

BRIDGE COURSE(2021 - 2021 Batch)
(For Mathematics, Physics, Chemistry, CS and BCA)

UNIT – I: MATRIX

Introduction to Matrices – Types of Matrices – Addition, Multiplication and inverse of a matrix.

UNIT –II: DETERMINANT

Introduction to Determinant – finding the determinant – system of linear equations – cramer's rule.

UNIT – III: DIFFERENTIATION

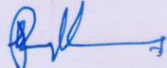
Basic concepts of differentiation – Formulas – product rule – successive differentiation – u/v method – partial function in differentiation - Simple problems only.

UNIT – IV: INTEGRATION


Basic Formulas of integration – Evaluating different types of integrals – Definite integrals - some properties of definite integrals - Simple problem only.

UNIT – V: STATISTICS

Measure of central tendency – Mean, Median, Mode and Standard Deviation.


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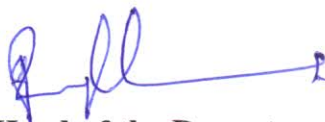
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DEPARTMENT OF MATHEMATICS AND STATISTICS

BRIDGE COURSE (2020 – 2021) – TEST – I

- The value of the determinant $\begin{vmatrix} \cos\theta & \sin\theta \\ -\sin\theta & \cos\theta \end{vmatrix}$ is -----
a) 0 b) 1 c) -1 d) $\tan\theta$
- The value of $\begin{vmatrix} a & 0 & 0 \\ d & b & 0 \\ e & f & c \end{vmatrix}$ is -----
a) abcdef b) abcd c) abc d) 0
- The value of $\begin{vmatrix} 12 & 25 & 13 \\ 4 & 8 & 12 \\ 2 & 4 & 6 \end{vmatrix}$ is ----
a) 96 b) 48 c) 0 d) 144
- The value of $\begin{vmatrix} \sec\theta & \tan\theta \\ \tan\theta & \sec\theta \end{vmatrix}$ is ----
a) $\sin\theta$ b) $\cos\theta$ c) 1 d) 0
- The order of $\begin{bmatrix} 2 & 5 & 8 \\ 3 & 4 & 1 \end{bmatrix}$ is ---
a) 3×2 b) 2×2 c) 2×3 d) 3×3
- A matrix has a value. Is it true/false?---
a) True b) False
- If $A = A^T$, then A is said to be a ---- matrix.
a) Orthogonal b) Symmetrical c) Unit d) None
- The inverse of unit matrix I is ----.
a) 0 b) The same I c) Scalar matrix d) None
- The derivative of a constant is ----
a) n b) c c) 0 d) $-\sin x$
- If $y = 5x^2 + 2x - 7 + e^{2x}$ then $dy/dx =$ ----
a) $5x + 2 - e^{2x}$ b) $10x + 2 + 2e^{2x}$ c) $10x + 2 + e^{2x}$ d) none
- If $y = e^{ax}$ then n^{th} derivative $y_n =$ ----
a) $a^n e^{ax}$ b) nae^{ax} c) e^{ax} d) a^n
- If $x = at^2$ and $y = 2at$ then find dy/dx ---
a) t b) 2a c) $-t$ d) $1/t$



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DEPARTMENT OF MATHEMATICS AND STATISTICS
BRIDGE COURSE (2020 – 2021) – TEST – II

- The value of the determinant $\begin{vmatrix} \sin\theta & \cos\theta \\ -\cos\theta & \sin\theta \end{vmatrix}$ is -----
a) 2 b) -1 c) $\cos 2\theta$ d) 1
- The value of $\begin{vmatrix} 1 & 0 & 0 \\ 2 & 3 & 0 \\ 4 & 5 & 6 \end{vmatrix}$ is -----
a) 16 b) 10 c) 18 d) 21
- The value of $\begin{vmatrix} 1 & 2 & 3 \\ 4 & 5 & 6 \\ 2 & 4 & 6 \end{vmatrix}$ is ----
a) 18 b) 30 c) 44 d) 0
- The value of $\begin{vmatrix} a & b & c \\ -a & b & c \\ 2a & b & c \end{vmatrix}$ is ----
a) 0 b) 4abc c) abc d) $2a^2bc$
- If A is 2×3 and B is 3×5 , then AB is
a) 2×2 b) 5×5 c) 2×5 d) 5×2
- If $A = \begin{bmatrix} 4 & -3 \\ 2 & 0 \\ 1 & 5 \end{bmatrix}$, then $\begin{bmatrix} 4 & 2 & 1 \\ -3 & 0 & 5 \end{bmatrix}$ is ----
a) A^{-1} b) A^T c) I d) none
- If $A = \begin{bmatrix} 1 & -1 \\ -1 & 1 \end{bmatrix}$ and $B = \begin{bmatrix} 1 & 1 \\ 1 & 1 \end{bmatrix}$ then the value of AB = -----
a) I b) 0 c) -A d) -I
- Construct a 3×3 matrix $A = (a_{ij})$, where $a_{ij} = i+j$
a) $\begin{bmatrix} 1 & 2 & 3 \\ 4 & 5 & 6 \\ 7 & 8 & 9 \end{bmatrix}$ b) $\begin{bmatrix} 2 & 4 & 6 \\ 8 & 10 & 12 \\ 14 & 16 & 18 \end{bmatrix}$ c) $\begin{bmatrix} 2 & 3 & 4 \\ 3 & 4 & 5 \\ 4 & 5 & 6 \end{bmatrix}$ d) none
- The derivative of x^n is ----
a) nx^{n-1} b) nx c) 0 d) nx^{n+1}
- If $y = 10x^2 + 2\sin x - 7 + \log x$ then $dy/dx =$ ----
a) $5x + 2 - 1/x$ b) $20x + 2\cos x + 1/x$ c) $10x + 2\sin x + 1/x$ d) none
- If $y = 2x^5 - 4x^2 + 3$ then find $y_2 =$ ----
a) $10x^4 + 8x$ b) $32x^4 - 8x + 3$ c) $10x^4 - 8x$ d) $40x^3 - 8$
- Differentiate $(x^2+1)(x+2)$
a) $5x^2 + 4x + 2$ b) $x^2 + 1$ c) $3x^2 + 4x + 1$ d) $x + 2$


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DEPARTMENT OF MATHEMATICS AND STATISTICS

I B.Sc MATHEMATICS- BRIDGE COURSE ATTENDANCE

S. No	Name	TEST 1 05/09-D5(25)	TEST 2 15/09-D1 (25)
1	Devadharshini. B	16	20
2	Dhanalakshmi. M	NA	19
3	Divya. R	NA	18
4	Jenijasmin.N	12	16
5	Kasturi.K	ABSENT	18
6	Mahalakshmi.G	16	20
7	Mercy.A	14	22
8	Nisha.M	14	22
9	Nivetha.S	16	21
10	Prabha.P	14	20
11	Sanmugashree.K	12	18
12	Sathanasakunthala.P	16	20
13	Sneha.M.	18	22
14	Sowmiya. R	NA	19
15	Srinithi.D	18	22
16	Suruthi.R	16	22
17	Swathi. M	14	21
18	Vaishnavi.M	12	22
19	Vinitha K	NA	20
20	Atamilarasan.P	ABSENT	22
21	Dharmarajan.R	ABSENT	ABSENT
22	Kirubakaran. S	NA	21
23	Mukesh kannan T	NA	18
24	Muthusamy.A	16	18
25	Narayanan.M	18	18
26	Prabakaran S	NA	15
27	Sabarivasan. S	NA	18
28	Sivaneshwaran. K	NA	18
29	Sudhakaran.G	NA	18


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S. No	Name	04/09-D4	05/09-D5	07/09-D6	08/09-D1	09/09-D2	10/09-D3	11/09-D4	12/09-D5	14/09-D6	15/09-D1
1	Devadharshini. B	P	P	P	P	P	P	P	P	P	P
2	Dhanalakshmi. M	NA	NA	NA	NA	NA	NA	NA	NA	NA	P
3	Divya. R	NA	NA	NA	NA	NA	NA	NA	NA	NA	P
4	Jenijasmin.N	P	P	P	P	P	P	ABSENT	P	P	P
5	Kasturi.K	ABSENT	ABSENT	P	P	P	P	P	P	P	P
6	Mahalakshmi.G	P	P	ABSENT	P	P	P	P	P	P	P
7	Mercy.A	P	P	P	P	P	P	P	P	P	P
8	Nisha.M	ABSENT	P	P	P	P	P	P	P	P	P
9	Nivetha.S	P	P	P	P	P	P	P	P	P	P
10	Prabha.P	P	P	P	P	P	P	P	P	P	P
11	Sanmugashree.K	P	P	P	P	P	P	P	P	P	P
12	Sathanasakunthala.P	P	P	P	P	P	P	P	P	P	P
13	Sneha.M.	P	P	P	P	P	P	P	P	P	P
14	Sowmiya. R	NA	NA	NA	NA	NA	NA	NA	NA	NA	P
15	Srinithi.D	P	P	P	P	P	P	P	P	P	P
16	Suruthi.R	P	P	P	P	P	P	P	P	P	P
17	Swathi. M	P	P	P	P	P	P	P	P	P	P
18	Vaishnavi.M	P	P	P	P	P	P	P	P	P	P
19	Vinitha K	NA	NA	NA	P	P	P	P	P	P	P
20	Atamilarasan.P	P	ABSENT	P	P	ABSENT	ABSENT	ABSENT	ABSENT	P	P
21	Dharmarajan.R	P	ABSENT	P	P	P	ABSENT	ABSENT	ABSENT	ABSENT	ABSENT
22	Kirubakaran. S	NA	NA	NA	NA	NA	P	P	P	P	P
23	Mukesh kannan T	NA	NA	NA	P	P	P	P	ABSENT	P	P
24	Muthusamy.A	P	P	P	P	P	P	P	P	P	P
25	Narayanan.M	P	P	P	P	P	P	P	P	P	P
26	Prabakaran S	NA	NA	NA	NA	NA	NA	NA	NA	NA	P
27	Sabarivasan. S	NA	NA	NA	NA	NA	NA	NA	NA	NA	P
28	Sivaneshwaran. K	NA	NA	NA	NA	NA	NA	NA	NA	NA	P
29	Sudhakaran.G	NA	NA	NA	NA	NA	NA	NA	NA	NA	P

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