



K25U 2385

Reg. No. :

Name :

V Semester B.A. Degree (CBCSS – OBE – Regular/Supplementary/
Improvement) Examination, November 2025
(2019 to 2023 Admissions)

CORE COURSE IN ECONOMICS/DEVELOPMENT ECONOMICS
5B07ECO/DEV ECO : Basic Tools for Economic Analysis – I

Time : 3 Hours

Max. Marks : 40

PART – A

Answer all questions. Each question carries 1 mark.

1. Define compound growth rate.
2. Simplify $\frac{a^6}{a^3}$.
3. Describe Cartesian product.
4. What are indifference curves ?
5. What is a histogram ?
6. Briefly describe quartiles and deciles.

(6×1=6)

PART – B

Answer any six questions. Each question carries 2 marks.

7. Solve $\frac{4x+1}{7} = \frac{10x+25}{25}$.
8. Compare population and sample.
9. Explain how to draw frequency curves.

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10. Examine Lorenz curve and Gini coefficient.
11. Define kurtosis. Examine various types of it.
12. Describe conditional probability.
13. The 4th and 7th terms of an AP are 3 and 36. Find the AP and its 15th term.
14. What do you mean by coefficient of variation ?

(6×2=12)

PART – C

Answer any four questions. Each question carries 3 marks.

15. Examine measures of dispersion.
16. Define sampling. Explain various types of sampling.
17. Find the mode of the following data.
X: 15 20 25 30 35 40 45
F: 3 25 19 16 4 5 6
18. Solve the equation $3 \times 27^x = 9^{x+4}$.
19. If $x^2 + y^2 = 6xy$, prove that $2 \log (x + y) = \log x + \log y + 3 \log 2$.
20. Find the sum of first 12 terms of GP 1, 3, 9,

(4×3=12)

PART – D

Answer any two questions. Each question carries 5 marks.

21. (i) Define market equilibrium.
(ii) If the demand and supply functions of a commodity are ;
 $Q_d = 25 - 5p$
 $Q_s = 10 + 10p$
Find the equilibrium price and quantity.

If the demand function changes to $Q_d = 20 - 2p$, what will the changes in equilibrium values ?

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22. Describe set theory. What are various set operations ?
23. Economics marks of a group of students given below. Calculate arithmetic mean and interpret the result.

Marks	No. of Students
Less than 10	5
Less than 20	17
Less than 30	31
Less than 40	41
Less than 50	49

24. (i) What is meant by probability ?
(ii) One card is drawn at random from the pack of 52 cards.
(a) Find the probability that it is an honor card.
(b) It is a face card.

(2×5=10)