QUESTION 1:

```java
import java.util.Scanner;

class Justtickets {

    private String move_name;

    private String thetre_name;

    private int cost;

    void movies() {

        System.out.println("the movies available are");

        System.out.println(" 1.Snv -------- Rs.180 \n 2.Dia - Rs.150 \n 3.Extraction ---- Rs.190 \n 4.Ala Vaikuntapuramlo ----- Rs.200 ");

    }

}

class just extends Justtickets {
private int no_f_tickets;
    void th() {
        System.out.println("**the theaters available are** \n 1.Kanya  th \n 2.Melody th");
        int k;
```

```java
int an;

Scanner sc = new Scanner(System.in);

int n = sc.nextInt();

if (n == 1) {

    System.out.println("**kanya theater**");

    System.out.println("**select a movie**");

    System.out.println("movie available are \n 1.Snv \n 2.Dia");

    Scanner a = new Scanner(System.in);

    int o = a.nextInt();

    if (o == 1) {

        System.out.println("Snv movie @ kanya theater");

        System.out.println("enter the number of tickets to be booked");

        Scanner j = new Scanner(System.in);

        int r = j.nextInt();

        int left= no_f_tickets-r;

        int amount=180*r;

        System.out.println("to continue to book for this movie prees 1");

        Scanner d = new Scanner(System.in);

        int h = d.nextInt();

        System.out.println("\n\n\n");

        if (h == 1) {

            System.out.println("*****************");

            System.out.println("theater ------------------ kanya  theater");

            System.out.println("movie -------------------- Snv");

            System.out.println("cost --------------------- Rs."+amount);
```

```java
        System.out.println("*****************");

    }


}
if (o == 2) {

    System.out.println("Dia @kanya  theater");

     System.out.println("enter the number of tickets to be booked");

    Scanner j = new Scanner(System.in);

    int r = j.nextInt();

    int left= no_f_tickets-r;

    int amount=150*r;

    System.out.println("to continue to book for this movie prees 1");

    Scanner d = new Scanner(System.in);

    int h = d.nextInt();

    System.out.println("\n\n\n");

    if (h == 1) {

        System.out.println("*****************");

        System.out.println("theater ------------------ kanta  theater");

        System.out.println("movie -------------------- Dia");

        System.out.println("cost --------------------- Rs"+amount);

        System.out.println("*****************");

    }


}
```

```java
        }
    if (n == 2) {

        System.out.println("**Melody theater**");

        System.out.println("**select a movie**");

        System.out.println("movie available are \n 3.Extraction movie \n 4.Ala vaikuntapuramalo
movie");

        Scanner b = new Scanner(System.in);

        int p = b.nextInt();

        Scanner a = new Scanner(System.in);

        int o = a.nextInt();

        if (o == 1) {

            System.out.println("Extraction movie @ Melody theater");

             System.out.println("enter the number of tickets to be booked");

            Scanner j = new Scanner(System.in);

            int r = j.nextInt();

            int left= no_f_tickets-r;

            int amount=190*r;

            System.out.println("to continue to book for this movie prees 1");

            Scanner d = new Scanner(System.in);

            int h = d.nextInt();

            System.out.println("\n\n\n");

            if (h == 1) {

                System.out.println("*****************");

                System.out.println("theater ----------------- Melody theater");

                System.out.println("movie ------------------- Extraction movie");

                System.out.println("cost -------------------- Rs."+amount);
```

```java
        System.out.println("*****************");

    }



}
    if (o == 2) {

        System.out.println("Ala vaikuntapuramalo @Melody theater");

         System.out.println("enter the number of tickets to be booked");

        Scanner j = new Scanner(System.in);

        int r = j.nextInt();

        int left= no_f_tickets-r;

        int amount=200*r;

        System.out.println("to continue to book for this movie prees 1");

        Scanner d = new Scanner(System.in);

        int h = d.nextInt();

        System.out.println("\n\n\n");

        if (h == 1) {

            System.out.println("*****************");

            System.out.println("theater ----------------- Melody theater");

            System.out.println("movie -------------------- Ala vaikuntapuramalo movie");

            System.out.println("cost --------------------- Rs."+amount);

            System.out.println("*****************");

        }


    }
}
```

```java
    }
}

public class Main {

    public static void main(String[] args) {
        Justtickets ob = new Justtickets();


        Justtickets[] moviename = new Justtickets[2];
        moviename[0] = ob;
        just a = new just();
        moviename[1] = a;


        System.out.println("Program by Manasa\nJava1\nSAP ID:51834754");
        System.out.println("1.list of movies and their prices\n2.acces and book tickets through theaters");


        Scanner d = new Scanner(System.in);
        int h = d.nextInt();
        switch (h) {
          case 1: {
            ob.movies();
            break;
          }
          case 2: {
```

```java
            a.th();

        }

    }


}
```

```
Program by Manasa
Java1
SAP ID:51834754
1.list of movies and their prices
2.acces and book tickets through theaters
1
the movies available are
 1.Snv -------- Rs.180
 2.Dia - Rs.150
 3.Extraction ---- Rs.190
 4.Ala Vaikuntapuramlo ----- Rs.200

Process finished.
```

QUESTION 4:

```java
import java.util.*;


public class Main {


    static int factorial(int a)

    {

        int res = 1;

        for (int m = 2; m <= a; m++)
```

```java
        res *= m;

        return res;

    }


    static double sum(int a)

    {

        double sum = 0;

        for (int m = 1; m <= a; m++)

            sum += 1.0/factorial(m);

        return sum;

    }


    public static void main (String[] args)

    {

        System.out.println("Program by Manasa\nJava1\nSAP ID:51834754");

        int a = 3;

        System.out.println(sum(a));

    }

}
```

```java
import java.util.*;

public class Main {

    static int factorial(int a)
    {
        int res = 1;
        for (int m = 2; m <= a; m++)
        res *= m;
        return res;
    }

    static double sum(int a)
    {
        double sum = 0;
        for (int m = 1; m <= a; m++)
            sum += 1.0/factorial(m);
        return sum;
    }

    public static void main (String[] args)
    {
        System.out.println("Program by Manasa\nJava
        int a = 3;
        System.out.println(sum(a));
    }
}
```

```
 ×     Terminal                              ⧉

Program by Manasa
Java1
SAP ID:51834754
1.6666666666666667

Process finished.
```

QUESTION 5:

import java.util.*;

public class Main

{

```java
static int summation(int a)
{
    System.out.println("Program by Manasa\nJava1\nSAP ID:51834754");
    int sum = 0, y = 1;
    for (int x = 1; x <= a; x++)
    {
        sum = sum + y;
        y = (y * 10) + 1;
    }


    return sum;
}


public static void main(String args[])
{
    int a = 7;
    System.out.println(summation(a));
}
}
```

```java
import java.util.*;

public class Main
{

    static int summation(int a)
    {
        System.out.println("Program by Manasa\nJava
        int sum = 0, y = 1;
        for (int x = 1; x <= a; x++)
        {
            sum = sum + y;
            y = (y * 10) + 1;
        }

        return sum;
    }

    public static void main(String args[])
    {
        int a = 7;
        System.out.println(summation(a));
    }
}
```

Terminal

```
Program by Manasa
Java1
SAP ID:51834754
1234567

Process finished.
```

QUIZ MARKS:13