

B.Com(ISM) DEGREE EXAMINATION, APRIL 2020
II Year III Semester
Business Mathematics and Statistics - I

Time : 3 Hours

Max.marks :75

Section A ($10 \times 2 = 20$) Marks

Answer any **TEN** questions

1. Define Finite and Infinite Set.
2. Define Set.
3. $A = \{0,1,2\}$. Find all the subsets of A.
4. What is Simple Interest?
5. Calculate the Compound Interest, when the amount is Rs. 1,479 and the Principal is Rs. 1,000.
6. Mention the two kinds of bill.
7. Define Statistics.
8. Find the Mean for the following marks
40, 50, 55, 78, 58, 60, 73, 35, 43, 48
9. Define Skewness.
10. Mention the methods of measuring Dispersion.
11. Define Correlation.
12. Define Regression.

Section B ($5 \times 5 = 25$) Marks

Answer any **FIVE** questions

13. Explain De Morgan's Laws.
14. $A = \{\text{Ram, Rahim, Richard}\}$ and $B = \{\text{Githa, Glory}\}$. Find $A \times B$
15. The simple interest on a certain principal for 5 years is Rs. 360 and the interest is $\frac{9}{25}$ of the principal. Find the principal and the interest rate.
16. Compute the interest on Rs. 1,000 for 10 years at 4% per annum, the interest beign paid annually.
17. Calculate Geometric mean of the following: 50, 72, 54, 82, 93
18. Calculate mean deviation from mean and also the coefficient of mean deviation for the following data:
100, 150, 200, 250, 360, 490, 500, 600, 671

19. Calculate coefficient of correlation from the following data.

X	12	9	8	10	11	13	7
Y	14	8	6	9	11	12	3

Section C ($2 \times 15 = 30$) Marks

Answer any **TWO** questions

20. In a survey of 5000 persons, it was found that 2,800 read Indian Express and 2,300 read The Hindu while 400 read both papers. How many read neither Indian Express nor The Hindu?
21. Find the true discount and the present worth of a bill for Rs. 1,660 due in 9 months at 5% per annum.
22. Locate median from the following:

Size of shoes	Frequency
5	10
5.5	16
6	28
6.5	15
7	30
7.5	40
8	34

23. Calculate Karl Pearson's Coefficient of Skewness for the following data:
25, 15, 23, 40, 27, 25, 23, 25, 20

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