



## Question - 1

SCORE: 10 points

Application Development

Java

Given the following declarations

```
String s1=new String("Hello")
String s2=new String("there");
String s3=new String();
```

Which of the following are legal operations?

- ☒ s3=s1 + s2;
- ☐ s3=s1 - s2;
- ☐ s3=s1 & s2
- ☐ s3=s1 && s2

## Question - 2

SCORE: 10 points

Application Development

Java

Which of the following statement is true about the code below?

```
class A {
    int a;
    public A(int x){a = x;}
};

class B{
    int b;
    public B(int x):b(x){}
};
```

☐ Class A and Class B constructors represent two ways of initializing the member variables.

- ☐ Class B object would initialize faster.
- ☒ Class B object initialization is invalid Java syntax.
- ☐ Depends on the compiler

Question - 3  
Constructor

SCORE: 10 points

```
public class Puppy {
    String name;
    int age;
    public Puppy() {
    }

    public Puppy(String name, int age) {
        this.name = name;
        this.age = age;
    }
}
```

Which of the following is correct syntax to create a Puppy object? (You need to select all right answers)

- ☒ Puppy p = new Puppy();
- ☐ Puppy p = new Puppy("Doggy");
- ☐ Puppy p = new Puppy(Doggy, 12);
- ☐ Puppy p = new Puppy("Doggy", "12");

#### Question - 4

SCORE: 10 points

```
public class Puppy {
    int puppyAge = 0;

    public Puppy(String name, int age) {
        System.out.println("Name chosen is :" +
name );
    }

    public void setAge(int age) {
        puppyAge = age;
    }

    public int getAge() {
        return puppyAge;
    }

    public static void main(String []args) {

        Puppy myPuppy = new Puppy("Tommy", 2);
        int age1 = myPuppy.getAge();
        int age2 = myPuppy.puppyAge;
        myPuppy.setAge(5);
        int age3 = myPuppy.getAge();
        // output all the ages
        System.out.println(age1 + ", " + age2 + ",
" + age3);
    }
}
```

Which is the correct output?

- ☐ 2, 2, 5
- ☐ 0, 2, 5
- ☐ 2, 0, 5

## Question - 5

SCORE: 10 points

```
class Bank {
    private String name = "BOA";
    public String getName() {
        return this .name;
    }
    public void setName(String name) {
        this.name = name;
    }
}

class Employee {
    private String name;
    private Bank bank;
    public void setName(String name) {
        this.name = name;
    }
    public String getName() {
        return this .name;
    }
    public void setBank(Bank bank){
        this.bank = bank;
    }
    public Bank getBank() {
        return this .bank;
    }
    public static void main(String[] args){
        Bank b1 = new Bank();
        String n1 = b1.getName();
        Bank b2 = new Bank();
        b2.setName("Chase");
        String n2 = b2.getName();
        Employee e = new Employee();
        e.setName("Mike");
        String n3 = e.getBank().getName();
    }
}
```

What is the value for n1, n2, n3?

- ☐ "BOA" "Chase" "BOA"
- ☐ Throw NullPointerException at n1
- ☐ Throw NullPointerException at n2
- ☒ Throw NullPointerException at n3

Question - 6  
Git Command

SCORE: 10 points

What is the correct order to use following git commands when you want to upload your new assignment to Bitbucket?

- A. git commit -m "Add new assignment"  
B. git add --all  
C. git push --all

- ☐ ABC  
☐ ACB  
☒ BAC  
☐ BCA  
☐ CAB  
☐ CBA

## Question - 7

SCORE: 10 points

// Predict the output of following Java program?

```
class Test {  
    int i;  
}  
class Main {  
    public static void main(String args[]) {  
        Test t;  
        System.out.println(t.i);  
    }  
}
```

- ☐ 0  
☐ runtime error  
☒ compiler error  
☐ garbage value

## Question - 8

SCORE: 10 points

```
class Student {  
        ? String name = "Lily";  
}  
  
public class Main {  
    public static void main(String[] args) {  
        Student s = new Student();  
        System.out.println(s.name);  
    }  
}
```

If we want to access the name using s.name, it can be declared as  
(choose all possible answers):

- ☐ private  
☒ public

☒ protected☐ friend

## Question - 9

SCORE: 10 points

Examine the following declarations:

```
int score;  
String name;
```

Which of the following is true?

- ☒ score is a primitive variable, name is a reference variable.
- ☐ score is a reference variable, name is a primitive variable.
- ☐ both are primitive variables
- ☐ both are reference variables

## Question - 10

SCORE: 10 points

What is will be output by execute following section of code:

```
String str1 = new String("Happy ");  
String str2 = new String("Sad ");  
  
str1 = str2;  
if ( str1 == str2 )  
    system.out.println("Same Value!");  
else  
    system.out.println("Different value!");
```

- ☒ "Same Value!"
- ☐ "Different value!"
- ☐ "Same Value!" "Different value!"
- ☐ None