0033044 **K19U 2121**

Reg. No. : .....

Name : .....

V Semester B.A

Degree (CBCSS- Reg./Sup./Imp.) Examination, November-2019

(2014 Admn. Onwards)

Core Course in Economics/Development Economics

5B 07 ECO : BASIC TOOLS FOR ECONOMIC ANALYSIS-I

Time : 3 hrs Max. Marks : 40

Part-A

Answer **All** questions (Each question carries **1** mark). **(4×1=4)**

1. What is market equilibrium?
2. Solve for x, $4x^2-9=0$
3. What is conditional probability?
4. Define Histogram.

Part-B

Answer any **7** questions (Each question carries **2** marks). **(7×2=14)**

5. A ball is drawn at random from a bag containing 4 white balls, 6 black balls and 5 green balls. Find the probability that the ball drawn is
   a) White
   b) Green
   c) Black
   d) Green or White

P.T.O.

6. Explain the law of indices.
7. Solve the Equation $x^2 - 7x + 12$
8. Distinguish between a positively skewed distribution and a negatively skewed distribution.
9. Compute the Median of the following figures

   280, 180, 96, 98, 104, 75, 80, 94, 100, 75, 600, 200
10. If $U = \{1, 2, 3, 4, 5, 6, 7\}, A = \{1, 2, 3, 4, 5\}, B = \{2, 5, 7\}$ Prove that $(A \cap B)' = A' \cup B'$.
11. What is Simple Random sampling?
12. The Demand for a commodity in Kilogram for a price in Rs is given by D = 100(10-p) and the supply for the same is given by S=75(p-3). The market is such that the demand equals supply. Find the market price and the quantity that will be bought and sold.
13. Differentiate between frequency polygon and frequency curve.
14. Find two numbers whose sum is 30 and difference is 4.

Part-C

Answer any **4** questions (Each question carries **3** marks) **(4×3=12)**

15. With the help of the following data, construct a Histogram

Marks obtained	0-10	10-20	20-30	30-40	40-50	50-60	60-70
Number of students	16	20	25	30	18	10	8

16. Solve the following equations

    $x + y = 12$

    $x^2 + y^2 = 74$
17. Represent the following distribution by the ogive curves and calculate the median from it.

Class	0-10	10-20	20-30	30-40	40-50	50-60	60-70	70-80
Frequency	5	8	7	12	28	20	10	10

18. Explain the laws of set operations with suitable examples.
19. Distinguish between Arithmetic progression and Geometric Progression. Given the series 1.3,5,7....., find the 50th term?
20. Calculate the compound growth at the end of 5 years, if a customer deposits Rs. 100 with a bank at an annual interest rate of 4%.

Part-D

Answer any 2 question (Each question carries 5 marks. **(2×5=10)**

21. Explain in detail the various methods of collecting data.
22. Calculate the mean, median, quartiles and interquartile range of the following frequency distribution

class	0-15	15-25	25-35	35-45	45-55	55-65	65-75	75-85	85-95
Frequency	2	60	101	152	205	155	79	40	1

23. Explain the various types of functions.
24. Construct the total cost and average cost curves from the cost relation for a sugar refinery given by $C = \frac{1}{10}x^2 + 5x + 200$ where x is the number of tons of sugar produced per week in a refinery and C is the total cost per week for the production of x tons of sugar (For Total cost, put values for *x-0,20,40,60,90* and fro Average cost, put values for *x-10,20,50,100*).
