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

21UCC4A4

REG.NO. :

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

END-OF-SEMESTER EXAMINATIONS : MAY-2023

COURSE NAME: B.Com.-C.A **MAXIMUM MARKS: 70**

SEMESTER: IV **TIME : 3 HOURS**

PART - III
BUSINESS STATISTICS

SECTION - A (10 X 1 = 10 MARKS)

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

1. Statistics originated as statecraft has _____ markedly.
   a. grown b. ingrown c. alike d. unavoidable
2. An average is a value which is typical or _____ of a set of data
   a. single b. mean c. representative d. point
3. Average is central _____.
   a. data b. value c. degree d. variation
4. Simple Correlation refers to the relationship between _____ variables.
   a. three b. one c. four d. two
5. Regression analysis is used in statistics and other _____.
   a. disciplines b. methods c. equation d. variable

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

6. What is Statistics?
7. Define Harmonic Mean.
8. What do you mean by Measures of Dispersion?
9. What do you mean by Correlation?
10. Write the meaning of Regression.

SECTION – B (5 X 4 = 20 MARKS)

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

11. a) The expenditure of 10 families in Rupees are given below. Find out the Mean.

Family	A	B	C	D	E	F	G	H	I	J
Expenditure	30	70	10	75	500	8	42	250	40	36

(OR)

b) Calculate the Mean number of persons per house. Given that

No. of persons per house	2	3	4	5	6	Total
No. of houses	10	25	30	25	10	100

(CONTD…..2)

12.a) Calculate the Median from the following data.

Wages Rs.	50	75	100	150	250	Total
No. of Labourers	8	14	10	5	3	40

(OR)

b) Calculate Geometric Mean for the data given below:

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

13.a) Weekly wages of a labourer are given below. Calculate Q.D and coefficient of Q.D.

Weekly Wages Rs.	100	200	400	500	600	Total
No. of weeks	5	8	21	12	6	52

(OR)

b)

X	2	4	6	8	10
F	1	4	6	4	1

Find mean deviation for the above data.

14.a) Compute the coefficient of correlation between X – Advertisement Expenditure and Y – Sales.

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

(OR)

b)

X	21	36	42	37	25
Y	47	40	37	42	43

For the data given above, calculate the rank correlation coefficient.

15.a) Find the regression equation of Y on X from the following data.

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

Also estimate Y when X = 20.

(OR)

b) For the data given below, Find the regression equation X and Y.

X	146	152	158	164	170	176	182
Y	75	78	77	79	82	85	86

(CONTD…..3)

SECTION - C (4 X 10 = 40 MARKS)

ANSWER ANY FOUR OUT OF SIX QUESTIONS
(16th QUESTION IS COMPULSORY AND ANSWER ANY THREE QUESTIONS
(FROM Qn. No : 17 to 21) (K4 (Or) K5)

16. Explain the scope and uses of statistics.

17. Calculate Arithmetic Mean for the following

Marks	20-30	30-40	40-50	50-60	60-70	70-80
No. of Students	5	8	12	15	6	4

18. Calculate the Mode from the following

Size	10	11	12	13	14	15	16	17	18
Frequency	10	12	15	19	20	8	4	3	2

19. Find out Standard Deviation from the following.

Class Interval	0-10	10-20	20-30	30-40	40-50	Total
Frequency	2	5	9	3	1	20

20. Find Karl Pearson's coefficient of correlation.

X	100	101	102	102	100	99	97	98	96	95
Y	98	99	99	97	95	92	95	94	90	91

21. From the data given below, find:
    (a) The two regression equations
    (b) The coefficient of correlation between the marks in mathematics and Statistics.
    (c) The most likely marks in Statistics when the marks in Mathematics is 30.

Marks in Mathematics (X)	25	28	35	32	31	36	29	38	34	32
Statistics (Y)	43	46	49	41	36	32	31	30	33	36

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ETHICAL PAPER