MHT CET 2024 Question Paper (May 2 - Shift 1)

Mathematics Questions

Ques. One of the principal solutions of $\sqrt{3}\sec x = -2$ is equal to:

A. $\pi/4$
B. $2\pi/3$
C. $\pi/6$
D. $5\pi/6$

Ans. D

Ques. Integrate the following function w.r.t. X:

$$\frac{e^{3x}}{e^{3x}+1}$$

Ques. The general solution of

$$\left(x\frac{dy}{dx} - y\right)\sin\frac{y}{x} = x^3e^x \text{ is:}$$

A. $e^x (x-1) + \cos y/x + c = 0$
B. $xe^x + \cos y/x + c = 0$
C. $e^x (x+1) + \cos y/x + c = 0$

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D. ex^{x}- cos y/x+ c= 0

Ans. A

Ques. Find the area of the region bounded by the parabola $y^2 = 4ax$ and its latus rectum.

Ques. If p ^ q is F, p -> q is F then the truth values of p and q areA

A. T, T
B. T, F
C. F,T
D. F, F

Ans. B

Ques. The inverse of the matrix

$$\begin{bmatrix} 1 & 0 & 0 \\ 3 & 3 & 0 \\ 5 & 2 & -1 \end{bmatrix}$$ is:

A. $$-\frac{1}{3}\begin{bmatrix} -3 & 0 & 0 \\ 3 & 0 & 0 \\ 9 & 2 & -3 \end{bmatrix}$$

B. $$-\frac{1}{3}\begin{bmatrix} -3 & 0 & 0 \\ 3 & -1 & 0 \\ -9 & -2 & 3 \end{bmatrix}$$

C. $-\frac{1}{3}\begin{bmatrix} 3 & 0 & 0 \\ 3 & -1 & 0 \\ -9 & -2 & 3 \end{bmatrix}$

D. $-\frac{1}{3}\begin{bmatrix} -3 & 0 & 0 \\ -3 & -1 & 0 \\ -9 & -2 & 3 \end{bmatrix}$

Ans. B

Physics Questions

Ques. Question related to Combination of logic gates to find final output.

Ques. Question related to Young's double slit experiment.

Ques. Question related to current through LCR Circuit.

Chemistry Questions

Ques. Butter is an example of which type of colloid?

A. Liquid in solid
B. Solid in liquid
C. Liquid in liquid

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D. Gas in liquid

Ans. A

Ques. Question related to Preliminary test of Nanoparticles?
Ques. Question related to finding the pH value?

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