

Sessional Test II – MAY, 2023

Roll No:

[Total No. of Pages: 3]

Programme: B.E. (CSE)

Time: 90 minutes

Course Title: Core Java

Course Code: CS109

Max. Marks: 40

General Instructions:

- Follow the instructions given in each section.

Section – A

(Q 1 to 10: Each question carries 1 mark)

Question 1. Which class in Java is used to represent immutable strings?

- ☒ String
- ☐ StringBuffer
- ☐ StringBuilder
- ☐ None of the above

Question 2. Which of these data type value is returned by equals() method of String class?

- ☐ char
- ☐ int
- ☒ boolean
- ☐ All of the mentioned

Question 3. Following program will return

```
public class Main {  
    public static void main (String args []){  
        if (" STRING ".toUpperCase() == "STRING")  
            System.out.println ("Equal");  
        else  
            System.out.println ("Not Equal");  
    }  
}
```

- ☐ Equal
- ☐ Not Equal
- ☒ Compile error
- ☐ Runtime error

Question 4. A Java Class inherits Constants and Methods of an Interface using __ keyword.

- ☐ INTERFACE
- ☐ EXTENDS
- ☒ IMPLEMENTS
- ☐ All the above

Question 5. Which is the default Java package that will be auto included (imported) in the class path while Compiling and Running a Java program?

- ☐ java.io
- ☐ java.util

- ☐ java.net
- ☒ java.lang

Question 6. What is a package in Java?

- ☐ A Package is a collection of files of type Java Class, Interfaces, or Abstract Class
- ☐ A Package is simply a Directory or Folder with Java Classes
- ☐ A Package usually contains Java Classes written for a specific purpose or problem
- ☒ All of the above

Question 7. How can you create a custom exception in Java?

- ☐ By extending the Exception class
- ☐ By implementing the Throwable interface
- ☒ By creating a new class that extends the Exception class or one of its subclasses
- ☐ All of the above

Question 8. Which method is used to set the priority of a thread in Java?

- ☒ setPriority()
- ☐ getPriority()
- ☐ setThreadPriority()
- ☐ getThreadPriority()

Question 9. Which of the following is NOT a built-in exception class in Java?

- ☐ RuntimeException
- ☐ IOException
- ☐ ArithmeticException
- ☒ NullPointerException

Question 10. Which of the following statements is true about exceptions in Java?

- ☐ All exceptions in Java are checked exceptions.
- ☐ All exceptions in Java are unchecked exceptions.
- ☒ Some exceptions in Java are checked exceptions, while others are unchecked exceptions.
- ☐ Java does not have exceptions.

Section – B

(Q 11 to 15: Each question carries 1 mark)

Question 11. What will be the output of the following code?

```
public class StringExample {
    public static void main(String[] args) {
        try {
            String str = null;
            String newStr = str.substring(0, 5);
            System.out.println(newStr);
        } catch (NullPointerException ex) {
            System.out.println("NullPointerException caught");
        } } }
```

- ☐ null
- ☒ NullPointerException caught
- ☐ A runtime exception is thrown and the program crashes
- ☐ A compile-time error occurs

Question 2. What is the output of the following code?

```
try {  
    int a = 5 / 0;  
} catch (ArithmeticException e) {  
    System.out.println("ArithmeticException caught");  
}
```

- ☒ ArithmeticException caught
- ☐ Runtime error
- ☐ Compilation error
- ☐ No output

Question 3. What is the difference between a process and a thread?

- ☐ A process can run on multiple computers, while a thread can only run on a single computer
- ☒ A process is a unit of execution that runs independently of other processes, while a thread is a unit of execution that shares memory and resources with other threads in the same process
- ☐ A process is a unit of execution that shares memory and resources with other processes on the same computer, while a thread is a unit of execution that runs independently of other threads in the same process
- ☐ There is no difference between a process and a thread

Question 4. What is the output of the following code?

```
String str = "Hello";  
str.replace("H", "J");  
System.out.println(str);
```

- ☒ Hello
- ☐ Jello
- ☐ Runtime Error
- ☐ Compilation error

Question 5. Which of the following is true about interfaces in java.

- 1) An interface can contain following type of members.
....public, static, final fields (i.e., constants)
....default and static methods with bodies
- 2) An instance of interface can be created.
- 3) A class can implement multiple interfaces.
- 4) Many classes can implement the same interface.

- ☒ 1 3 and 4
- ☐ 2 and 3
- ☐ 1
- ☐ 2