OOP: Part 1
Deadline
Mar 1, 2021, 11:59 PM

Lecture

100.0%

Score 400.00/400

- Intro to OOPS
- Correct Statement ● 10.0/10
- Classes and Objects
- Object Creation ● 10.0/10
- Predict the output ● 10.0/10
- Find the error ● 10.0/10
- Possible output ● 10.0/10
- Access Modifiers
- Access Modifiers ● 10.0/10
- Check for error ● 10.0/10
- Predict the output ● 10.0/10
- Getters and Setters
- Predict the output ● 10.0/10

Correct Statement

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Select the correct statement(s).

Options

- [x] OOPS refers to using objects in programming ✔
- [x] A class is a user defined blueprint from which objects are created. ✔
- [ ] Object of same class have different properties.
- [x] Object is an instance of a class. ✔

Correct Answer

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Object Creation

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Which of the following method can be used to create an object of student class?

Options

- Student s1=new Student;
- Student s1;
- Student s1=new Student(); ✓
- Student s1=" ";

Correct Answer

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Predict the output

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What would be the output of the following code?

```
class Student{
   int roll_number;
   String name;
}
class DPS {
   public static void main (String[] args) {
      Student s=new Student();
      s.roll_number=5;
      s.name="Rohit";
      System.out.println(s.roll_number+" "+s.name);
   }
}
```

Options

- 5 Rohit ✔
- Rohit 5
- error

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Find the error

Send Feedback

Which line of the following code would give an error?

```
class Car{
   int year;
   String company_name;
}
class New_Car {
   public static void main (String[] args) {
      Car c=new Car();       //Line 1
      year=2018;             //Line 2
      c.company_name="Honda"; //Line 3
   }
}
```

Options

- Line 1
- Line 2 ✓
- Line 3
- No error

Correct Answer

Solution Description

In line 2 , the year is not a variable in main.So we need to use the object of class Car.

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Possible output

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What can be the possible output of the following code?

```
class Student{
   int roll_no;
   String name;
}
class Test {
      public static void main (String[] args) {
      Student s=new Student();
      System.out.println(s);
   }
}
```

Options

- 547a85bc
- [I@232204a1
- Student@232204a1 ✓
- Student@4578ig32

Correct Answer

Solution Description

The class is of Type student and it would be followed by a hexadecimal code. So the address would be like Student@..... hexadecimal code. (Option 4 is not a hexadecimal code.)

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Access Modifiers

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Which access modifier can be used to access a variable outside the class and within the package?

Options

- [x] Public ✔
- [ ] Private
- [x] Default ✔

Correct Answer

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Check for error

Send Feedback

Would the following code generate any error?

```
class Student{
   private int roll_no;
   String name;
}
class DPS {
      public static void main (String[] args) {
      Student s=new Student();
      s.name="Neha";
      System.out.println(s.name);
   }
}
```

Options

- ○ Yes
- ● No ✓

Correct Answer

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Predict the output

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What would be the output of the following code?

```
class Mobile{
   private int year;
   String company_name;
}
class new_device {
   public static void main (String[] args) {
      Mobile c=new Mobile();
      c.year=2018;
      c.company_name="Apple";
      System.out.println(c.company_name);
   }
}
```

Options

- Apple
- No output
- Error ✔

Correct Answer

Solution Description

The variable year in Mobile class is private. So it cannot be accessed outside the class. Hence the line, c.year=2018, would give an error.

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Predict the output

Send Feedback

What will be the output of the following code? (Considering both the classes are in the same package).

```
class Employee{
   String name;
      private int emp_id;
   public void set_id(int id)
   {
      if(id>0)
      emp_id=id;
      else
      System.out.println("Invalid id");
   }
   public int get_id()
   {
      return emp_id;
   }
}
class office {
   public static void main (String[] args) {
      Employee e=new Employee();
      e.set_id(10);
      System.out.println(e.get_id());
   }
}
```

Options

- 10 ✓
- 0
- error

Correct Answer

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Fill the output

Send Feedback

Fill the output of the following code.(Considering both the classes are in the same package.)

```
class Employee{
   String name;
      private int emp_id;
   public void set_id(int id)
   {
      if(id>0)
      emp_id=id;
      else
      System.out.println("Invalid id");
   }
   public int get_id()
   {
      return emp_id;
   }
   public void set_name(String n)
   {
      name=n;
   }
}
class Office {
   public static void main (String[] args) {
      Employee e=new Employee();
      e.set_id(10);
      e.set_name("Naman");
      System.out.println(e.get_id()+" "+e.name);
   }
}
```

Answer

Type here

10 Naman

Correct Answer

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Fill the output

Send Feedback

What will be the output of the following code?

```
class Test
   {
      int a;
      int b;

   public void set(int a, int b)
   {
      b = a;
      this.b = b;
   }

   void display()
   {
      System.out.println("a=" + a + " b=" + b);
   }
}
class T{
   public static void main(String[] args)
   {
      Test object = new Test();
      object.set(10,20);
      object.display();
   }
}
```

Answer

Type here

a=0 b=10

Correct Answer

Solution Description

When object.set function is called, the local variables are a and b which are passed on to the function as parameters. a=10,b=20. But a has been assigned to b. That means b comes 10. Now this.b=b sets the variable b of class Test equal to 10 and a remains 0.

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Keyword

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Which keyword is a reference variable that refers to the current object?

Options

- object
- this ✔
- class
- private

Correct Answer

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Predict the output

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What will be the output of the following code?

```
class Ninja
{
   Ninja(String name)
   {
      System.out.println("Constructor one " +
name);
   }
   Ninja(String name, int age)
   {
      System.out.println("Constructor two " + name
+ " "+ age);
   }
   Ninja(long id)
   {
      System.out.println("Constructor three " + id);
   }
}

class Student
{
   public static void main(String[] args)
   {
      Ninja geek3 = new Ninja("Dharmesh", 26);
   }
}
```

Options

- Constructor one Dharmesh
- Constructor two Dharmesh 26 ✓
- Constructor three 26

Correct Answer

Solution Description

The constructor with two arguments string and integer is called.

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Predict the output

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What will be the output of the following code?

```
class Test
{
   int a;
   int b;
   Test()
   {
      this(10, 20);
      System.out.print("constructor one ");
   }
   Test(int a, int b)
   {
      this.a = a;
      this.b = b;
      System.out.print("constructor two ");
   }
}
class new_test{
   public static void main(String[] args)
   {
      Test object = new Test();
   }
}
```

Options

- constructor one
- constructor two
- constructor two constructor one ✓
- constructor one constructor two

Correct Answer

Solution Description

When the object of Test class is created,the constructor with no arguments is called. When this(10,20) is encountered , the constructor with two arguments int and int is called because this is the reference of the object. So using this way we can call more than one constructor.

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Final Keyword

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Select the correct statement(s) about final keyword?

Options

- [x] Final variable can be initialized only once and cannot be modified further. ✔
- [ ] We can initialize final variable inside a function.
- [x] We can initialize final variable inside constructor. ✔
- [x] Final keyword is a non-access modifier. ✔

Correct Answer

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Predict the output

Send Feedback

What will be the output of the following code?

```
class Pen{
   final int price = 15;
}

public class MCQs {
   public static void main(String[] args) {
      Pen p = new Pen();
      p.price = 20;
      System.out.println(p.price);
   }
}
```

Options

- 15
- 20
- Error ✔

Correct Answer

Solution Description

Since the variable price is final so we cannot update its value.

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Predict the output

Send Feedback

What will be the output of the following code?

```
class Car{
   static int year;
   String company_name;
}
class new_Car {
   public static void main (String[] args) {
      Car c=new Car();
      Car.year=2018;
      c.company_name="KIA";
      Car d=new Car();
      System.out.print(d.year);
   }
}
```

Options

- 0
- Error
- 2018 ✔

Correct Answer

Solution Description

Year is of static type i.e. only one memory block of year is created , same for every object. So, it would print 2018.

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Find the error

Send Feedback

Which line of the following code would generate an error?

```
class Test{
   static int marks;
   void set_marks(int marks)
   {
      this.marks=marks;            //Line 1
   }
}
class MCQ {
   public static void main (String[] args) {
      Test t=new Test();
      t.set_marks(78);             //Line 2
      System.out.print(Test.marks);  //Line 3
   }
}
```

Options

- Line 1
- Line 2
- Line 3
- No error ✔

Correct Answer

Solution Description

There is no error in this code. In this class, there is just a single variable, which is, static variable. Static variables are property of the class, but you can access it through objects. Hence, line 1 and 2 did not generate any error.

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Predict the output

Send Feedback

What would be the output of the following code?

```
class Test
{
   static int a = 10;
   static int b;
   static void fun(){
      b = a * 4;
   }
}
class MCQ{
  public static void main(String[] args)
   {
     Test t=new Test();
     t.fun();
     System.out.print(Test.a+Test.b);
   }
}
```

Options

- 10
- 20
- 50 ✓
- Error

Correct Answer

Solution Description

When t.fun() is called , a=10 and using this b=40. We print a+b=50.

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Find the error

Send Feedback

Which of the following line(s)would produce an error?

```
class Test
{
   static int a = 10;
   int b = 20;
   static void fun1()
   {
      a = 20;                    //Line 1
      b = 10;                    //Line 2
      fun2();                    //Line 3
      System.out.print(this.b);        //Line 4
   }
   void fun2()
   {
      System.out.println("from m2");
   }
}
class MCQ{
   public static void main(String[] args)
   {
      Test.fun1();
   }
}
```

Options

- [ ] Line 1
- [x] Line 2 ✔
- [x] Line 3 ✔
- [x] Line 4 ✔

Correct Answer

Solution Description

Line 2: static functions cannot use non-static variables. Line 3: Static function cannot call non-static function. Line 4:this or super keyword cannot be used inside a static function.