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BBA (N)-403

Business Mathematics

Examination February, 2026

Time : 2:00 Hrs. Max. Marks : 70

Note* :–** This paper is of Seventy (70) marks divided into Two (02) Sections 'A' and 'B'. Attempt the questions contained in these Sections according to the detailed instructions given therein. ***Candidates should limit their answers to the questions on the given answer sheet. No additional (B) answer sheet will be issued.

Section–A

Long Answer Type Questions (2×19=38)

***Note* :–** Section 'A' contains Five (05) Long-answer type questions of Nineteen (19) marks each. Learners are required to answer any *two* (02) questions only.

1. Define Cartesian product of sets with a business-related example.

2. Define a matrix. Explain its types.

3. How many permutations of the word MARKET are possible ?

4. Differentiate :

$$f(x) = (x^3 - 1)/(x - 2)$$

5. If $A = \begin{bmatrix} 1 & 2 \\ 3 & 4 \end{bmatrix}$, find $| A |$.

Section–B

Short Answer Type Questions (4×8=32)

***Note* :–** Section 'B' contains Eight (08) Short-answer type questions of Eight (08) marks each. Learners are required to answer any *four* (04) questions only.

1. Explain union and intersection of sets with Venn diagrams.

2. Explain business applications of progressions.

3. Give business applications of integration.

4. What is an identity matrix ?

5. If U ={1, 2, 3, 4, 5, 6, 7, 8, 9, 10}, A = {1, 3, 5, 7}, find A′.

6. In an AP, $a = 7$, $d = 4$. Find S_{10}.

7. Simplify : $5^3 \cdot 5^{-2}$.

8. Compute the transpose of $A = \begin{bmatrix} 1 & 5 & 9 \\ 2 & 4 & 6 \end{bmatrix}$.

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