23104618

QP CODE: 23104618

Reg No : .....

Name : .....

BBM DEGREE (CBCS) REGULAR/IMPROVEMENT/REAPPEARANCE EXAMINATIONS, FEBRUARY 2023

First Semester

Bachelor of Business Management

Complementary Course - BM1CMT04 - BUSINESS STATISTICS I

2017 Admission Onwards

8AC0D1D1

Time: 3 Hours Max. Marks : 80

Part A

*Answer any **ten** questions.*

*Each question carries **2** marks.*

1. Give any two uses of Statistics in Business Management.
2. Which are the different methods of collecting secondary data?
3. What are Dimensional diagrams?
4. Give the formula for finding weighted arithmetic mean.
5. How is Median determined in an ungrouped frequency distribution (Discrete Series)?
6. Define Geometric mean.
7. The marks obtained by seven students are 5,10,15,20,25,30,45.Find the harmonic mean.
8. Find the Range and Coefficient of Range from the following data.

Daily Wage (in Rs.)	6	7	8	9	10	11	12	15
No.of workers	10	15	12	18	25	20	10	4

9. Find out the quartile deviation of the following series
   170,82,110,100,150,120,200,116,250.
10. Define Standard Deviation.

11. What are the uses of correlation?

12. Define linear and nonlinear regression.

(10×2=20)

Part B

*Answer any **six** questions.*

*Each question carries **5** marks.*

13. Briefly explain any two limitations of Statistics.

14. Compute mean, median and mode for the monthly income of eight families in a locality. 700, 100, 500, 750, 130, 250, 80, 422.

15. The mean annual salary paid to all employees of a company was Rs5000.The mean annual salaries paid to male and female employees were Rs5200 and Rs.4200 respectively. Determine the percentage of males and females employed by the company.

16. The midpoints and their corresponding frequencies are given below

Mid point : 1 2 3 4 5 6

Frequency: 4 8 20 16 10 6

Find the mode.

17. Find the mean and mean deviation of the following data

size : 0-10 10-20 20-30 30-40 40-50 50-60 60-70

freuency: 7 12 18 25 16 14 8

18. The arithmetic mean and standard deviation of a series of 20 items were calculated by a student as 20 cm and 5 cm respectively. But while calculating, an item 13 was misread as 30 . Find the correct arithmetic mean and standard deviation.

19. The ranking of 10 students in two subjects A and B are as follows,find rank correlation

A	3	5	8	4	7	10	2	1	6	9
B	6	4	9	8	1	2	3	10	5	7

20. In a partially destroyed record of an analysis of correlation data the following resultsonly are legible.

Variance of x = 9

Regression equations :8x-10y+66=0 and 40x-18y=214

Find: 1) the mean valuesof x and y

2) the coefficient of correlation

3) the standard deviation of y

21. From the data given below find the regression equation of x on y.

x:	2	3	7	8	19
y:	10	9	11	8	12

(6×5=30)

Part C

*Answer any **two** questions.*

*Each question carries **15** marks.*

22. The following table gives the wages of the workers in a certain factory .

Daily wages	120-125	125-130	130-135	135-140	140-145	145-150	150-155	155-160	160-165	165-170	170-175	175-180	180-185	185-190	190-195
No.of workers	21	29	19	39	43	94	73	68	36	45	27	48	21	12	5

Draw a histogram and a frequency curve for the data given above.

Find the workers whose wages less than Rs. 157.

23. Explain the merits and demerits of various measures of central tendency.

24. Explain the merits and demerits of various measures of dispersion.

25. Find Karl Pearson's coefficient of correlation

X :	98	70	40	20	85	75	95	80	10	5
Y :	85	65	32	30	80	60	80	70	20	10

(2×15=30)