

MBA-104

MSP-13

**M.B.A. DEGREE EXAMINATION —
JUNE, 2018.**

First Year

QUANTITATIVE TECHNIQUES

Time : 3 hours

Maximum marks : 75

PART A — (3 × 5 = 15 marks)

Answer any **THREE** questions.

1. Explain union and intersection set operators with Venn Diagrams.
2. What is Break Even Analysis?
3. Write a note on types of Correlation.
4. What is Normal Distribution? What are the main characteristics of Normal Distribution?
5. What are the components of Time Series?

PART B — (4 × 15 = 60 marks)

Answer any FOUR questions.

6. Given $A = \begin{bmatrix} 1 & 2 & 3 \\ -1 & 3 & 4 \\ 2 & 0 & 1 \end{bmatrix}$ $B = \begin{bmatrix} 2 & 0 & 1 \\ 2 & -1 & -2 \\ 1 & 1 & -1 \end{bmatrix}$

$C = \begin{bmatrix} 1 & 1 & -1 \\ 2 & 1 & -2 \\ 1 & -1 & 1 \end{bmatrix}$ verify that $AB \neq BA$.

7. Represent the following data by a Histogram.

Marks:	0-10	10-20	20-30	30-40	40-50
No. of students:	8	12	22	35	40

Marks:	50-60	60-70	70-80	80-90	90-100
No. of students:	60	52	40	30	5

8. Find the Standard Deviation from the following data.

Age under:	10	20	30	40	50	60	70	80
No. of People	15	30	53	75	100	110	115	125

9. One bag contains 4 white and 2 black balls. Another bag contains 3 white and 5 black balls. If one ball is drawn from each bag, find the probability that (a) both are white (b) both are black.

10. Compute Laspeyre's, Paasche's and Fisher's index numbers from the following data.

Item	Base Year		Current Year	
	Price (Rs.)	Quantity	Price (Rs.)	Quantity
A	5	25	6	30
B	3	8	4	10
C	2	10	3	8
D	10	4	3	5

11. What is meant by Regression Analysis? How does it help in Business Decision Making?
12. Discuss about various measures of Central Tendency.
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