K23U 2712

Reg. No. : .....

Name : .....

V Semester B.A. Degree (C.B.C.S.S. – Supplementary) Examination, November 2023
(2017 and 2018 Admissions)
CORE COURSE IN ECONOMICS/DEVELOPMENT ECONOMICS
5B07ECO : Basic Tools for Economic Analysis – I

Time : 3 Hours Max. Marks : 40

PART – A

Answer **all** questions. **Each** question carries **1** mark.

1. Define subset.
2. Simplify $x^4y^2 z^3 \times x^2y^3z$
3. What is histogram ?
4. Define probability. **(4×1=4)**

PART – B

Answer **any 7** questions. **Each** question carries **2** marks.

5. What is the difference between equal set and equivalent set ?
6. Distinguish between arithmetic and geometric progression.
7. If the first term of an AP is –23 and common difference is –7, then find 30^{th} term.
8. In a class, 50 can speak English and 20 can speak Hindi and 10 speak both. How many members can speak at least one of the languages ?
9. Solve $x^2 – x – 6 = 0$.
10. The demand function is given as Q= 80-3p, construct your own demand schedule.

P.T.O.

11. Distinguish between less than ogive and more than ogive.

12. Calculate the arithmetic mean from the following data.

Value	5	10	15	20	25
Frequency	10	12	8	7	9

13. Write a short note on Lorenz curve.

14. What is conditional probability ? **(7×2=14)**

PART – C

Answer **any 4** questions. **Each** question carries **3** marks.

15. If the 8^{th} and 17^{th} term of an AP are 76 and 157. Find 28^{th} term.

16. Solve $2x - y = 5$.

    $3x - 4y = 10$.

17. Find the median from the following table.

Size	0-10	10-20	20-30	30-40	40-50	50-60
Frequency	4	6	9	12	10	8

18. What is logarithm ? Using logarithm evaluate $\frac{(25.34)^2}{(19.56)^3}$.

19. Write a short note on the following :
    a) Variance and coefficient of variation
    b) Absolute and relative dispersion.

20. From an urn containing 12 balls of the same size of which are 6 are red, 4 are blue and 2 are white, three balls are drawn at random. What is the probability that
    a) All balls are blue
    b) None of the balls is blue
    c) The balls are different colour. **(4×3=12)**

PART – D

Answer **any 2** questions. **Each** question carries **5** marks.

21. Solve the following simultaneous linear equations.

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

$3x - y - 2z = 4$

$4x - 7y - 6z = -7$.

22. Define set. Write a note on types of sets.

23. Find the mean deviation about the mean for the following data.

Age	16-20	21-25	26-30	31-35	36-40	41-45	46-50	51-55
Number	5	6	12	14	26	12	16	9

24. What do you mean by sampling ? What are the different techniques under probability sampling and non-probability sampling ? **(2×5=10)**