38123

Reg. No. | | | | | | | | |

I Semester B.B.A.(A.M) Degree Examination, August - 2021

BUSINESS ADMINISTRATION

Quantitative Techniques for Management - I

(CBCS Semester Scheme 2019-20 Fresh)

Paper : 1.5

Time : 3 Hours **Maximum Marks : 70**

Instructions to Candidates:

Answer should be written in **English** only.

SECTION - A

Answer any **Five** sub-questions. Each sub-question carries **Two** marks. **(5×2=10)**

1. a) What do you mean by Natural Numbers?

   b) Find LCM of 16, 24 and 36.

   c) What is Matrix?

   d) If $A=\begin{bmatrix}4 & 2\\ 6 & 4\end{bmatrix}$, $B=\begin{bmatrix}8 & 4\\ 6 & 2\end{bmatrix}$ Find A+B.

   e) If Mean = 12, Mode = 13 find Median.

   f) What is Histogram?

   g) What is Base Year?

SECTION - B

Answer any **Three** questions. Each question carries **Six** marks. **(3×6=18)**

2. If $A=\begin{bmatrix}4 & 2\\ 6 & 4\end{bmatrix}$, $B=\begin{bmatrix}8 & 4\\ 6 & 2\end{bmatrix}$ show that AB = BA.

3. From the following data of marks obtained by 50 mathematics students, obtain the mean marks.

Marks	20	30	40	50	60	70	80	90
No. of Students	2	5	8	12	13	6	2	2

[P.T.O.

4. If $\frac{3x+5}{4x+2}=\frac{3x+4}{4x+7}$, find x

5. Compute standard deviation from the following data.

X	3	4	5	6	7	8	9
f	3	9	11	7	14	12	4

SECTION - C

Answer any **Three** questions. Each question carries **Fourteen** marks. **(3×14=42)**

6. a) Solve $3x+7y=13$ and $5x-2y=8$ by Elimination method. **(7)**

   b) Solve by Cramer's Rule. $6x+5y=2$, $4x-3y=14$. **(7)**

7. Find mode from the data given below. Also locate graphically.

Wages (Rs.)	0-10	10-20	20-30	30-40	40-50	50-60	60-70
No. of workers.	12	32	38	65	45	25	18

8. Calculate Bowley's Coefficient of skewness from the following data.

Wages (Rs.)	55-58	58-61	61-64	64-67	67-70
No. of workers.	12	17	23	18	10

9. Calculate Fisher's ideal index number for the following data and verify both. TRT and FRT tests.

Commodity	Base Year		Current year	
	Price	Quantity	Price	Quantity
A	10	49	12	50
B	12	25	15	20
C	18	10	20	12
D	20	5	40	2
E	22	8	45	5