Question - 1

Git

SCORE: **25 points**

After creating a new file called index.class. Which of the following statement will stage this one file so we can commit it?

- git push index.class
- git add new
- git add index.class
- git commit index.class

Question - 2

List

SCORE: **25 points**

```
public class Q2 {
    public static void main(String[] args) {
        ArrayList<String> list1 = new ArrayList<>
();
        list1.add("foo");
        ArrayList<String> list2 = list1;
        ArrayList<String> list3 = new ArrayList<>
(list2);
        list1.add("bar");
        list1.clear();
        list1.add(0,"lol"); /* Line 7 */
        list3.add("baz");
        list2.add("haha");
        List<String> list4 = list3.subList(0, 2);
/* Line 10 */
        System.out.println("List1: "+ list1);
        System.out.println("List2: "+ list2);
        System.out.println("List3: "+ list3);
        System.out.println("List4: "+ list4);
    }
}
```

- List1: [lol, haha] List2: [lol, haha] List3: [foo, baz] List4: [foo, baz]
- List1: [lol] List2: [haha] List3: [lol, baz] List4: [lol, baz]
- Runtime error on Line 7: Attempting to add an element in an empty list
- Runtime error on Line 10: IndexOutOfBoundsException: toIndex = 2

Help

Question - 3
Switch

SCORE: **25 points**

The switch structure in Java consists of series of case keyword. Each of the case value must(can) be _____.

- variable
- constant
- both

Question - 4
Polymorphism

SCORE: **25 points**

. _____ used for runtime Polymorphism.

- Abstract class is
- Interface is
- both

Question - 5
Try-Catch

SCORE: **25 points**

```
class Output4 {
    public static void main(String[] args) {
        try {
            System.out.printf("1");
            int data = 5 / 0;
        } catch (ArithmeticException e) {
            Throwable obj = new
Throwable("Sample");
            try {
                throw obj;
            } catch (Throwable e1) {
                System.out.printf("8");
            }
        } finally {
            System.out.printf("3");
        }
        System.out.printf("4");
    }
}
```

- Compile Error
- 183

- Runtime Error
- 1834

Question - 6

SCORE: **25 points**

Modiferation

Given the following code, which of the options, when applied individually, will make it compile successfully?

```
   Line1> interface Employee {}
    Line2> interface Printable extends
Employee {
    Line3>   String print();
    Line4> }
    Line5> class Programmer {
    Line6>   String print() {
return("Programmer - Mala Gupta"); }
    Line7> }
    Line8> class Author extends Programmer
implements Printable, Employee {
    Line9>   String print() {
return("Author - Mala Gupta"); }
    Line10>}
```

- Modify the code on line 2 to interface Printable{
- Modify the code on line 3 to public String print();
- Define the accessibility of the print methods to public on lines 9.
- Modify the code on line 8 so that it implements only the interface Printable.

Question - 7

SCORE: **50 points**

Coding

Write a Java program to find the first non-repeated character in a String which is not null. Your code must return the first non-repeated letter.
If such letter does not exist, throw Runtime Exception "Didn't find any non-repeated Character" and print the exception message on the console

```
Sample Example:
swiss -> w
aabccd -> b
```