Mathematics MCQs

Mathematics MCQs for A-Level, FSc, Class 11, 12 students OR Mathematics MCQs for Engineering Universities Admission Test

1. $\sqrt{-3}\times\sqrt{-3}=?$
(A) 3
(B) -3
(C) $3i$
(D) $-3i$
(E) None of these

2. $\frac{d}{dx}b^x=?$
(A) b^x
(B) bx
(C) $b^x \ln b$
(D) $b^x \ln x$
(E) $b^x x \ln x$

3. If $A=\begin{bmatrix} a & -b \\ c & d \end{bmatrix}$ Then $A^{-1}=?$
(A) $ad-bc$
(B) $ad+bc$
(C) $\frac{1}{ad-bc}\begin{bmatrix} a & b \\ -c & d \end{bmatrix}$
(D) $\frac{1}{ad-bc}\begin{bmatrix} d & b \\ -c & a \end{bmatrix}$
(E) $\frac{1}{ad+bc}\begin{bmatrix} d & b \\ -c & a \end{bmatrix}$

4. If $\int_{\frac{\pi}{2}}^{a}\sin x dx=\frac{1}{2}$ Then $a=?$
(A) 0
(B) 1
(C) π
(D) $-\frac{\pi}{2}$
(E) $-\frac{\pi}{3}$

5. Find the values of x and y from the following equations:

$3x-2y=4$

$x+y=2$

(A) $x=2$ and $y=4$

(B) $x=4$ and $y=6$

(C) $x=\frac{3}{2}$ and $y=\frac{2}{3}$

(D) $x=\frac{8}{5}$ and $y=\frac{2}{5}$

(E) $x=\frac{4}{3}$ and $y=\frac{3}{5}$

6. If $f(x)=\frac{x+2}{3}$ Then $f^{-1}(x)=?$

(A) $3x-2$

(B) $2x-3$

(C) $\frac{3}{x+2}$

(D) Does not exist

(E) None of these

7. Matrix A has 4 rows and 3 columns, and Matrix B has 5 rows and 2 columns. The Matrix AB will have?

(A) 4 rows and 2 columns

(B) 5 rows and 3 columns

(C) 2 rows and 4 columns

(D) 3 rows and 5 columns

(E) 3 rows and 2 columns

8. Given that the Matrix $\begin{bmatrix} 2 & -3 \\ 4 & a \end{bmatrix}$ is singular. Find the value of a?

(A) 2

(B) -2

(C) 3

(D) 6

(E) -6

9. $(1+i)^4=?$

(A) 2

(B) $2i$

(C) -4

(D) $4i$

(E) $-6i$

10. $(\log_x xy)(\log_{xy} x^y) = ?$

(A) 1

(B) x

(C) y

(D) xy

(E) x^y