What is price elasticity of demand for an input?
15. What is product differentiation?

### Section B

**Paragraph type questions. Maximum mark in this section is 35. Student can attend all questions. Each question carries a maximum of 5 marks.**

16. Explain the nature of short run and long run cost curves.
17. Explain the nature of AR and MR curves under perfect competition.
18. What is perfect competition? Explain the condition for short run and long run equilibrium in perfect competition.
19. What is price discrimination? Explain three degrees of price discrimination.
20. Explain equilibrium of a firm in the long run in monopolistic competition.
21. Explain Cournot's model of duopoly.
22. What are the features of monopolistic competition?
23. Explain marginal productivity theory of inputs.

### Section C

**Essay type questions. Answer any 2 questions. Each question carries a mark of 10.**

24. Explain the characteristics of Monopoly. Discuss the short run and long run equilibrium of a firm in monopoly.
25. Explain the oligopoly model with kinked demand curve analysis.
26. Explain equilibrium in a competitive factor market.
27. What is a cost function? Explain different concepts of cost. Discuss the relationship between average cost and Marginal cost.

FAROOK COLLEGE (AUTONOMOUS), KOZHIKODE  
Second Semester BA Degree Examination, March/April 2020  
BEC2C04 – Mathematical Methods for Economics II  
(2019 Admission onwards)

Time: 1 ½ hours

Max. Marks: 40

**Part A**

(Very Short Answer Type Questions. Each question carries 2 Marks)

Define Arithmetic Progression. How the n<sup>th</sup> term of AP is obtained?

Three numbers in ascending order are in GP such that their product is 512. Find the middle number.

Distinguish between upper triangular matrix and lower triangular matrix. Give example

$A = \begin{bmatrix} 8 & 9 & 7 \\ 3 & 6 & 2 \\ 4 & 5 & 10 \end{bmatrix}$  and  $B = \begin{bmatrix} 1 & 3 & 6 \\ 5 & 2 & 4 \\ 7 & 9 & 2 \end{bmatrix}$ . Find A+B and A-B

Find AB if  $A = \begin{bmatrix} 2 & 1 & 0 \\ 0 & 2 & 3 \end{bmatrix}$  and  $B = \begin{bmatrix} 3 \\ 4 \\ 2 \end{bmatrix}$

State the concept of limit of a function. Find  $\lim_{x \rightarrow 2} (x^4 - 3x)^2$

Differentiate  $f(x) = 3x^2(4x^4 + 2x^3 - 10x)$

(Ceiling 10 Marks)

**Part B**

(All questions may be answered. Each question carries 5 marks)

The 13<sup>th</sup> term of an AP is 3 and the sum of the first 13 terms is 234. Find the first term.

If the 5<sup>th</sup> term and 10<sup>th</sup> term of a GP are 32 and 1024 respectively. Find the first term and common difference.

- 0. State the important properties of determinant with examples.
- 1. Use Cramer's rule to solve for the unknowns of the following equations

$18P_1 - P_2 = 50$

$-2P_1 + 3P_2 = 6$

- 2. Define implicit differentiation. Find the derivative of  $3x^3 - y^2 = 56$

(Ceiling 20 Marks)

**Part C (Short Answer Questions)**  
**Answer any one of the following questions**

13. Distinguish between simple and compounded interest. An individual deposits RS. 1000/ at the end of every year in a bank, which pays 12% compound interest per annum for 8 years. What will be the total amount standing to his credit at the end of 8<sup>th</sup> year?
14. Use the matrix inverse method to solve the following system of equations.

$$4x_1 + x_2 - 5x_3 = 8$$

$$-2x_1 + 3x_2 + x_3 = 12$$

$$3x_1 - x_2 + 4x_3 = 5$$

**(1×10=10 Marks)**