(Pages : 4) **P – 2257**

Reg. No. : .....

Name : .....

Fifth Semester B.A. Degree Examination, December 2022

First Degree Programme under CBCSS

Economics

Core Course VII

EC 1542 : STATISTICAL METHODS FOR ECONOMICS

(2019 Admission onwards)

Time : 3 Hours Max. Marks : 80

SECTION – A (Very Short Answer)

Explain **all** the following in one word to maximum of **two** sentences.

Each question carries **1** mark.

1. Statistical methods
2. Median.
3. Cumulative Frequency.
4. Scatter Diagram.
5. Correlation Coefficient
6. Index number.
7. Secular trend.
8. Probability.
9. Sample Space.
10. Equally Likely Events.

(10 × 1 = 10 Marks)

P.T.O.

SECTION – B (Short Answer)

Answer any **eight** questions not exceeding in **one** paragraph.

Each question carries **2** marks.

11. What is meant by univariate analysis?
12. How does a Histogram construct? Illustrate.
13. What are the properties of Mean?
14. Find the mean, median and mode for the data set 3, 7, 9, 4, 5, 4, 6, 7 and 9.
15. Define Harmonic Mean.
16. List out the important measures of Dispersion.
17. Define Partial Correlation.
18. Describe a Regression line
19. Distinguish between dependent and independent variables.
20. What are the different types of index numbers?
21. What is meant by Base shifting?
22. Describe the method of Moving Averages.
23. Discuss the use of Time series analysis.
24. Define Mutually Exclusive Events.
25. Find probability of drawing a White ball from a bag containing Seven white and Three red balls.
26. Describe the Binomial distribution.

(8 × 2 = 16 Marks)

SECTION – C (Short Essay)

Answer any **six** questions not exceeding **120** words.

Each question carries **4** marks.

27. What are the Functions of statistics? Discuss.

28. What is meant by a variable? Discuss various types of variables.

29. Define ogive and illustrate two types of ogives with an example.

30. What are the important requisites of a good average?

31. Find the AM for the following distribution.

Class:	100-200	200-300	300-400	400-500	500-600	600-700	700-800
Frequency:	10	18	20	26	30	28	18

32. What is Lorenz Curve? Discuss it uses.

33. Discuss the Properties of Correlation coefficient.

34. Calculate the Rank correlation between sales and Advertisement.

Sales:	90	85	68	75	82	80	95	70
Advertisement:	7	6	2	3	4	5	8	1

35. Examine the Applications of regression analysis

36. Compute Fisher's Index from the following data:

Commodities	Base Year		Current Year	
	Price	Quantity	Price	Quantity
A	4	3	6	2
B	5	4	6	4
C	7	2	9	2
D	2	3	1	5

37. What are the Components of Time Series? Discuss.

38. The blood groups of 200 people is distributed as follows: 50 have type A blood, 65 have B blood type, 70 have O blood type and 15 have type AB blood. if a person from this group is selected at random, what is the probability that this person has O blood type?

(6 × 4 = 24 Marks)

SECTION – D (Long Essay)

Answer any **two** questions, not exceeding **four** pages.

Each question carries **15** marks

39. Define Statistics. Explain the Use of Statistics in Economics.

40. Examine the important Measures of Central Tendency with their merits and demerits.

41. Why is Standard deviation considered to be the best measure of dispersion? Find the Standard deviation for the following scores given below:

Weight (kg):	50-52	52-54	54-56	56-58	58-60
No. of students	17	35	28	15	5

42. Examine the similarities and differences between Correlation and regression with examples.

43. What are the Methods of Constructing Index Numbers and Explain problems in the construction of index numbers?

44. State and explain the multiplication the theorem of probability with example.

($2 \times 15 = 30$ Marks)

———————