Course outline

How does an NPTEL online course work?

Week 0 : Assignment 0

Week 1 :

Week 2 :

Week 3 :

- ● Lecture 11 : Java Static Scope Rule
- ● Lecture 12 : Demonstration-V
- ● Lecture 13 : Inheritance
- ● Lecture 14 : Demonstration-VI
- ● Lecture 15 : Information Hiding
- ● **Quiz: Assignment 3**
- ● Java Week 3: Q1
- ● Java Week 3: Q2
- ● Java Week 3: Q3
- ● Java Week 3: Q4
- ● Java Week 3: Q5
- ● Feedback For Week 3

Week 4 :

Week 5 :

Assignment 3

The due date for submitting this assignment has passed.

Due on 2020-10-07, 23:59 IST.

Assignment submitted on 2020-10-06, 21:37 IST

1) **Which of following statement(s) is/are true?**   *1 point*

  a. Instance methods can access instance variables and instance methods directly.
  b. Instance methods cannot access class variables and class methods directly.
  c. Class methods can access class variables and class methods directly.
  d. Class methods cannot access instance variables or instance methods directly—they must use an object reference.

- ☑ a.
- ☐ b.
- ☑ c.
- ☑ d.

Yes, the answer is correct.
Score: 1
Accepted Answers:
a.
c.
d.

2)

1 point

```java
public class Question
{

    public static int x = 7;
    public static void main(String[] args) {

        Question a = new Question ();
        Question b = new Question ();
        a.x = 1;
        b.x = 2;
        System.out.println(a.x+b.x+Question.x);
    }
}
```

What is the output of the above program?

a. 6
b. 10
c. 21
d. runtime error

○ a.
○ b.
○ c.
○ d.

Yes, the answer is correct.
Score: 1
Accepted Answers:
a.

3) **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

○ a.
○ b.
○ c.
◉ d.

Yes, the answer is correct.
Score: 1
Accepted Answers:
d.

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

    a. Polymorphism
    b. Encapsulation.
    c. Inheritance.
    d. Duplication.

○ a.
◉ b.
○ c.
○ d.

Yes, the answer is correct.
Score: 1
Accepted Answers:
b.

Consider the following piece of code in Java.

```
class B {
      protected int  method(int a, int b){
          return 0;
      }
}
```

Which of the following method(s) is/are declaration is/are **not** valid in a class that extends class B?

```
a. public int method(int a, int b) {
        return 0;
    }
b. private int method(int a, int b) {
        return 0;
    }
c. static protected int method(int a, int b) {
        return 0;
    }
d. public short method(int a, int b) {
        return 0;
    }
```

- [ ] a.
- [x] b.
- [ ] c.
- [ ] d.

Partially Correct.
Score: 0.33
Accepted Answers:
b.

c.

d.

Which of the following statement(s) is/are true?

a. A final method cannot be overridden in a subclass.

b. The advantage of private static methods is that they can be reused later if you need to reinitialize the class variable.

c. Class methods cannot use this keyword as there is no instance for this to refer to.

d. A final method can be overridden in a subclass.

☑ a.

☑ b.

☑ c.

☐ d.

7) **Advantage(s) of inheritance in Java programming is/are**

1 point

    a. Code sharing
    b. Code maintainability
    c. Code reusability
    d. All of the above

○ a.

○ b.

○ c.

◉ d.

8) Consider the following class definition:

```
class Student extends String {

}
```

Which of the following statement(s) is/ are TRUE?

1 point

    a. Code will not compile because the body is not defined.
    b. Code will not compile because the class is not declared as public.
    c. Code will not compile because of the super class String.
    d. Code will compile successfully.

○ a.

○ b.

◉ c.

○ d.

9)   *1 point*

```
public class Test1{
    Test1() {
        Test1 obj1 = new Test1();
    }

public static void main(String []args) {
    Test1 obj = new Test1();
    System.out.println("Hello");
    }
}
```

Which of the following statements is/ are true?

    a. Hello
    b. Program will compile successfully.
    c. There will be a compile-time error.
    d. The program will give a runtime error.

☐ a.

☐ b.

☐ c.

☑ d.

10) **Which of the following statement(s) is/are true?**   *1 point*

    a. Hiding internal data from the outside world, and accessing it only through publicly exposed methods is known as data **encapsulation**.
    b. Common behavior can be defined in a **superclass** and inherited into a **subclass** using the **extends** keyword.
    c. The term "class variable" is another name for **non-static field**.
    d. A local variable stores temporary state; it is declared inside a **method**.

☑ a.

☑ b.

☐ c.

☑ d.

Yes, the answer is correct.
Score: 1

Accepted Answers:
a.
b.
d.