Question 7:

Code:

```java
import java.util.*;

public class Alphabetical {
    public static void main(String[] args) {
        char chr;
        System.out.println("Enter a String :");
        String str = new Scanner(System.in).next();
        int l = str.length();
        System.out.println("The words in Alphabetical Order :");
        for (int i = 65; i <= 90; i++) {
            for (int j = 0; j < l; j++) {
                chr = str.charAt(j);
                if (chr == (char) (i) || chr == (char) (i + 32))
                    System.out.print(chr);
            }
        }
    }
}
```

Output:

```
PS D:\OOPS-PCC-CS593\Day-20-(02.12.2020)> javac Alphabetical.java
PS D:\OOPS-PCC-CS593\Day-20-(02.12.2020)> java Alphabetical
Enter a String :
STRING
The words in Alphabetical Order :
GINRST
```

Question 8:

Code:

```java
import java.io.*;

public class GetSubstring {
    public static void extract(String str, int n, int m) {
        String newstr = "";
        for (int i = n - 1; i < n + m - 1; i++) {
            newstr += str.charAt(i);
        }
        System.out.println("The extracted String- " + newstr);
    }

    public static void main(String[] args) throws IOException {
        InputStreamReader read = new InputStreamReader(System.in);
        BufferedReader in = new BufferedReader(read);
        String str;
        System.out.println("Enter a String:");
        str = in.readLine();
        System.out.println("Enter the starting point of extraction");
        int n = Integer.parseInt(in.readLine());
        System.out.println("Enter the number of characters to be
extracted");
        int m = Integer.parseInt(in.readLine());
        extract(str, n, m);
    }
}
```

Output:

```
PS D:\OOPS-PCC-CS593\Day-20-(02.12.2020)> javac GetSubstring.java
PS D:\OOPS-PCC-CS593\Day-20-(02.12.2020)> java GetSubstring
Enter a String:
Assignment
Enter the starting point of extraction
2
Enter the number of characters to be extracted
4
The extracted String- ssig
```

Question 9:

Code:

```java
import java.io.*;
public class AlphaRemove {
    String deleteMe(String str, int m) {
        String s1, s2;
        int len = str.length();
        if (m > len)
            return ("invalid");
        else {
            s1 = str.substring(0, m - 1);
            s2 = str.substring(m);
            return (s1 + s2);
        }
    }
    public static void main(String args[]) {
        AlphaRemove ob = new AlphaRemove();
        String str, s, r;
        int m;
        try {
            BufferedReader obj = new BufferedReader(new
InputStreamReader(System.in));
            System.out.print("Enter String : ");
            str = obj.readLine();
            System.out.print("Enter character position which you want to
delete : ");
            s = obj.readLine();
            m = Integer.parseInt(s);
            r = ob.deleteMe(str, m);
            if (r.equals("invalid"))
                System.out.println("Invalid");
            else
                System.out.println("Your Updated String is  " + r);
        } catch (Exception e) {}}
}
```

Output:

```
PS D:\OOPS-PCC-CS593\Day-20-(02.12.2020)> javac AlphaRemove.java
PS D:\OOPS-PCC-CS593\Day-20-(02.12.2020)> java AlphaRemove
Enter String : Swapnanil Dutta
Enter character position which you want to delete : 4
Your Updated String is  Swananil Dutta
```

Question 10:

Code:

```java
import java.util.Scanner;

public class Quiz {
    public static void main(String[] args) {
        int i = 0;
        System.out.println("Who is the inventor of JAVA?");
        for (i = 1; i <= 3; i++) {
            String a = new Scanner(System.in).nextLine();
            if (a.equalsIgnoreCase("James Gosling")) {
                System.out.println("Good");
                break;
            } else {
                System.out.println("Try Again");
            }
        }
        if (i == 4) {
            System.out.println("James Gosling is the inventor of JAVA");
        }
    }
}
```

Output:

```
PS D:\OOPS-PCC-CS593\Day-20-(02.12.2020)> javac Quiz.java
PS D:\OOPS-PCC-CS593\Day-20-(02.12.2020)> java Quiz
Who is the inventor of JAVA?
Linus Torvalds
Try Again
Bill Gates
Try Again
James Gosling
Good
```

Question 11:

Code:

```java
public class Immute {
    public static void main(String[] args) {
        String s = "Java";
        s.concat(" Class");
        System.out.println(s);
        StringBuffer sb = new StringBuffer("study");
        System.out.println(sb);
        sb.append("tonight");
        System.out.println(sb);
    }
}
```

Output:

```
PS D:\OOPS-PCC-CS593\Day-20-(02.12.2020)> javac Immute.java
PS D:\OOPS-PCC-CS593\Day-20-(02.12.2020)> java Immute
Java
study
studytonight
```

Question 12:

Code:

```java
import java.io.*;
public class StringBufferTest {
    public static void main(String[] args) throws IOException {
        InputStreamReader read = new InputStreamReader(System.in);
        BufferedReader in = new BufferedReader(read);
        StringBuffer s = new StringBuffer("Object Programming Languages");
        System.out.println(s + " Length-" + s.length() + " Capacity-" +
s.capacity());
        s.insert(7, "Oriented ");
        System.out.println(s);
        s.insert(5, "-");
        System.out.println(s);
        s.append(" are very popular");
        System.out.println(s);
        s.deleteCharAt(5);
        s.insert(5, " ");
        System.out.println(s);
        s.delete(1, 7);
        System.out.println(s);
        s.delete(2, 10);
        System.out.println(s);
        s.delete(3, 13);
        System.out.println(s);
        String str = s.toString();
        System.out.println(str);
    }
}
```

Output:

```
PS D:\OOPS-PCC-CS593\Day-20-(02.12.2020)> javac StringBufferTest.java
PS D:\OOPS-PCC-CS593\Day-20-(02.12.2020)> java StringBufferTest
Object Programming Languages Length-28 Capacity-44
Object Oriented Programming Languages
Objec-t Oriented Programming Languages
Objec-t Oriented Programming Languages are very popular
Objec t Oriented Programming Languages are very popular
O Oriented Programming Languages are very popular
O  Programming Languages are very popular
O  g Languages are very popular
O  g Languages are very popular
```

Question 13:

Code:

```java
import java.util.Scanner;

public class Palindrome {
    public static void main(String[] args) {
        char chr;
        String str1, str2;
        System.out.println("Enter the Word");
        str1 = new Scanner(System.in).next();
        str2 = "";
        int l = str1.length();
        for (int i = l - 1; i >= 0; i--) {
            chr = str1.charAt(i);
            str2 = str2 + chr;
        }
        if (str1.equalsIgnoreCase(str2))
            System.out.print("Palindrome");
        else
            System.out.print("Not Palindrome");
    }
}
```

Output:

```
PS D:\OOPS-PCC-CS593\Day-20-(02.12.2020)> javac Palindrome.java
PS D:\OOPS-PCC-CS593\Day-20-(02.12.2020)> java Palindrome
Enter the Word
Malayalam
Palindrome
PS D:\OOPS-PCC-CS593\Day-20-(02.12.2020)> java Palindrome
Enter the Word
Bengali
Not Palindrome
```