

(Pages : 4)

M – 1241

Reg. No. :

Name :

Fifth Semester B.A. Degree Examination, December 2021

First Degree Programme Under CBCSS

Economics

Core Course VII

EC 1542 – STATISTICAL METHODS FOR ECONOMICS

(2019 Admission)

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. Absolute Frequency
2. Median
3. Dispersion
4. Scatter Diagram
5. Bivariate data
6. Index number
7. Irregular variation
8. Probability

P.T.O.

9. Sample Space
10. Axiomatic Approach of Probability theory

(10 × 1 = 10 Marks)

SECTION – B (Short Answer)

Answer **any eight** questions not exceeding in **one** paragraph. **Each** question carries **2** marks.

11. What are the Characteristics of Statistics?
12. Discuss types of Ogives.
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 Geometric Mean.
16. Find the mean deviation of 3, 6, 6, 7, 8, 11, 15, 16.
17. Define Partial Correlation.
18. Describe a Regression line.
19. Distinguish between dependent variable and independent variable.
20. Discuss Simple Aggregative Method of Index number.
21. What is meant by Base shifting?
22. Describe Method of Moving Averages.
23. Discuss the significance of analysis of time series.
24. Define Mutually Exclusive Events.
25. A bag contains five white and four red balls. Find probability of drawing a red ball
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. Briefly explain the Characteristics of Statistics.
28. What is meant by variable? Discuss various types of variables?
29. What are the Graphs of frequency distribution? Explain.
30. Discuss the merits and demerits of mode.
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 its uses.
33. Discuss the Properties of Correlation coefficient.
34. Calculate the Karl Pearson's correlation Coefficient for the following data:
- | | | | | | | |
|----|---|---|---|---|---|---|
| X: | 2 | 3 | 5 | 5 | 6 | 8 |
| Y: | 9 | 8 | 8 | 6 | 5 | 3 |
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. A jar contains 3 red marbles, 7 green marbles and 10 white marbles. If a marble is drawn from the jar at random, what is the probability that this marble is white?

(6 × 4 = 24 Marks)

SECTION – D (Long Essay)

Answer **any two** questions not exceeding **four** pages. **Each** question carries **15** marks.

39. Define Statistics? And explain the Use of Statistics in Economics.
40. What is an average? Examine the important Requisites of a good average.
41. Explain the important measures of Dispersion? Find the Standard deviation and Coefficient of variation for the following scores given below:
- | | | | | | | |
|-------------|-------|-------|-------|-------|-------|-------|
| Score: | 10-20 | 20-30 | 30-40 | 40-50 | 50-60 | 60-70 |
| Frequency : | 10 | 15 | 25 | 10 | 10 | 5 |
42. Examine the similarities and differences between Correlation and regression with examples.
43. What are the characteristics of index numbers? and Explain problems in the construction of index numbers.
44. State and explain the theorems of probability.

(2 × 15 = 30 Marks)