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(FOR THE CANDIDATES ADMITTED

DURING THE ACADEMIC YEAR 2022 ONLY) **REG.NO. :**

N.G.M.COLLEGE (AUTONOMOUS) : POLLACHI

END-OF-SEMESTER EXAMINATIONS : DECEMBER-2022

COURSE NAME: B.B.A **MAXIMUM MARKS: 50**

SEMESTER: I **TIME : 3 HOURS**

PART - III

MATHEMATICAL TECHNIQUES -1

SECTION – A (10 X 1 = 10 MARKS)

ANSWER THE FOLLOWING QUESTIONS.
MULTIPLE CHOICE QUESTIONS. K1

1. Number of elements in a matrix of order 2*3 is _____.
   a) 5 b) 2 c) 6 d) 3
2. The word statistics is used in two senses namely _____,
   a) singular and plural b) narrow and board c) narrow and wider d) Small and big
3. The best measurement of central tendency is _____.
   a) H.M b) G.M c) A.M d) Mode.
4. The degree of kurtosis of a distribution is measures relative to the _____.
   a) Peakedness b) Simple c) Platkutic p d) Mesokurtic
5. The co-efficient of correlation will be _____.
   a) <1 b) >1 c) between +1 and -1 d) >0

ANSWER THE FOLLOWING IN ONE (OR) TWO SENTENCES. (K2)

6. Define Matrices.
7. What is primary data?
8. Define median**.**
9. What is Kurtosis?
10. What is correlation?

SECTION – B (5 X 3 = 15 MARKS)

ANSWER EITHER (a) OR (b) IN EACH OF THE FOLLOWING QUESTIONS. K3

11. a) Examine whether AB=B and BA= A Given A = $\begin{bmatrix} +4 & -2 \\ 3 & -1 \end{bmatrix}$ **B=**$\begin{bmatrix} 2 & 4 \\ 3 & 6 \end{bmatrix}$ **given**

(OR)

b) Calculate the simple interest on the sum of Rs. 6,000 at 10% p.a for 3 years

12. a) Describe the various types of classification.

(OR)

b) Show the parts of a table.

(CONTD…..2)

13. a) Calculate the median from the following data.

Marks	10-25	25-40	40-55	55-70	70-85	85-100
F	6	20	44	26	3	1

(OR)

b) Calculate the harmonic mean from the following data.

X	10	12	14	16	18	20
F	5	18	20	10	6	1

14. a) The sum and the sum of the square of 60 items are 1860 and 67100 respectively . Mode is 28.49 find Pearson's coefficient of skewness.

(OR)

b) Calculate coefficient of skewness by karl Pearson's method

Profit (Rs.lakhs)	10-20	20-30	30-40	40-50	50-60
No of companies	18	20	30	22	10

15. a) Show scatter diagram method of correlation.

(OR)

b) Calculate the rank correlation coefficient for the percentage of marks secured by a group of a 8 students in economics and statistics

Marks in economics	50	60	65	70	75	40	70	80
Marks in statistics	80	71	60	75	90	82	70	50

SECTION – C (5 X 5 = 25 MARKS)

ANSWER EITHER (a) OR (b) IN EACH OF THE FOLLOWING QUESTIONS. K4&K5

16. a) Classify the different types of matrixes.

(OR)

b) Compute the compound interest for Rs. 2,500 for 4 year at 8 % per annum.

17. a) Point out the different methods of collection of primary data.

(OR)

b) Discuss the scope of statistic.

18. a) Illustrate the geometric mean of the following series.

Marks	0-10	10-20	20-30	30-40	40-50
No of students	5	7	15	25	8

(OR)

b) Illustrate the mode for the following data using grouping and analysis table

Class interval	0-5	5-10	10-15	15-20	20-25	25-30	30-35	35-40
F	9	12	15	16	17	15	10	13

19. a) Illustrate Bowley's coefficient of skewness

No of children per family	0	1	2	3	4	5	6
No of families	7	10	16	25	18	11	8

(OR)

b) illustrate B_1 and B_2 and interpret their value

Age	20-25	25-30	30-35	35-40	40-45
No of workers	1	15	107	25	2

20. a) Compare correlation and regression.

(OR)

b) Compute the two regression equations from the following data.

X	10	12	13	12	16	15
Y	40	38	43	45	37	43

ETHICAL PAPER

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