Quiz 1

1. what is the output of the following code?

```
public class PunchCard {
    public static void main(String[] args) {
        String original = "Java is great";
        String modified = "";

        for (int i = original.length() - 1; i >= 0; i--) {
            if (original.charAt(i) != ' ') {
                modified = original.charAt(i) + modified;
            } else {
                break;
            }
        }
        System.out.println(modified);
    }
}

a) taerg si avaJ
b) taerg
c) JAVA IS GREAT
d) great
```

e) java

answer: d - great

2. What is wrong with the following code?

```
public class PunchCard {
    public static void main(String[] args) {
        String input = "HeLLo WoRld 123";
        StringBuilder result = new StringBuilder();

        for (int i = 0; i <= input.length(); i++) {
            char currentChar = input.charAt(i);

            if (Character.isUpperCase(currentChar)) {
                result.append(Character.toLowerCase(currentChar));
            } else if (Character.isLowerCase(currentChar)) {
                     result.append(Character.toUpperCase(currentChar));
            } else {
                     result.append(currentChar);
            }
            System.out.println("Converted string: " + result.toString());
        }
}</pre>
```

- a) The code will throw a compilation error due to an incorrect loop condition.
- b) The code will run indefinitely due to an incorrect loop condition.
- c) The code will not perform any case conversions due to incorrect if conditions.

- d) The code will throw an ${\tt IndexOutOfBoundsException}$ due to an incorrect loop condition.
- e) There is nothing wrong with the code.

 $\textit{Answer} \colon \operatorname{d}\text{--}\operatorname{The\ code\ will\ throw\ an\ IndexOutOfBoundsException\ due\ to\ an\ incorrect\ loop\ condition.})$