# 43 Lecture - CS201 

## Important Mcqs

1. What is a matrix in programming?
A. A tool used for debugging code
B. A rectangular array of numbers
C. A type of conditional statement
D. A data structure used for storing strings

Answer: B. A rectangular array of numbers
2. What is the process of adding two matrices called?
A. Multiplication
B. Subtraction
C. Addition
D. Division

Answer: C. Addition
3. Which data structure is commonly used for representing matrices in programming?
A. Stack
B. Queue
C. Array
D. Linked list

Answer: C. Array
4. What is the result of multiplying a $3 \times 2$ matrix with a $2 \times 3$ matrix?
A. A $3 \times 3$ matrix
B. A $3 \times 2$ matrix
C. A $2 \times 3$ matrix
D. A $2 \times 2$ matrix

## Answer: A. A $3 \times 3$ matrix

5. What is the identity matrix?
A. A matrix with zeros in all its elements
B. A matrix with ones in all its elements
C. A matrix with zeros in all its diagonal elements and ones in all its other elements
D. A matrix with ones in all its diagonal elements and zeros in all its other elements

Answer: D. A matrix with ones in all its diagonal elements and zeros in all its other elements
6. Which of the following is used for finding the determinant of a matrix?
A. Gaussian elimination
B. LU decomposition
C. QR decomposition
D. Singular value decomposition

## Answer: A. Gaussian elimination

7. Which of the following is true about a symmetric matrix?
A. It has equal number of rows and columns
B. It is a square matrix
C. It is equal to its transpose
D. It has only positive numbers as its elements

Answer: C. It is equal to its transpose
8. What is the inverse of a matrix?
A. A matrix with all its elements multiplied by -1
B. A matrix with all its elements squared
C. A matrix that when multiplied by the original matrix gives the identity matrix
D. A matrix with all its elements equal to the reciprocal of the original matrix

Answer: C. A matrix that when multiplied by the original matrix gives the identity matrix
9. Which of the following operations is not possible with matrices?
A. Addition
B. Subtraction
C. Multiplication
D. Division

Answer: D. Division
10. Which of the following is used for solving systems of linear equations represented by matrices?
A. Gaussian elimination
B. LU decomposition
C. QR decomposition
D. Singular value decomposition

Answer: A. Gaussian elimination

