

UG/FYUP Semester-End Final Exams-2023

BA 3rd Semester (EC3.SEC-1)

METHODS OF DATA ANALYSES

Full Marks: 37.5

Pass Mark: 15

Time: 2 Hours

(Figures in the right hand margin indicate marks)

SECTION-1 (OBJECTIVE)

(15 X 0.5= 7.5)

Choose the Correct Answer:

1. The word 'DATA' is originated from the Latin word:
 - a) Detum
 - b) Datum
 - c) Datam
 - d) Detem

2. The DATA which are collected from the place of origin is known as
 - a) Primary data
 - b) Secondary data
 - c) Primary & secondary data
 - d) None of the above

3. Which of the following is an example of secondary data ?
 - a) RBI bulletin
 - b) Government publication
 - c) Committees and commissions
 - d) All of the above

4. A study in Statistics that helps to interpret the variability of data is known as
 - a) Standard Deviation
 - b) The measure of Central tendency
 - c) The measure of dispersion
 - d) None of the above

(PTO)

5. In the Absolute Measure of dispersion, the Standard Deviation is always
 - a) Zero
 - b) Negative
 - c) Positive
 - d) None of the above
6. Which of the following are types of correlation ?
 - a) Positive and Negative
 - b) Simple, Partial and Multiple
 - c) Linear and Nonlinear
 - d) All of the above
7. Which of the following statements is true for correlation analysis ?
 - a) It is a bivariate analysis
 - b) It is a multivariate analysis
 - c) It is a univariate analysis
 - d) Both (a) and (c)
8. The slope of the regression line of Y on X is also referred to as the:
 - a) Regression coefficient of X on Y
 - b) The correlation coefficient of X on Y
 - c) Regression coefficient of Y on X
 - d) Correlation coefficient of Y on X.
9. If one event occurs, another event cannot happen, i.e., the events that cannot occur simultaneously are called as:
 - a) Exhaustive Events
 - b) Mutually exclusive events
 - c) Equally likely events
 - d) Independent events
10. All possible outcomes for a random experiment are called
 - a) sample events.
 - b) exhaustive events.
 - c) numerical events.
 - d) none of the above.
11. Which of the following statements is not true about probability ?
 - a) The probability of an impossible event is 0.
 - b) Probability can be greater than 1 or less than 0.
 - c) Probability cannot be greater than 1.
 - d) None of the above

12. Which of the following are the major characteristics of index numbers ?
- It is expressed in percentages
 - It measures the net or relative changes in variables
 - It measures changes over a period of time
 - All of the above
13. The time period for which an index number is determined is known as
- Base period
 - Normal period
 - Current period
 - None of the above
14. Fisher's method of calculating the index number is based on the
- Geometric mean
 - Arithmetic mean
 - Harmonic mean
 - None of the above
15. The purchasing power of money is
- Not equal to the consumer price index number
 - Reciprocal of the consumer price index number
 - Equal to the consumer price index number
 - None of the above

SECTION-II (Answer any five in brief)

(Marks: 1x5=5)

- What do you mean by the term 'sample' in statistics ?
- What is univariate and bivariate frequency distribution ?
- What do you mean by 'measures of central tendency' ?
- Define 'correlation' in statistics.
- Define 'sample point' and 'sample space'.
- What do you mean by 'Mutually Exclusive Events' ?
- Define index number.

SECTION-III (DESCRIPTIVE)

(Marks: 5x5=25)

Answer the following questions:

- (a) Distinguish between primary and secondary data.
Or
(b) What is sample survey? State its merits and demerits.

(PTO)

2. (a) State and explain the characteristics of a good average.

Or

(b) Calculate standard deviation for the following data:

Class	0-10	10-20	20-30	30-40	40-50	50-60	60-70	70-80	80-90
Frequency	3	8	15	20	25	10	9	6	4

3. (a) Define positive, negative, linear and non-linear correlation with suitable example.

Or

(b) Find the coefficient of rank correlation between sales and expenses of 10 firms.

Sales	91	88	86	85	85	76	70	62	52	50
Expenses	85	82	82	90	67	84	51	81	36	32

4. (a) State and explain the addition and multiplication theorem of probability.

Or

(b) A bag contains 5 white and 8 red balls. Two drawings of 3 balls are made such that (i) the balls are replaced before the second trial; (ii) the balls are not replaced before the second trial. Find the probability that the first drawing will give 3 white and the second 3 red balls in each case.

5. (a) State and explain the problems that involved in the construction of index number.

Or

(b) Calculate Fisher's Ideal Index for the year 1975 from the following data:

Commodities	1960		1975	
	Price	Quantity	Price	Quantity
A	4	50	10	40
B	3	10	9	12
C	2	5	4	3
D	5	20	6	8
