

44 Lecture - CS201

Important Mcqs

1. **What is a matrix class in programming?**

- A) A data structure that represents a collection of integers
- B) A programming construct that encapsulates the properties and behaviors of matrices
- C) A set of mathematical functions for manipulating matrices
- D) A type of programming language syntax

Answer: B

2. **What kind of operations are typically included in a matrix class?**

- A) String concatenation and splitting
- B) Looping and branching
- C) Matrix addition, multiplication, transposition, and determinant finding
- D) File I/O and network communication

Answer: C

3. **Why is a matrix class useful in programming?**

- A) It simplifies the implementation of matrix operations in programs
- B) It allows programmers to manipulate matrices with ease
- C) It promotes code reuse and modularity
- D) All of the above

Answer: D

4. **What are some typical member variables of a matrix class?**

- A) Dimensions and element values
- B) String and integer values
- C) Boolean and float values
- D) Time and date values

Answer: A

5. **What is the purpose of encapsulation in a matrix class?**

- A) To hide the implementation details of the class
- B) To allow external access to the class's member variables
- C) To expose the class's internal workings to other classes
- D) None of the above

Answer: A

6. **Which of the following is an example of a matrix operation that can be performed in a matrix class?**

- A) Sorting the elements of a matrix in ascending order

- B) Removing duplicate elements from a matrix
- C) Transposing a matrix
- D) Merging two matrices into one

Answer: C

7. Which of the following is a benefit of using a matrix class in programming?

- A) It can make programs more efficient by optimizing matrix operations
- B) It can help catch errors in matrix calculations
- C) It can make programs easier to read and understand
- D) All of the above

Answer: D

8. How do matrix classes differ from other programming constructs?

- A) They are a type of loop construct
- B) They are a type of branching construct
- C) They are a type of data structure
- D) They are a type of function

Answer: C

9. Which of the following is an example of a matrix class method for accessing the elements of a matrix?

- A) `get_element()`
- B) `add_element()`
- C) `delete_element()`
- D) `count_elements()`

Answer: A

10. Which of the following is an example of a matrix class method for modifying the elements of a matrix?

- A) `get_element()`
- B) `add_element()`
- C) `delete_element()`
- D) `set_element()`

Answer: D