2024

(FYUGP)

(3rd Semester)

ECONOMICS

Paper Code : ECO/SEC–2

(Methods of Data Analysis)

Full Marks : 37.5 *Pass Marks* : 40%

Time : 2 hours

(PART : B – DESCRIPTIVES)

(*Marks* : 25)

The questions are of equal value

Answer ***any five*** from the following taking at least one question from each unit. (5x5 = 25)

Unit – I

1. Represent the given data on the enrolment of students in various departments in DGC by a multiple bar diagrams.

Year	Economics	English	History	Pol. Science
2021	45	50	30	20
2022	20	20	15	10
2023	40	30	46	15

2. Draw cumulative frequency curve or ogive for the following data:

Marks –	0-10	10-20	20-30	30-40	40-50	50-60	60-70
Students –	4	4	7	10	12	8	5

Unit II

3. Calculate coefficient of correlation from the following data by actual mean method and interpret the result.

Roll No. –	1	2	3	4
Marks in Math –	48	35	17	23
Marks in Eco –	45	20	40	25

4. Calculate Pearson's coefficient of correlation of the following data of price and demand:

Price (Rs.) –	78	89	96	66
Demand (Kg.) –	125	177	156	112

5. The ranking of students in 2 subjects, Economics and English are as follows:

Economics –	3	5	8	7	4	10
English –	6	4	9	8	1	2

What is the coefficient of rank correlation?

6. Calculate the coefficient of correlation from the following data by the Spearman's Rank difference method.

Price of tea –	75	88	95	70	60	80	81	50
Price of coffee –	120	134	150	115	110	140	142	100

Unit III:

7. Calculate regression equation of X on Y of the following data by deviations taken from actual mean.

X :	1	2	3	4	5
Y :	9	8	10	12	11

8. Calculate regression equation of Y on X of the following data by deviations taken from assumed mean.

X :	1	2	3	4	5
Y :	9	8	10	12	11

..... 0.5 mark for neatness .....

★★★

2024

(FYUGP)

(3rd Semester)

ECONOMICS

(Skill Enhancement Course)

Paper Code : ECO/SEC-2

(Methods of Data Analysis)

(PART : A—OBJECTIVES)

(Marks : 12)

The figures in the margin indicate full marks for the questions

A. Put a Tick (✓) mark against the correct answers in the brackets provided : (Answer any 12) 1x12 = 12

1. The false base lines are drawn to make the reader aware of the fact that the difference between zero and the smallest value of the variable under study is extremely large.

(a) Yes ( )

(b) No ( )

(c) Can't say ( )

2. Presentation of quantitative information on geographical basis is called

(a) Pictogram ( )
(b) Historigram ( )
(c) Histogram ( )
(d) Cartogram ( )

3. The arrangement of the collected data in a systematic order is called ..... of data.

(a) classification ( )
(b) organisation ( )
(c) tabulation ( )
(d) All the above ( )
(f) Only (a) and (c) ( )
(g) Only (b) and (c) ( )

4. The data collection through .....method is used for economic planning of a country.

(a) sample ( )
(b) primary ( )
(c) census ( )
(d) secondary ( )

5. If the ratio of change between 2 variables is uniform/same then there exists ..... correlation.

(a) linear ( )
(b) non-linear ( )
(c) curvilinear ( )
(d) positive ( )

6. If equal proportional changes of the 2 related variables are in reverse direction, there is ..... correlation

(a) perfect positive ( )

(b) perfect negative ( )

(c) limited degree ( )

(d) no ( )

7. Diagrams and graphs are useful for the layman, not for the experts because they are not of help in analysing data.

(a) Yes ( )

(b) No ( )

(c) Can't say ( )

8. Class intervals of : – 5, – 10, – 15, – 20, is a case of ..... method with only ..... limit

(a) inclusive, upper ( )

(b) exclusive, lower ( )

(c) exclusive, upper ( )

(d) inclusive, lower ( )

9. In regression analysis, the variable we are trying to predict is called ..... variable

(a) dependent or explanatory ( )

(b) independent or explained ( )

(c) dependent or explained ( )

10. When investigator select samples which he thinks are the most typical of the population with regard to the characteristics under consideration, it is a case of ..... sampling.

(a) convenience ( )

(b) cluster ( )

(c) judgement ( )

(d) quota ( )

11. There may be nonsense correlation but there is nothing like nonsense regression.

(a) Yes ( )

(b) No ( )

(c) Can't say ( )

12. ..... variables are exact or finite and are not normally fractions.

(a) Individual ( )

(b) Discrete ( )

(c) Continuous ( )

(d) All the above ( )

13. Discrete variable series can be presented in a continuous type of series and vice versa.

(a) Yes ( )

(b) No ( )

(c) Can't say ( )

14. Rectangles, squares, circles or pie-diagrams are ..... dimensional diagrams.

(a) One- ( )

(b) Two- ( )

(c) Three- ( )

(d) Four- ( )

15. When both the variables increase or decrease in the same direction, the 2 variables are said to have ..... correlation

(a) positive ( )

(b) negative ( )

(c) neither ( )

(d) both ( )

16. The correlation analysis of the amount of rainfall and yield of rice in a certain constant temperature is a case of ..... correlation

(a) simple ( )

(b) partial ( )

(c)multiple ( )

(d) direct ( )

17. The correlation analysis by Rank Differences was developed by

(a) Karl Pearson ( )

(b) Charles Edward Spearman ( )

(c) Francis Galton ( )

***