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Indian Institute of Technology Kharagpur



PROGRAMMING IN JAVA

Assignment 3

TYPE OF QUESTION: MCQ

Number of questions: 10 Total mark: $10 \times 1 = 10$

QUESTION 1:

Which of the following keyword(s) can be used in a subclass to call the constructor of super class?

- a. super
- b. this
- c. extent
- d. extends

Correct Answer: a

Detailed Solution:

The keyword super is used to call the constructor of the super class from a subclass.

QUESTION 2:

If there is an abstract method in a class, then which of the following is/are NOT true.

- a. The class should be declared abstract.
- b. No object of the class can be created.
- c. Any subclass of the class may or may not be abstract class.
- d. A final class can have abstract method(s) and an abstract class can be declared final.

Correct Answer: d

Detailed Solution:

If a class includes abstract methods, then the class should be declared abstract. No object can be created for an abstract class. Further, if a class is derived from an abstract class and abstract method in the base class is not defined, then the derived class is also an abstract class.

QUESTION 3:

Which of the following statement is true regarding the order of execution of constructors in an inheritance hierarchy?

a. Base class constructor will be called followed by the derived class constructor.



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- b. Derived class constructor will be called followed by the base class constructor.
- c. Only Base class constructor will be called.
- d. Only derived class constructor will be called.

Correct Answer: a

Detailed Solution:

On object creation of derived class, first base class constructor and then the derived class constructor will be called.

QUESTION 4:

Which of the following is TRUE about the break statement in Java in the context of loop?

- a. Break stops the execution of entire program.
- b. Break forces the control out of the loop.
- c. Break forces the control out of the loop and starts the execution of next iteration.
- d. Break halts the execution of the loop for certain time frame.

Correct Answer: b

Detailed Solution:

A break statement inside a loop will terminate the loop execution and the control jumps to the statement immediately after the last statement in the loop.

QUESTION 5:

Which of the following is called when a method having the same name as that of the class is defined?

- a. abstract
- b. this
- c. final
- d. constructor

Correct Answer: d

Detailed Solution:

In a class, if more than one method having the same name but with different signature is used, then it is called a constructor.



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QUESTION 6:

Which of the following is NOT true about a method in a class?

- a. A method can be defined recursively.
- b. A method can be defined without any statement in it.
- c. A constructor is a special kind of method, which can be defined recursively.
- d. A method can be defined with variable number of arguments.

Correct Answer: c

Detailed Solution:

A constructor cannot be defined recursively. Other statements are true.

QUESTION 7:

```
public class B1 {
  private static int i = 0;
  private static int j = 0;

public static void main(String[] args) {
  int i = 4;
  int k = 5;

  {
   int j = 3;
   System.out.println("i + j is "+i +j);
  }

  k = i + j;
  System.out.println(k);
  System.out.println(j);
  }
}
```

What is the output of the above program?

```
a. i + j is 43
4
0
b. i + j is 7
9
3
c. i + j is 43
9
3
d. i + j is 7
```



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()

Correct Answer: a			

QUESTION 8:

Which inheritance is NOT supported in Java programming?

- a. Multiple inheritance using classes.
- b. Multiple inheritance using interfaces.
- c. Multilevel inheritance.
- d. Single inheritance.

Correct Answer: a

Detailed Solution:

Java does not support multiple inheritance of classes but it supports **multiple inheritance** for interfaces. Means, a class cannot inherit more than one class but it can inherit and implement multiple interfaces.

QUESTION 9:

Which of the following data structure is used to manage the recursion in Java?

- a. Array
- b. Stack
- c. Queue
- d. Tree

Correct Answer: b

Detailed Solution:

A stack is internally used by the Java run time manager to execute a recursive method.

QUESTION 10:

Hiding internal data from the outside world, and accessing it only through publicly exposed methods is known as data_____

- a. Polymorphism
- b. Encapsulation.



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- c. Inheritance.
- d. Duplication.

Correct Answer: b

Detailed Solution: Hiding the internal details from the outside world is known as encapsulation.