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(FOR THE CANDIDATES ADMITTED DURING THE ACADEMIC YEAR 2021 ONLY)

23UBM1A1

REG.NO. :

N.G.M.COLLEGE (AUTONOMOUS) : POLLACHI
END-OF-SEMESTER EXAMINATIONS : NOVEMBER-2023
COURSE NAME: B.B.A **MAXIMUM MARKS: 75**
SEMESTER: I **TIME : 3 HOURS**

PART - III
MATHEMATICAL TECHNIQUES – I

SECTION – A (10 X 1 = 10 MARKS)

ANSWER THE FOLLOWING QUESTIONS.
MULTIPLE CHOICE QUESTIONS. (K1)

1. A matrix that consist of only one row is called _____.
   a) Row matrix b) column matrix c) square matrix d) null matrix.
2. Statistics presents facts in a _____.
   a) Definite b) indefinite form c) abnormal form d) random
3. Data means _____.
   a) Facts b) figures c) information d) all of these.
4. Arithmetic mean is greater than _____.
   a) mean b) G.M c) H.M d) mode.
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 matrix.
7. What is data?
8. Write down the merits of H.M.
9. Define skewness.
10. What do you mean by regression?

SECTION – B (5 X 5 = 25 MARKS)

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

11. a) Compute the inverse of $\begin{bmatrix} -6 & -12 \\ -8 & -8 \end{bmatrix}$

(OR)

b) Show the compound interest.

12. a) List out the types of table.

(OR)

b) Write down the limitations of statistic.

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) Compute the mean number of persons per house given

No of person per house	2	3	4	5	6	Total
No of house	10	25	30	25	10	100

(CONTD…..2)

14. a) Explain in details the different measures of skewness.

(OR)

b) Calculate the Bowley's coefficient of skewness

Annual sales (in Rs 000)	0-20	20-50	50—100	100-250	250-500	500-1000
No of items	20	50	69	30	25	19

15. a) Compute Karl Pearson's coefficient of correlation from the following data.

X	9	8	7	6	5	4	3	2	1
Y	15	16	14	13	11	12	10	8	9

(OR)

b) Classify the different types of correlation.

SECTION – C (5 X 8 = 40 MARKS)

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

(K4 (Or) K5)

16. a) Compute the inverse of matrix $A = \begin{Bmatrix} 4 & 0 & 2 \\ 2 & 10 & 2 \\ 3 & 9 & 1 \end{Bmatrix}$

(OR)

b) Find the compound interest for Rs. 75,000 for 31/2 years at 51/2 per annum

17. a) Explain the different types of data and their sources.

(OR)

b) Explain the rules of tabulation.

18.a) Compute the mode

Marks	0-19	2039	40-59	60-79	80-99
No of students	5	20	35	20	12

(OR)

b) Compute G.M for the data given below

X	10	15	25	40	50
F	4	6	10	7	3

19. a) Compute bowley's co-efficient 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) From the data given below calculate Bowlwy's co-efficient of skeness

Age in years	20-25	25-30	30-35	35-40	40-45	45-50	50-55	55-60
No of persons	50	70	80	180	150	120	70	50

20.a) Compute karl Pearson's coefficient of correlation from the following data.

X		10	12	18	8	13	20	22	15	5	17
Y		88	90	94	86	87	92	96	94	88	85

(OR)

b) Compute the regression line using actual mean .

X	3	5	6	8	9	11
Y	2	3	4	6	5	10

ETHICAL PAPER

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