Slip 7

10 Marks:

```
java
Copy code
import java.util.Scanner;

public class Employee {
    int id;
    String name;
    String deptname;
    float salary;
    static int numberOfObjects = 0;

    Employee() {
        id = 0;
        name = "";
        deptname = "";
        salary = 0;
    }

    Employee(int id, String name, String deptname, float salary) {
        this.id = id;
        this.name = name;
        this.deptname = deptname;
        this.salary = salary;
        numberOfObjects++;
    }

    public void display() {
        System.out.println("Employee Id: " + id);
        System.out.println("Employee Name: " + name);
        System.out.println("Employee Department: " + deptname);
        System.out.println("Employee Salary: " + salary);
    }

    public static void main(String[] args) {
        int n;
        Scanner sc = new Scanner(System.in);
        System.out.print("Enter the number of employees: ");
        n = sc.nextInt();
        Employee[] employees = new Employee[n];

        for (int i = 0; i < n; i++) {
            System.out.println("\nEnter details of employee " + (i + 1));
            System.out.print("Enter ID: ");
            int id = sc.nextInt();
            System.out.print("Enter Name: ");
            sc.nextLine();  // Consume newline
            String name = sc.nextLine();
            System.out.print("Enter Department Name: ");
            String deptname = sc.nextLine();
            System.out.print("Enter Salary: ");
            float salary = sc.nextFloat();
```

```
            employees[i] = new Employee(id, name, deptname, salary);
            System.out.println("Total objects created so far: " +
numberOfObjects);
        }

        for (Employee emp : employees) {
            emp.display();
        }
    }
}
```

20 Marks:

```
java
Copy code
import java.io.*;
import java.util.*;

class CricketPlayer {
    String name;
    int noOfInnings, noOfTimesNotOut, totalRuns;
    float batAvg;

    public CricketPlayer(String name, int noOfInnings, int noOfTimesNotOut,
int totalRuns) {
        this.name = name;
        this.noOfInnings = noOfInnings;
        this.noOfTimesNotOut = noOfTimesNotOut;
        this.totalRuns = totalRuns;
        this.batAvg = (float) totalRuns / noOfInnings;
    }

    public static void sortPlayers(CricketPlayer[] players) {
        Arrays.sort(players, Comparator.comparingDouble(p -> -p.batAvg)); //
Sort by batAvg in descending order
        System.out.println("Players sorted by batting average:");
        for (CricketPlayer player : players) {
            player.display();
        }
    }

    public void display() {
        System.out.printf("Name: %s, Innings: %d, Not Out: %d, Total Runs:
%d, Batting Average: %.2f\n",
                          name, noOfInnings, noOfTimesNotOut, totalRuns,
batAvg);
    }

    public static void main(String[] args) throws IOException {
        BufferedReader br = new BufferedReader(new
InputStreamReader(System.in));
        System.out.print("Enter the number of players: ");
        int n = Integer.parseInt(br.readLine());
        CricketPlayer[] players = new CricketPlayer[n];

        for (int i = 0; i < n; i++) {
```

```
            System.out.println("Enter details for player " + (i + 1));
            System.out.print("Enter name: ");
            String name = br.readLine();
            System.out.print("Enter number of innings: ");
            int innings = Integer.parseInt(br.readLine());
            System.out.print("Enter number of times not out: ");
            int notOut = Integer.parseInt(br.readLine());
            System.out.print("Enter total runs: ");
            int totalRuns = Integer.parseInt(br.readLine());

            players[i] = new CricketPlayer(name, innings, notOut, totalRuns);
        }

        sortPlayers(players);
    }
}
```