Reg. No ....   Name **23U151**

B. B.A. DEGREE END SEMESTER EXAMINATION : NOVEMBER 2023
SEMESTER 1 : INTEGRATED MARKETING AND NEW MEDIA
COURSE : **19U1CRBBA3 : BUSINESS STATISTICS**
(For Regular - 2023 Admission and Improvement / Supplementary – 2022/2021/2020 Admissions)

Time : Three Hours   Max. Marks: 60

PART A
Answer All (1 mark each)

1. Define the term statistics
2. What is range?
3. The range of a set of data is 13.67 and the largest value is 70.08. Find the smallest value.
4. Explain the term cyclic variation
5. Explain the term negative correlation
6. Explain the term bimodal series
7. Define the term secondary data
8. List the formula for calculating mean under short cut method?

(1 x 8 = 8)

PART B
Answer any 6 (2 marks each)

9. Write notes on Spear man's Rank Correlation
10. Explain the scope of statistics in economics
11. 4 students were asked to write the total number of hours per week they spent on watching television. With this information find the standard deviation of hours spent for watching television.

x	6	7	8	9	10	11	12
f	3	6	9	13	8	5	4

12. The arithmetic mean of daily wages of A &Co. and B &Co. is Rs.50 and Rs. 70 Respectively The number of workers employed in these firms were 200 and 400 respectively. Determine the combined average wages of both the firms
13. Mention any two functions of statistics
14. Find the range and its coefficient for the following weight of patients coming to the hospital

Weight in Kg	10-20	20-30	30-40	40-50	50-60
Patients	2	3	5	4	2

15. Identify the disadvantages of measures of central tendency.
16. Weite notes on seasonal variation

(2 x 6 = 12)

PART C
Answer any 4 (5 marks each)

17.   Find the missing frequency from the following data if the average mark is 16.82.

Marks	Frequency
0-5	10
5-10	12
10-15	16
15-20	?
20-25	14
25-30	10
30-35	08

18. Identify the differences between correlation and Regression

19. Explain the term components of time series

20. Calculate weighted arithmetic mean

No: of offices	10	15	20	25	30	35	40
No: of computers per office	2	6	19	17	10	12	8

21. Explain the different parts of a good table

22. The following distribution relating to marks obtained by students in an examination

Marks	10-20	20-30	30-40	40-50	50-60	60-70	70-80	80-90
No. of Students	2	4	5	7	5	3	8	6

Calculate Standard deviation

(5 x 4 = 20)

PART D
Answer any 2 (10 marks each)

23. The table below shows the weights (Kg) of members in a sport club. Calculate the Mean,Median and Mode of the distribution.

Masses	40-49	50-59	60-69	70-79	80-89	90-99
Frequency	6	8	12	14	7	3

24. Fit a straight-line trend to the following series by the method of least squares
The data given is the annual profit in thousands of rupees in certain business.

Year	2002	2003	2004	2005	2006	2007	2008
Annual profit in 000' Rupees	60	72	75	65	80	85	95

Also estimate the profit in 2009

25. Calculate the standard deviation and coefficient of variation from the following data:

Marks	5-10	10 -15	15-20	20-25	25-30	30-35	35- 40
No. of students	18	22	20	14	8	6	4

26. Define statistics. Explain various functions and limitations of statistics

(10 x 2 = 20)