1. **The order of matrix [2 1] is …**
   (a) 2-by-1 (b) 1-by-2
   (c) 1-by-1 (d) 2-by-2

2. $\begin{bmatrix} \sqrt{2} & 0 \\ 0 & \sqrt{2} \end{bmatrix}$ **is called ……. Matrix.**
   (a) zero (b) unit
   (c) scalar (d) singular

3. **Which is order of a square matrix?**
   (a) 2-by-2 (b) 1-by-2
   (c) 2-by-1 (d) 3-by-2

4. **Which is order of a rectangular matrix?**
   (a) 2-by-2 (b) 4-by-4
   (c) 2-by-1 (d) 3-by-3

5. **Order of transpose of** $\begin{bmatrix} 2 & 1 \\ 0 & 1 \\ 3 & 2 \end{bmatrix}$ **is …**
   (a) 3-by-2 (b) 2-by-3
   (c) 1-by-3 (d) 3-by-1

6. **Adjoint of** $\begin{bmatrix} 1 & 2 \\ 0 & -1 \end{bmatrix}$ **is ………**
   (a) $\begin{bmatrix} -1 & -2 \\ 0 & 1 \end{bmatrix}$ (b) $\begin{bmatrix} 1 & -2 \\ 0 & -1 \end{bmatrix}$
   (c) $\begin{bmatrix} -1 & 2 \\ 0 & -1 \end{bmatrix}$ (d) $\begin{bmatrix} -1 & 0 \\ 2 & 1 \end{bmatrix}$

7. **If** $\begin{vmatrix} 2 & 6 \\ 3 & x \end{vmatrix} = 0$ **, then** x **is equal to**
   (a) 9 (b) –6
   (c) 6 (d) –9

8. **Product of** $[x \quad y] \begin{bmatrix} 2 \\ -1 \end{bmatrix}$ **is ……..**
   (a) $[2x+y]$ (b) $[x-2y]$
   (c) $[2x-y]$ (d) $[x+2y]$

9. **If** $X + \begin{bmatrix} -1 & -2 \\ 0 & -1 \end{bmatrix} = \begin{bmatrix} 1 & 0 \\ 0 & 1 \end{bmatrix}$ **then X is equal to………**
   (a) $\begin{bmatrix} 2 & 2 \\ 2 & 0 \end{bmatrix}$ (b) $\begin{bmatrix} 0 & 2 \\ 2 & 2 \end{bmatrix}$
   (c) $\begin{bmatrix} 2 & 0 \\ 0 & 2 \end{bmatrix}$ (d) $\begin{bmatrix} 2 & 2 \\ 0 & 2 \end{bmatrix}$

Additional MCQ

10. **The idea of a matrices was given by:__**
    (a) Arthur Cayley (b) Leonard Euler
    (c) Henry Briggs (d) John Napier

11. **If** $A = \begin{bmatrix} 1 & -2 \\ 3 & 4 \end{bmatrix}$ **then** $-A =$ _____
    (a) $\begin{bmatrix} -1 & 2 \\ -3 & -4 \end{bmatrix}$ (b) $\begin{bmatrix} 1 & -2 \\ -3 & -4 \end{bmatrix}$
    (c) $\begin{bmatrix} 1 & 2 \\ 3 & 4 \end{bmatrix}$ (d) $\begin{bmatrix} -1 & 2 \\ 3 & -4 \end{bmatrix}$

12. **A square matrix is symmetric if ___**
    (a) $A^t = A$ (b) $A^{-1} = A$
    (c) $(A^t)^t = -A^t$ (d) $A^t = -A$

13. **A square matrix is skew-symmetric if:**
    (a) $A^t = -A$ (b) $A^{-1} = -A$
    (c) $(A)^t = -A^t$ (d) $A^t = A$

14. **A square matrix A is called singular if**
    (a) $|A| \neq 0$ (b) $|A| = 0$
    (c) $A = 0$ (d) $A^t = 0$

15. A square matrix A is called non-singular if:

(a) $|A| = 0$ (b) A = 0

(c) $|A| \neq 0$ (d) $A^t = 0$

16. $(AB)^{-1} =$ _____

(a) $A^{-1} B^{-1}$ (b) $B^{-1} A^{-1}$

(c) BA   (d) AB

17. Additive inverse of $\begin{bmatrix} 1 & -2 \\ 0 & -1 \end{bmatrix}$ is _____

(a) $\begin{bmatrix} -1 & 2 \\ 0 & 1 \end{bmatrix}$ (b) $\begin{bmatrix} 1 & -2 \\ 0 & 1 \end{bmatrix}$

(c) $\begin{bmatrix} -1 & -2 \\ 0 & -1 \end{bmatrix}$ (d) $\begin{bmatrix} 1 & -2 \\ 0 & -1 \end{bmatrix}$

18. If A is a matrix then its transpose is denoted by:

(a) A^{-1} (b) A^t

(c) $-A$ (d) $(A^t)^t$

19. Which of the following is singular matrix?

(a) $\begin{bmatrix} 1 & 4 \\ 2 & 7 \end{bmatrix}$ (b) $\begin{bmatrix} 1 & 2 \\ 3 & 4 \end{bmatrix}$

(c) $\begin{bmatrix} 1 & 0 \\ 0 & 1 \end{bmatrix}$ (d) $\begin{bmatrix} 1 & 2 \\ 3 & 6 \end{bmatrix}$

20. If $A = \begin{bmatrix} a & b \\ c & d \end{bmatrix}$ then the det. A is:

(a) $ad - bc$ (b) $bc - ad$

(c) $ad + bc$ (d) $bc + ad$

Answer

1.	b	2.	c	3.	a	4.	c	5.	b
6.	a	7.	a	8.	c	9.	d	10.	a
11.	a	12.	a	13.	a	14.	b	15.	c
16.	b	17.	a	18.	b	19.	d	20.	a