

NR23: Principles of programming languages: 23CC508(Professional Elective- II)

Unit 3 SUB PROGRAMS AND BLOCKS

Multiple Choice Questions (MCQs)

1. A subprogram that returns a value is called a:

- A) Procedure
- B) Method
- C) Function
- D) Module

Answer: C) Function

2. Which parameter passing method copies the actual parameter's value to the formal parameter?

- A) Pass-by-Reference
- B) Pass-by-Value
- C) Pass-by-Result
- D) Pass-by-Name

Answer: B) Pass-by-Value

3. In pass-by-reference, the formal parameter receives:

- A) A copy of the value
- B) The memory address of the actual parameter
- C) A constant value
- D) The parameter name

Answer: B) The memory address of the actual parameter

4. Which parameter passing method allows changes made inside the subprogram to affect the actual parameter directly?

- A) Pass-by-Value
- B) Pass-by-Reference
- C) Pass-by-Result
- D) Pass-by-Constant

Answer: B) Pass-by-Reference

5. A subprogram that calls itself is known as:

- A) Iterative
- B) Recursive
- C) Modular
- D) Sequential

Answer: B) Recursive

6. Which of the following best describes an Abstract Data Type (ADT)?

- A) A data structure with no operations
- B) A combination of data and operations on that data
- C) A programming language translator
- D) A memory allocation technique

Answer: B) A combination of data and operations on that data

7. Data hiding is achieved through:

- A) Encapsulation
- B) Inheritance
- C) Recursion
- D) Iteration

Answer: A) Encapsulation

8. Which of the following is an example of an ADT?

- A) Compiler
- B) Queue
- C) Operating System
- D) Linker

Answer: B) Queue

9. The process of dividing a program into smaller manageable units is called:

- A) Encapsulation
- B) Modularity
- C) Inheritance
- D) Compilation

Answer: B) Modularity

10. Which parameter passing method copies the final value of the formal parameter back to the actual parameter after execution?

- A) Pass-by-Result
- B) Pass-by-Value
- C) Pass-by-Reference
- D) Pass-by-Name

Answer: A) Pass-by-Result

Fill in the Blanks

1. A reusable program unit that performs a specific task is called a _____.

Answer: subprogram

2. In pass-by-value, the _____ of the actual parameter is copied to the formal parameter.

Answer: value

3. In pass-by-reference, the formal parameter receives the _____ of the actual parameter.

Answer: address

4. A function that invokes itself is called a _____ function.

Answer: recursive

5. The process of hiding implementation details from users is called data _____.

Answer: abstraction

6. An ADT specifies the data and the _____ that can be performed on it.

Answer: operations

7. _____ is the mechanism used to combine data and methods into a single unit.

Answer: Encapsulation

8. A stack follows the _____ principle.

Answer: LIFO

9. A queue follows the _____ principle.

Answer: FIFO

10. Breaking a large program into smaller independent units is called _____.

Answer: modularity