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.

(6×2=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

20. Axiomatic approach of probability theory.

(4×3=12)