



K22U 1831

Reg. No. :

Name :

V Semester B.A. Degree (CBCSS – Supplementary)
Examination, November 2022
(2016-18 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 and **each** question carries **1** mark.

1. Gini Coefficient.
2. Prime numbers.
3. Void set.
4. Random Experiment.

(4×1=4)

PART – B

Short answer type questions, answer **any 7** questions and **each** question carries **2** marks.

5. Find the value of $\left[\frac{1}{25}\right]^{\frac{3}{2}}$.
6. Find the 5th term of the G.P. : 1/7, 1/14, 1/28 ... ?
7. If the demand and supply curve for computers is : $D = 100 - 6P$, $S = 28 + 3P$, where P is the price of computers, what is the quantity of computers bought and sold at equilibrium ?
8. What is a vertical line test ?
9. Discuss the distributive law of set theory.
10. Why measure of dispersion is important to determine the characteristics of a data set ?

P.T.O.



11. A train travels 125 km at a speed of 55 km/h, 200 km at 75 km/h, 250 km at 100 km and another 325 km at 125 Km/h. Find out the average speed of the train ?

12. The pass results of 50 students who took a class test is given below. If the mean mark of all the students was 51.6, find out the mean marks of the students who failed ?

Marks	40	50	60	70	80	90
F	8	10	9	6	4	3

13. Three unbiased coins are flipped. What is the probability of obtaining at least two tails ?

14. Mutually Exclusive and not Mutually Exclusive.

(7×2=14)

PART – C

Short essay type questions, answer **any 4** questions and **each** question carries **3** marks.

15. Write down various rules of logarithms.

16. Solve : $x - 7y = -11$
 $5x + 2y = -18$

17. What are the various types of function used in economics ?

18. Why measure of kurtosis is important to determine the characteristic of a data set, differentiate between meso, platy and leptokurtic and how to measure Kurtosis ?

19. Using the following data. Draw a Lorenz Curve.

X	5	30	125	350	750
F	22	78	124	24	9

20. A bag contain 5 white and 10 black balls. Three balls are taken out at random. Find the probability that all three balls drawn are black.

(4×3=12)



PART – D

Essay type questions, answer **any 2** questions and **each** question carries **5** marks.

21. Among a group of students, 50 played cricket, 50 played hockey and 40 played volley ball. 15 played both cricket and hockey, 20 played both hockey and volley ball, 15 played cricket and volley ball and 10 played all three. If every student played at least one game, find the number of students and how many played only cricket, only hockey and only volley ball.

22. Solve :

$$2x + 5y + 2z = - 38$$
$$3x - 2y + 4z = 17$$
$$-6x + y - 7z = - 12$$

23. The accident data for the last 50 weeks in National Highway is given. Find the average number of accident per week and also find its median and mode.

Number of accident	10 – 25	25 – 40	40 – 55	55 – 70	70 – 85	85 – 100
Number of weeks	6	20	44	26	3	1

24. Discuss the various approaches to measure probability. **(2×5=10)**
