(NO. OF PAGES: 3)

(FOR THE CANDIDATES ADMITTED **22UCF4A1**

DURING THE ACADEMIC YEAR 2022-25 ONLY) **REG.NO. :**

N.G.M.COLLEGE (AUTONOMOUS) : POLLACHI
END-OF-SEMESTER EXAMINATIONS : MAY 2024
B.COM FINANCE **MAXIMUM MARKS: 50**
SEMESTER:IV **TIME : 3 HOURS**

PART - III

BUSINESS STATISTICS

SECTION – A **(10 X 1 = 10 MARKS)**

ANSWER THE FOLLOWING QUESTIONS.(K1)

1. Which statistics can be considered? _____

a) Art & Science b) Facts c) Figures d)Information

2. Which denotes Co-efficient of range ?_____

a) L-S b)S-L c)L-S/L+S d)L+S/L-S

3. Who developed the Rank correlation?_____

a) Fisher b)Karl pearson c)Spearmen d)Halsey

4. Which is otherwise called as consumer price index ?_____

a)cost of living index b)weighted index c)unweighted index d)fisher's Ideal index

5. What method is used to measure short-term fluctuation in a time series data influenced by the ___

a) averages b) moving average c) ratio to moving average d)ratio to trend

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

6. Define arithemetic mean?

7. What is standard deviation?

8. What is meant by regression equation?

9. Define index number.

10. State the kinds of seasonal variation.

SECTION – B **(5 X 3 = 15 MARKS)**

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

11. a)What are the characteristics of statistics?

(OR)

b) Calculate the mean number of the persons per house.Given

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

(CON..2)

12. a)10 students of B.Com. class of a college have obtained the following marks in statistics out of 100 marks.Calculate the standard deviation.

S.No.	1	2	3	4	5	6	7	8	9	10
Marks	5	10	20	25	40	42	45	48	70	80

(OR)

b)Calculate the standard deviation of the following series.

X	6	9	12	15	18
F	7	12	13	10	8

13. a)State the uses of regression equation.

(OR)

b)From the following data find the percentage of variation in Y that is explained by the variation in X:N=11,ΣX=117,ΣY=260,ΣX^2 = 1313, ΣY^2 = 6580,ΣXY= 2827

14. a)From the following data construct an index for 1995 taking 1994 as base:

Commodities	**A**	**B**	**C**	**D**	**E**
Price in 1994(Rs.)	50	40	80	110	20
Price in 1995(Rs.)	70	60	90	120	20

(OR)

b)Compute cost of living index number.

Items	**Food**	**Fuel**	**Clothing**	**Rent**	**Others**
Index number	352	220	230	160	190
Weights	48	10	8	12	15

15. a) Write a note on time series analysis.

(OR)

b)Calculate 5 yearly moving average of number of students studying in a commerce college as shown by the following figures:

Year	No.of students
1987	332
1988	311
1989	357
1990	392
1991	402
1992	405
1993	410
1994	427
1995	405
1996	438

SECTION – C (5 X 5 = 25 MARKS)

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

16. a) Calculate the mode.

Marks	0-19	20-39	40-59	60-79	80-99
No.of students	5	20	35	20	12

(OR)

b)Calculate the harmonic mean from the following data.

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

ETHICAL PAPER

17. a)Find the quartile deviation for the following:-
391,384,407,522,672,591,777,733,1490,2488.

(OR)

b)Calculate 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

18. a)Compute the co-efficient of correlation between X-advertisement expenditure and Y-sales.

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

(OR)

b)Calculate the two regression equations from the following data:

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

19. a) Using Fishers ideal formula,compute price and quantity index number for 1999 with 1996 as base year,given the following:-

Year	Commodity A		Commodity B		Commodity C	
	Price (Rs.)	Quantity (kg.)	Price (Rs.)	Quantity (kg.)	Price (Rs.)	Quantity (kg.)
1996	5	10	8	6	6	3
1999	10	12	7	7	5	4

(OR)

b)Calculate the cost of living index number using family budget method:

Commodity	A	B	C	D	E	F	G	H
Quantity in Base year(units)	200	50	50	20	40	50	60	40
Price in base years (Rs.)	10	30	40	200	25	100	20	150
Price in current year(Rs.)	12	35	50	300	50	150	25	180

20. a)Using three year moving averages determine the trend and short-term fluctuation.

Year	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992
Production	21	22	23	25	24	22	25	26	27	26

(OR)

b)Fit a straight line trend equation to the following data by the method of least squares and estimate the value of sales for the years 1985.

Year	1979	1980	1981	1982	1983
Sales(inRs.)	100	120	140	160	180

****

ETHICAL PAPER