



K21U 1412

Reg. No. : .....

Name : .....

V Semester B.A. Degree (CBCSS – Sup./Imp.)  
Examination, November 2021  
(2015-'18 Admns)  
**CORE COURSE IN ECONOMICS/DEVELOPMENT ECONOMICS**  
**5B 07 ECO : Basic Tools for Economic Analysis – I**

Time : 3 Hours

Max. Marks : 40

PART – A

Answer **all** questions and **each** question carries **1** mark.

1. Partition Values.
2. Rational number.
3. Vertical Line Test.
4. Event.

(4×1=4)

PART – B

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

5. Find  $\frac{x-1}{x} \times \frac{3x^2}{x^2-1}$ .
6. Solve the quadratic equation  $3x^2 + 5x - 2 = 0$  by the standard formula.
7. Find the equation of a straight line passing through the point (4, 5) and having a slope 6.
8. Find the equilibrium Price and Quantity.  
 $Q^S = 10 + 0.3p$   
 $Q^D = 15 - 1.5p$
9. Distinguish between a function and relation ? Determine whether the following relation is a function  $B = \{(1, 3), (0.3), (2, 1), (4, 2)\}$ .
10. What are the essential qualities of a good average ?
11. A student's final grade in Mathematics, Physics, English and Economics are respectively 85, 76, 95 and 80. If the respective credits received for the courses are 3, 5, 4 and 1. Determine an appropriate average grade.

P.T.O.

K21U 1412



12. The average mark declared by a teacher in a class test is 18. The class consists of only 10 students. Later on it was discovered that a student's mark was misread as 22 instead of 12. Find the correct average mark.
13. In throwing single throw of two dice, what is the probability of getting same number on both throw ?
14. Certain Events and Impossible event.

(7×2=14)

PART – C

Short Essay type questions. Answer **any 4** questions and **each** question carries **3** marks.

15. Evaluate  $\frac{(5.02)^3 \sqrt{21.13}}{\sqrt{47.2(9.2)^2}}$
16. Solve the following pair of simultaneous equation.  
 $4x - 3y - 15 = 0$   
 $3x - 3y - 6 = 0$
17. What are the characteristics of a function ?
18. Discuss Lorenz Curve, its uses and construction.
19. From the following information calculate kurtosis and interpret the nature and form of distribution.

<b>X</b>	0	1	2	3	4	5	6	7
<b>F</b>	1	8	2	5	7	5	8	4

20. Ten cards numbered 1 to 10 are placed in a box, mixed up thoroughly and then one card is drawn randomly. If it is known that the number on the drawn card is more than 3, what is the probability that it is an even number ?

(4×3=12)

PART – D

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

21. Solve :  
 $x + 2y + 3z = 11$   
 $2x + 4y - 2z = 6$   
 $3x + 4y - 5z = 3$
22. What are the various types of Function and discuss its uses in economics ?
23. From the following data, calculate the standard deviation and variance.

<b>Marks</b>	00 – 20	20 – 40	40 – 60	60 – 80	80 – 100
<b>Frequency</b>	13	11	20	26	28

24. What is probability and discuss the various approaches to the measurement of probability ?

(2×5=10)