



K23U 2212

Reg. No. :

Name :

V Semester B.A. Degree (C.B.C.S.S. – O.B.E. – Regular/Supplementary/
Improvement) Examination, November 2023

(2019 – 2021 Admissions)

CORE COURSE IN ECONOMICS/DEVELOPMENT ECONOMICS
5B07 ECO/DEVECO : Basic Tools for Economic Analysis – I

Time : 3 Hours

Max. Marks : 40

PART – A

Answer **all** questions. **Each** carries **one** mark.

1. Simplify $5^{1/3} \times 5^{5/3}$.
2. What is an equation ?
3. Describe the linear function.
4. Define absolute frequency.
5. What is meant by Kurtosis ?
6. Describe equally likely events.

(6×1=6)

PART – B

Answer **any six** questions. **Each** carries **two** marks.

7. Find the sum of the 10 terms in the series 1, 3, 9, 27, ...
8. If an investment grows at a compound annual growth rate of 5%, starting with an initial value of Rs. 10,000, what will be the value of the investment after 5 years ?
9. Distinguish between equal set and equivalent set.
10. Define the cost function and give an example.

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- 11. List out the important measures of Dispersion.
- 12. Find the mean, median and mode for the data set 3, 7, 9, 4, 5, 4, 6, 7 and 9.
- 13. What is histogram ? Illustrate it.
- 14. A card is drawn from a pack of cards. What are the probabilities of getting
 - a) a spade
 - b) a black card and
 - c) a King or a Queen.

(6x2=12)

PART - C

Answer **any four** questions. **Each** carries **three** marks.

- 15. Solve the quadratic equation : $x^2 - 5x + 6 = 0$.
- 16. State the rules of Logarithm with example.
- 17. Give the cost function is $TC = 2q + 200$ and Revenue function is $TR = 3q^2 + 4q - 2$.
Find the profit function and profit when 10 units are produced.
- 18. Compute median for the following data.

Class	0 - 10	10 - 20	20 - 30	30 - 40	40 - 50	50 - 60	60 - 70
Frequency	8	12	20	23	18	7	2

- 19. Define frequency polygon and draw frequency polygon for the following data.

Class	10 - 20	20 - 30	30 - 40	40 - 50	50 - 60	60 - 70
Frequency	6	9	15	20	10	5

(4x3=12)

- 20. Axiomatic approach of probability theory.



PART – D

Answer **any two** questions. **Each** carries **five** marks.

21. Solve for x, y and z

$$2x - y + z = 3,$$

$$x + 3y - 2z = 11$$

$$3x - 2y + 4z = 1$$

22. Describe the fundamental concepts of relations and functions highlighting their use in economics.

23. What is an average ? Examine the important requisites of a good average.

24. State and explain the theorems of probability.

(2×5=10)

