

2024 AP DAILY: PRACTICE SESSIONS

AP Computer Science A

Session 2 – MCQ

1. Consider the following code segment.

```
String str = "abcdef";  
for (int rep = 0; rep < str.length() - 1; rep++)  
{  
    System.out.print(str.substring(rep, rep + 2));  
}
```

What is printed as a result of executing this code segment?

- a. abcdef
 - b. aabbccddeeff
 - c. abbccddeef
 - d. abcbcddcdedef
 - e. Nothing is printed because an `IndexOutOfBoundsException` is thrown.
2. Consider the following class declarations.

```
public class Shoe  
{  
    private String shoeBrand;  
    private String shoeModel;  
  
    public Shoe(String brand, String model)  
    {  
        shoeBrand = brand;  
        shoeModel = model;  
    }  
  
    // No other constructors  
}
```

```

public class Boot extends Shoe
{
    private double heelHeight;

    public Boot(String brand, String model, double height)
    {
        /* missing implementation */
    }
}

```

Which of the following should be used to replace `/* missing implementation */` so that all instance variables are initialized with parameters?

a.

```

shoeBrand = brand;
shoeModel = model;

```

```

heelHeight = height;

```

b.

```

super();
heelHeight = height;

```

c.

```

super(brand, model);

```

d.

```

heelHeight = height;
super(brand, model);

```

e.

```

super(brand, model);
heelHeight = height;

```

3. Consider the following method.

```

// precondition: x >= 0
public void mystery(int x)
{
    if ((x / 10) != 0)
    {
        mystery(x / 10);
    }

    System.out.print(x % 10);
}

```

Which of the following is printed as a result of the call `mystery(123456)` ?

a. 16

b. 56

c. 123456

d. 654321

e. Many digits are printed due to infinite recursion.