24CS-BCAP-SE-01-01006

Seat No. _____

BACHELOR OF COMPUTER APPLICATION-CS Examination

BCA - CS SEMESTER-1 JANUARY 2026 (NEP) JANUARY - 2026

MATHS. & STAT. FOUNDATION OF COMPUTER SCIENCE

Faculty Code : 017

Subject Code : 24CS-BCAP-SE-01-01006

Time : 1 Hours] **[Total Marks : 25**

Q.1 Attempt any two of the following. 10

(1)

1. Find the value of $\begin{vmatrix} 2x-1 & 5 \\ 4x+3 & -1 \end{vmatrix}$

2. Find the value of $\begin{vmatrix} 1 & 1 & -3 \\ 4 & 5 & -6 \\ 4 & -2 & 3 \end{vmatrix}$

(2) Write any Five Properties of Determinant

(3) Define the following:1. Column Matrix2. Square Matrix3. Symmetric Matrix4. Transpose of the Matrix5. Adjoint of Matrix

(4) Find the inverse of the matrix $A = \begin{bmatrix} 2 & 3 & 1 \\ 1 & 2 & 3 \\ 3 & 1 & 2 \end{bmatrix}$

Q.2 Attempt any two of the following. 10

(1) Calculate the mean for the following frequency distribution:

Marks	0-10	10-20	20-30	30-40	40-50	50-60	60-70	70-80	80-90	90-100
No. of Students	1	4	6	5	10	20	22	24	6	2

(2) Calculate the median for the following frequency distribution:

Class	0-20	20-40	40-60	60-80	80-100	100-120	120-140
Freuquency	1	4	6	5	10	20	22

(3) Calculate Mode for the following frequency distribution:

Class	0-5	5-10	10-15	15-20	20-25	25-30	30-35	35-40
Frequency	7	11	12	19	16	7	5	2

(4) Calculate Standard Deviation for the following frequency distribution:

Class	6	7	8	9	10	11	12
Frequency	3	6	9	13	8	5	4

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Q.3 Attempt any one of the following. 5

(1) The sum of nine terms of an A.P. is 117 and its eleventh term is 28. Find its 25^{th} term and sum of its 25 terms.

(2) The second term and fourth term of G.P are 18 and 72 respectively. Find the sum of its first 10 terms.

::: **END OF EXAM** :::

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