

# 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 3x2 matrix with a 2x3 matrix?**

- A. A 3x3 matrix
- B. A 3x2 matrix
- C. A 2x3 matrix
- D. A 2x2 matrix

**Answer: A. A 3x3 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**