Reg. No…….. Name…… **23U127**

B. A.B. DEGREE END SEMESTER EXAMINATION : NOVEMBER 2023

SEMESTER **1: BUSINESS ANALYTICS**

COURSE: **23U1CRBAB02: BUSINESS STATISTICS**

(*For Regular 2023 Admission)*

Time: Three Hours Max. Marks: 60

PART A

Answer All (1 mark each)

1. Define the term equal sets with the help of an example.
2. Explain the term cumulative frequency.
3. Explain the term coefficient of range.
4. Define the term singleton sets with the help of an example.
5. Explain the term favourable Event.
6. List the formula for calculating mean under short cut method.
7. Explain the term class boundary.
8. Explain the term impossible event.

(1 x 8 = 8)

PART B

Answer any 6 (2 marks each)

9. Two cards are drawn at random from a pack of 52 cards. What is the probability that either both are black or both are queen?
10. Mention any two functions of statistics.
11. Explain the scope of statistics in economics.
12. The mean marks of 40 students in a class is 40. Later it was found that an item of 42 was taken as 24. Calculate correct mean
13. Calculate range

    23, 81, 20, 19, 17, 14, 30, 32, 26, 23, 27 and 38
14. Calculate range from the following

    12, 18, 20, 12, 16, 14, 30, 32, 28, 12, 12 and 35.
15. Three unbiased coins are tossed. What is the probability of getting at most two heads?
16. List any two subsets of the set $\cup = \{1, 3, 5, 7, 9, 11, 13\}$

(2 x 6 = 12)

PART C

Answer any 4 (5 marks each)

17. In a class, 40% of the students like Mathematics and 25% of students like Physics and 15% like both the subjects. One student select at random, find the probability that he likes Physics if it is known that he likes Mathematics.
18. Explain the importance of statistics in different fields.

19. Explain various types of classifications in measures of central tendency.
20. Explain the term intersection of sets, list the properties of intersection.
21. Calculate weighted arithmetic mean.

No: of offices	10	15	20	25	30	35	40
No: of computers per office	4	5	12	14	18	20	22

22. From the data given below, calculate quartile deviation and its coefficient

Class	10-20	20-30	30-40	40-50	50-60	60-70
Frequency	10	18	16	26	12	16

(5 x 4 = 20)

PART D

Answer any 2 (10 marks each)

23. What do you mean by statistics? Explain various features and functions of statistics
24. Answer the following :
    (i) A speaks the truth in 75% of cases and B in 80% of cases. In what percent of cases are they likely to contradict each other in narrating the same event?
    (ii) A card is drawn at random from a pack of 52 cards.
        (a) What is the probability that it is neither a spade nor a jack?
        (b) What is the probability that it is a red card
        (c) What it the probability that it is a black King
25. Below is a given data of income of workers in a factory. Calculate Inter quartile range , quartile deviation and coefficient of Quartile Deviation.

Income Rs:('000)	10-12	12-14	14-16	16-18	18-20
Workers	14	18	23	18	7

26. Calculate Median from the following.

Marks More than	0	10	20	30	40	50	60
No: of Students	60	52	42	30	14	6	4

(10 x 2 = 20)