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