

$$(1) \begin{bmatrix} Z_{11} & Z_{12} \\ Z_{21} & Z_{22} \end{bmatrix}$$

$$(3) \begin{bmatrix} Z_{11} & I_1 \\ Z_{21} & I_2 \end{bmatrix}$$

$$(2) \begin{bmatrix} Z_{11} & Z_{21} \\ Z_{12} & Z_{22} \end{bmatrix}$$

$$(4) \begin{bmatrix} V_1 & I_1 \\ V_2 & I_2 \end{bmatrix}$$

7. What is the final value to which the matrix  $\begin{bmatrix} 3 & 6 \\ 2 & 1 \end{bmatrix}$  can be reduced?

$$(1) -9$$

$$(2) 15$$

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

$$(4) \begin{bmatrix} 3 & 6 \\ 2 & 1 \end{bmatrix}$$

8. Two matrices are equal if, and only if, all corresponding elements are  
 (1) unequal. (2) equal. (3) zero. (4) one.

9. The number of rows and number of columns in a matrix  
 (1) are always equal. (3) can be equal or unequal.  
 (2) are always unequal. (4) always have a certain ratio.

10. The determinant of a matrix can be found only for a  
 (1) nonsquare matrix. (3) rectangular matrix.  
 (2) null matrix. (4) square matrix.

11. What is the determinant  $|A|$  of the following matrix?

$$[A] = \begin{bmatrix} 1 & 6 & -1 \\ 0 & 6 & 2 \\ 1 & 2 & 2 \end{bmatrix}$$

$$(1) \begin{vmatrix} 1 & 6 & -1 \\ 0 & 6 & 2 \\ 1 & 2 & 2 \end{vmatrix}$$

$$(3) \begin{vmatrix} 1 & 0 & 1 \\ 6 & 6 & 2 \\ -1 & 2 & 2 \end{vmatrix}$$

$$(2) \begin{vmatrix} 0 & 6 & 2 \\ 1 & 6 & -1 \\ 1 & 2 & 2 \end{vmatrix}$$

$$(4) \begin{vmatrix} 1 & 2 & 2 \\ 0 & 6 & 2 \\ 1 & 6 & -1 \end{vmatrix}$$