

B.A. (CBCS) DEGREE EXAMINATION,  
NOVEMBER 2023.

First Semester

Economics – Core

STATISTICS FOR ECONOMICS – I

(For those who joined in July 2023 onwards)

Time : Three hours

Maximum : 75 marks

PART A — (10 × 1 = 10 marks)

Answer ALL questions.

Choose the correct answer :

1. The number of questions in questionnaire should be
  - (a) 5
  - (b) 10
  - (c) 50
  - (d) as small as possible keeping in view the purpose of the survey

2. The word statistics is derived from the \_\_\_\_\_ word 'Status'.
  - (a) English
  - (b) Latin
  - (c) Italy
  - (d) Greek
3. \_\_\_\_\_ classification refers to the classification of data according to some characteristics that can be measured.
  - (a) Geographical
  - (b) Chronological
  - (c) Quantitative
  - (d) Qualitative
4. The number of observations corresponding to a particular class is known as the \_\_\_\_\_ of that class.
  - (a) Frequency
  - (b) Total
  - (c) Limits
  - (d) Interval
5. It is a moderately asymmetrical frequency distribution, the values of mean is 40 and median is 45, estimate the value of the mode
  - (a) 5
  - (b) 85
  - (c) 55
  - (d) 42.5
6. In a symmetrical distribution
  - (a) Mean > Median > Mode
  - (b) Mean < Median < Mode
  - (c) Mean = Median = Mode
  - (d) Mean > Median < Mode

7. When mean is 79 and standard deviation is 8, C.V =
  - (a) 9.875
  - (b) 10.127
  - (c) 632
  - (d) 71
8. \_\_\_\_\_ is used in the study of the degree of inequality in the distribution of income and wealth.
  - (a) Coefficient of variation
  - (b) Variance
  - (c) Measures of dispersion
  - (d) Lorenz curve
9. \_\_\_\_\_ implies that, as one variable is increasing, the other is also increasing.
  - (a) Positive correlation
  - (b) Negative correlation
  - (c) Regression
  - (d) Linear correlation
10. Regression analysis reveals \_\_\_\_\_ between two variables.
  - (a) degree of relationship
  - (b) average relationship
  - (c) no relationship
  - (d) true relationship

PART B — (5 × 5 = 25 marks)

Answer ALL questions by choosing (a) or (b).

Each answer should not exceed 250 words.

11. (a) Explain the method of collecting primary data through 'Direct Personal Interview'.

Or

- (b) Define Secondary Data and mention the precautions to be taken before using the secondary data.

12. (a) What is meant by classification? State the objectives of classification.

Or

- (b) Represent the data in histogram and frequency polygon.

Class Interval :	40-50	50-60	60-70	70-80	80-90
Frequency :	36	87	121	154	133
Class Interval :	90-100	100-110	110-120	120-130	
Frequency :	95	50	30	10	

13. (a) Calculate arithmetic mean from the following data.

Marks : 0-10 10-30 30-60 60-100

No. of students : 5 12 25 8

Or

- (b) Explain the uses of median.

14. (a) Calculate Quartile Deviation and its coefficient from the following data.

Height of students (in cms) : 120 122 124 126 130 140 150 160

No. of students : 1 3 5 7 10 3 1 1

Or

(b) From the observation given below find out Karl Pearson's coefficient of Skewness.

Scores : 25, 26, 25, 25, 20, 25, 30, 25, 14, 25

15. (a) Find out Spearman's rank correlation coefficient.

X : 52 53 42 60 45 41 37 38 25 27

Y : 65 68 43 38 77 48 35 30 25 50

Or

(b) Given the following data.

$\bar{X} = 36$ ,  $\bar{Y} = 85$ ,  $\sigma_x = 11$ ,  $\sigma_y = 8$ ,  $r = 0.66$

Find the two regression equations and estimate the value of  $X$  when  $Y = 75$ .

PART C — (5 × 8 = 40 marks)

Answer ALL questions by choosing (a) or (b).

Each answer should not exceed 600 words.

16. (a) Clearly explain the uses and limitations of statistics.

Or

(b) Discuss the requirements of a good questionnaire.

Page 5 Code No. : 10799 E

17. (a) Discuss the various types of diagrams.

Or

(b) Describe the parts of a Table and State the rules that serve as a guide in tabulating statistical materials.

18. (a) Find Median for the following frequency distribution.

Class Interval : 30-32 32-34 34-36 36-38 38-40 40-42

f : 3 8 24 31 50 61

Class Interval : 42-44 44-46 46-48 48-50

f : 38 21 12 2

Or

(b) Calculate the mode for the data given below.

Marks : 50-53 53-56 56-59 59-62 62-65 65-68

No. of students : 3 8 14 30 36 28

Marks : 68-71 71-74 74-77

No. of students : 16 10 5

19. (a) Compute mean deviation from mean for the following data.

Height (cm) : 158 159 160 161 162 163 164 165 166

No. of persons : 15 20 32 35 33 22 20 10 8

Or

Page 6 Code No. : 10799 E

(b) Calculate standard deviation for the data given below.

Class : 0-10 10-20 20-30 30-40 40-50 50-60 60-70

Frequency : 8 12 17 14 9 7 4

20. (a) Describe the various types of correlation with examples.

Or

(b) Calculate the Karl Pearson's coefficient of correlation from the following data using 44 and 26 respectively as the assumed mean of  $X$  and  $Y$ .

X : 43 44 46 40 44 42 45 42 38 40 42 57

Y : 29 31 19 18 19 27 27 29 41 30 26 10

Page 7 Code No. : 10799 E