



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.

P.T.O.



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.

<b>Class</b>	0 – 10	10 – 20	20 – 30	30 – 40	40 – 50	50 – 60	60 – 70
<b>Frequency</b>	8	12	20	23	18	7	2

19. Define frequency polygon and draw frequency polygon for the following data.

<b>Class</b>	10 – 20	20 – 30	30 – 40	40 – 50	50 – 60	60 – 70
<b>Frequency</b>	6	9	15	20	10	5

20. Axiomatic approach of probability theory.

(4×3=12)



PART - D



Answer **any two** questions. **Each** carries **five** marks.

21. Solve for x, y and z

$$2x - y + z = 3,$$

$$x + 3y - 2z = 11$$

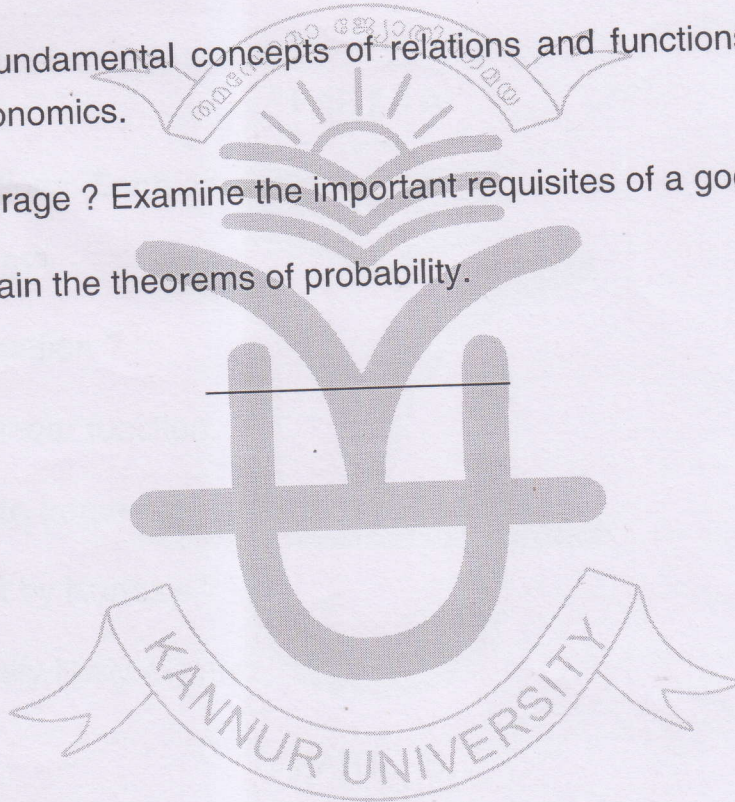
$$3x - 2y + 4z = 1$$

22. Describe the fundamental concepts of relations and functions highlighting their use in economics.

23. What is an average ? Examine the important requisites of a good average.

24. State and explain the theorems of probability.

(2×5=10)





K22U 2162

Reg. No. : .....

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V Semester B.A. Degree (CBCSS – OBE – Regular/Supplementary/  
Improvement) Examination, November 2022  
(2019 Admission Onwards)

CORE COURSE IN ECONOMICS/DEVELOPMENT ECONOMICS  
5B07 ECO/DEV ECO : Basic Tools for Economic Analysis – I

Time : 3 Hours

Max. Marks : 40

PART – A

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

1. Define dependent variable.
2. Solve  $4x + 9 = 45$ .
3. What is PPC ?
4. The marks obtained by 10 students are given below. Calculate arithmetic mean: 30, 25, 47, 15, 49, 42, 40, 28, 50, 19.
5. A card is drawn at random from a well shuffled pack of 52 cards. What is the probability that the drawn card is a king ?
6. Write a note on histogram.

PART – B

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

7. Find the mean and standard deviation from the following distribution.

Marks :	0 – 4	4 – 8	8 – 12	12 – 16
No. of students :	4	8	2	1

8. Explain Lorentz Curve.

P.T.O.



9. State addition theorem of probability.
10. Draw a Pie diagram to represent the following data of house hold consumption expenditure.

<b>Items</b>	:	Food	Health	Education	Others
<b>Expenditure</b>	:	2500	1200	700	500

11. Find the value of  $X$  if  $\log_7 X = 4$ .
12. Assume a demand function  $D = 33 - 3P$ .
- a) Plot this function.
- b) Find the price when quantity demanded is 3 units.
13. If the first term of an AP = 4 and the common difference is 2, find the 9<sup>th</sup> term.
14. Distinguish between census and sampling.

### PART – C

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

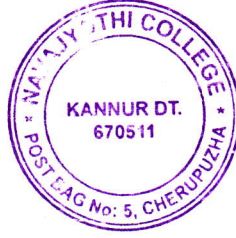
15. A flower stall made a profit of Rs. 5,000; Rs. 10,000; Rs. 80,000 in 1995, 1996 and 1997 respectively. Determine the average rate of growth of this store's profit.
16. Write a note on ogives.
17. Define quadratic equation and roots of quadratic equation.
18. Define conditional probability and independence of events.
19. If quantity demanded  $Q_d = 80 - 5P$  and quantity supplied  $Q_s = 10 + 2P$ , find equilibrium price and quantity.
20. Define geometric progression. If  $a = 1$ ,  $r = 3$  and  $n = 4$ , find the sum of the series.



PART – D

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

21. The probability that a management trainee will remain with a company is 0.6. The probability that an employee earns more than Rs. 10,000 per month is 0.5. The probability that an employee is a management trainee who remained with the company or who earns more than Rs. 10,000 per month is 0.7. What is the probability that an employee earns more than Rs. 10,000 per month, given that he is a management trainee who stayed with the company ?
22. What are the major measures of central values ? Explain.
23. Explain the application of graphs and functions in economics with examples.
24. Elaborate the measures of dispersion. If mean = 15 and standard deviation = 3, what is coefficient of variation ?
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**K21U 4586**

Reg. No. : .....

Name : .....

**V Semester B.A. Degree CBCSS (OBE) Regular Examination, November 2021  
(2019 Admns. Only)**

**CORE COURSE IN ECONOMICS/DEVELOPMENT ECONOMICS  
5B07 ECO/DEV ECO : Basic Tools For Economic Analysis – I**

Time : 3 Hours

Max. Marks : 40

**PART – A**

Answer **all** questions. **Each** carries **one** mark.

1. What is PPC ?
2. What do you mean by classification of data ?
3. What is isoquant ?
4. Simply the following equation using the rule of exponents  $x^4 \cdot x^5$ .
5. What is meant by average cost ?
6. What is range ?

**(1×6=6)**

**PART – B**

Answer **any six** questions. **Each** carries **two** marks.

7. What do you mean by Gini coefficient ?
8. What is meant by probability ?
9. State the difference between census method and sampling method.
10. Draw the graph of  $3y + 15x = 30$ .
11. Explain mutually exclusive events.
12. From the following sample, calculate harmonic mean: 1, 3, 5, 6, 8.
13. What is the difference between finite set and infinite set ?

**P.T.O.**



14. You know that two tennis player, R and S, have played 36 matches and that R has won 24 of them. You offer to bet a friend your Rs. 15 against Rs. 10 that R will win the next match. Is this a fair bet ? (2×6=12)

PART – C

Answer **any four** questions. **Each** carries **three** marks.

15. Explain the demerits of arithmetic mean.
16. Describe the relation between mean, median and mode when the data is skewed.
17. Graphically explain Lorenz curve.
18. Find the mean deviation about the mean for the following data: 6, 7, 10, 12, 13, 4, 8, 12.
19. Sketch the graph of the total cost function  $TC = 3q^2 + 5q + 48$  for  $q = 0$  to  $q = 5$ . Find the marginal and average cost functions.
20. Write a note on the merits of census sampling. (4×3=12)

PART – D

Answer **any two** questions. **Each** carries **five** marks.

21. Explain tabulation. And what are the essential parts of a table ?
22. Calculate standard deviation from the following data.

Wages (In Rs.)	Number of Workers
20 – 24	21
25 – 29	34
30 – 34	43
35 – 39	56
40 – 44	58
45 – 49	67
50 – 54	56
55 – 59	47
60 – 64	34
65 – 69	26
70 – 74	20





23. Explain various tools used in the presentation of data.

24. Calculate median and mode from the following data.

Marks	Number of students
5 – 9	4
10 – 14	6
15 – 19	7
20 – 24	10
25 – 29	15
30 – 34	12
35 – 39	8
40 – 44	6
45 – 50	3

(5×2=10)