

FIFTH SEMESTER B.A. DEGREE EXAMINATION, NOVEMBER 2025

(CBCSS - UG)

(Regular/Supplementary/Improvement)

CC19UECO5B10 - MATHEMATICAL ECONOMICS

(Economics - Core Course)

(2019 Admission onwards)

Time : 2.5 Hours

Maximum : 80 Marks

Credit : 4

Part A (Short answer questions)Answer ***all*** questions. Each question carries 2 marks.

1. What is an economic model?
2. What do you mean by a function?
3. What is consumption?
4. What do you mean by MU?
5. What is MRS?
6. What is Supply elasticity?
7. What is necessary goods?
8. What is a homogeneous production function?
9. What is Linearity?
10. What do you mean by the basis of IOA?
11. What is a technology matrix?
12. Explain the features of market.
13. What is invisible hand?
14. Why Perfect Competition is a Price taker?
15. What are the marginalised conditions of equilibrium under monopoly?

(Ceiling: 25 Marks)**Part B (Paragraph questions)**Answer ***all*** questions. Each question carries 5 marks.

16. How to find the maximum and minimum of a function?

17. Optimize $TC=3x^2-xy+2y^2-4x-7y+12$
18. Calculate the MP of factors of production from CD function.
19. Maximize $Z=45X_1+55X_2$

S.T

$$6X_1+3X_2 \leq 120$$

$$4X_1+10X_2 \leq 180$$

$$X_1, X_2 \geq 0$$

20. Explain the limitations of LPP.
21. What are the rules of transportation of a primal to dual?
22. Explain the general form of an Open model.
23. Explain the discrimination under monopoly.

(Ceiling: 35 Marks)

Part C (Essay questions)

Answer any ***two*** questions. Each question carries 10 marks.

24. Make an elaborate explanation regarding the economic functions.
25. Explain the relationship between AR&MR and AC & MC.
26. What are the situations in which we can apply lagrange multiplier?
27. What do you mean by Input-Output Analysis? What are its assumption?

($2 \times 10 = 20$ Marks)
