DO NOT WRITE ANYTHING ON QUESTION PAPER EXCEPT ROLL NO.

CHITKARA UNIVERSITY

2022-2023

Sessional Test II – MAY, 2023

Roll No: …… [Total No. of Pages: 4]

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 keyword is used to throw an exception in Java?

- [x] throw
- [ ] catch
- [ ] try
- [ ] finally

Question 2. Which of the following is the correct way of implementing an interface salary by class manager?

- [ ] class manager imports salary {}
- [x] class manager implements salary {}
- [ ] class manager extends salary {}
- [ ] none of the mentioned

Question 3. What is the output of the following Java program? Note- Code is saved with f ile name: ChildClass.java

```
abstract class MyAbstractClass {
  abstract void myMethod();
   void anotherMethod() {
    System.out.println("Another Method");   }
}
 public class ChildClass extends MyAbstractClass {
 void myMethod() {
   System.out.println("Abstract Method");
 }
  public static void main(String[] args) {
   ChildClass obj = new ChildClass();
   obj.myMethod();
   obj.anotherMethod();
 }}
```

- [ ] Compilation error
- [ ] Runtime error
- [x] Abstract Method

Another Method

- [ ] Abstract Method

Question 4. Which method is used to remove a character from a string in Java?

- [ ] remove()
- [ ] delete()
- [x] replace()
- [ ] subtract()

Question 5. Predict the output of following Java program

```
class Main {
public static void main(String args[]) {
try {
throw 10;
}
catch(int e) {
System.out.println("Got the Exception " + e);
} } }
```

- [ ] Got the Exception 10
- [ ] Got the Exception 0
- [x] Compiler Error
- [ ] Runtime error.

Question 6. What is the purpose of try-catch block in Java?

- [x] It is used to handle the exceptions thrown by the program.
- [ ] It is used to throw an exception.
- [ ] It is used to catch all the errors that occur during the program execution.
- [ ] None of the above.

Question 7. An interface in Java can have:

- [ ] Both concrete and abstract methods
- [ ] Only concrete methods
- [x] Only abstract methods
- [ ] None of the above

Question 8. Which method is used to convert a string to lowercase in Java?

- [x] toLowerCase()
- [ ] toLower()
- [ ] toCase()
- [ ] convertToLower()

Question 9. `Which of the following classes fail to compile?`

```
class X { }
abstract class Y { }
abstract class Z { abstract void method(); }
```

- [ ] Y
- [ ] Y, Z
- [ ] X, Y
- [ ] X, Y, Z
- [x] All classes compile

Question 10. Which method is used to concatenate two strings in Java?

- [ ] append()
- [x] concat()
- [ ] join()

☐ add()

Section – B

(Q 11 to 15: Each question carries 2 mark)

Question 1. What is a race condition in multithreading?

☑ A situation in which two or more threads access shared data and try to modify it at the same time, resulting in unpredictable behavior

☐ A situation in which two or more threads try to acquire the same resource, resulting in a deadlock

☐ A situation in which two or more threads try to execute the same code at the same tim e, resulting in a race to the finish

☐ A situation in which a thread blocks another thread from executing, resulting in poor p erformance

Question 2. Which of the following is the result of the below program?

```
class SimpleTest {
    public static void stringReplace(String str) {
        str = str.replace('c', 'c');
    }
    public static void bufferReplace(StringBuffer str) {
        str.trimToSize();
    }
    public static void main(String args[]) {
        String myString = new String("cplus");
        StringBuffer myBuffer = new StringBuffer(" plus");
        stringReplace(myString);
        bufferReplace(myBuffer);
        System.out.println(myString + myBuffer);
    }
}
```

☐ cplusplus

☐ plus plus

☑ cplus plus

☐ c plus plus

Question 3. What will be the output of the following Java program?

```
class Exception{
    public static void main(String args[])
    {
        try
        {
            int a, b;
            b = 0;
            a = 5 / b;
            System.out.print("A");
        }
        catch(ArithmeticException e)
        {
            System.out.print("B");
        }
        finally
        {
                    System.out.print("C");
        }     } }
```

- [ ] A
- [ ] B
- [ ] AC
- [x] BC

Question 4. Below class ABC doesn't have even a single abstract method, but it has been declared as abstract. Is it correct?

```
abstract class ABC
{
    void firstMethod()
    {
        System.out.println("First Method");
    }
    void secondMethod()
    {
        System.out.println("Second Method");
    } }
```

- [x] Yes
- [ ] No
- [ ] NULL
- [ ] Compilation Error

Question 5. Predict the output of the following program.

```
class Test
{
    public void demo(String str)
    {
        String[] arr = str.split(";");
        for (String s : arr)
        {
            System.out.println(s);
        }
    }

    public static void main(String[] args)
    {
        char array[] = {'a', 'b', ' ', 'c', 'd', ';', 'e', 'f', ' ',
                        'g', 'h', ';', 'i', 'j', ' ', 'k', 'l'};
        String str = new String(array);
        Test obj = new Test();
        obj.demo(str);
    } }
```

- [x] ab cd ef gh ij kl
- [ ] ab
- [ ] ab cd
- [ ] None