



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 : [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 Matrix 2. Square Matrix 3. Symmetric Matrix 4. Transpose of the Matrix 5. Adjoint of Matrix

(4)

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

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
Frequency	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

Q.3 Attempt any one of the following.

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