**Section 01 : Main Questions**

**Q1.**

import java.util.Scanner;

public class Main {

    public static void main(String[] args) {

        Scanner input = new Scanner(System.in);

        System.out.print("Enter your first nb:");

        double nb1 = input.nextDouble();

        System.out.print("Enter your second nb:");

        double nb2 = input.nextDouble();

        double sum = nb1 + nb2;

        System.out.println("The sum is " + sum);

    }

}

Q2.

import java.util.Scanner;

public class Q2 {

    public static void main(String[] args) {

        Scanner input = new Scanner(System.in);

        System.out.println("Enter your age: ");

        int age = input.nextInt();

        if (age >= 18) {

            System.out.println("Over 18");

        } else if (age < 0) {

            System.out.println("The age entered is incorrect.");

        } else {

            System.out.println("Under 18");

        }

    }

}

Q3.

import java.util.Scanner;

public class Q3 {

    public static void main(String[] args) {

        Scanner input = new Scanner(System.in);

        System.out.println("Enter your ICT marks:");

        double ict = input.nextDouble();

        System.out.println("Enter your CW marks:");

        double cw = input.nextDouble();

        if (ict >= 30 && cw >= 30){

            double finalMarks = (ict + cw)/2;

            System.out.println("Your final marks is "+ finalMarks);

                if (finalMarks>40){

                    System.out.println("You pass the exam");

                }else{

                    System.out.println("You fail the exam");

                }

        } else{

            System.out.println("Fail the exam");

        }

    }

}

Q4.

import java.util.Scanner;

public class Q4 {

    public static void main(String[] args) {

        Scanner input = new Scanner(System.in);

        System.out.println("Enter your marks: ");

        double marks = input.nextDouble();

        if (marks > 100) {

            System.out.println("Invalid value");

        } else if (marks >= 70 && marks <= 100) {

            System.out.println("1st Class Honours");

        } else if (marks >= 60 && marks <= 69) {

            System.out.println("2nd Class Honours Upper Division");

        } else if (marks >= 50 && marks <= 59) {

            System.out.println("2nd Class Honours Lower Division");

        } else if (marks >= 40 && marks <= 49) {

            System.out.println("3rd Class Honours");

        } else {

            System.out.println("Invalid value");

        }

    }

}

Q5.

import java.util.Scanner;

public class Q5 {

    public static void main(String[] args) {

        Scanner input = new Scanner(System.in);

        System.out.println("Enter your first nb: ");

        double num1 = input.nextDouble();

        System.out.println("What do you want,(+,-,/,\*) ");

        char operator = input.next().charAt(0);

        System.out.println("Enter your second nb: ");

        double num2 = input.nextDouble();

        double result = 0;

        switch (operator) {

            case '+':

                result = num1 + num2;

                break;

            case '-':

                result = num1 - num2;

                break;

            case '\*':

                result = num1 \* num2;

                break;

            case '/':

                if (num2 != 0) {

                    result = num1 / num2;

                } else {

                    System.out.println("Error: Division by zero");

                    return;

                }

                break;

            default:

                System.out.println("Invalid operator");

                return;

        }

        System.out.println("Result: " + result);

    }

}

**Section 02 (Challenging Questions)**

Q6.

import java.util.Scanner;  
  
public class Q6 {  
 public static void main(String[] args) {  
  
 Scanner input = new Scanner(System.*in*);  
  
 System.*out*.println("Enter number of class held?");  
 int held = input.nextInt();  
  
 System.*out*.println("Enter number of class attend?");  
 int attend = input.nextInt();  
  
 double percentage = (attend/held)\*100;  
  
 if (percentage<75){  
 System.*out*.println("Your attendance is low & you can't sit the exam.");  
 }else {  
 System.*out*.println("You can sit the exam.");  
 }  
 }  
}

Q7.

import java.util.Scanner;  
  
public class Q7 {  
 public static void main(String[] args) {  
  
 System.*out*.println("Welcome to banking!");  
  
 Scanner input = new Scanner(System.*in*);  
  
 System.*out*.println("Enter amount of balance: ");  
 double balance = input.nextDouble();  
  
 while (true) {  
 System.*out*.println("\nChoose a transaction:");  
 System.*out*.println("1. Deposit");  
 System.*out*.println("2. Withdrawal");  
 System.*out*.println("3. Check for fraud");  
 System.*out*.println("4. Exit");  
 System.*out*.print("Enter your choice (1-4): ");  
  
 int choice = input.nextInt();  
 input.nextLine();  
  
 switch (choice) {  
 case 1:  
 System.*out*.print("Enter deposit amount: $");  
 double depositAmount = input.nextDouble();  
 balance += depositAmount;  
 System.*out*.println("Deposit successful. Updated balance: $" + balance);  
 break;  
 case 2:  
 System.*out*.print("Enter withdrawal amount: $");  
 double withdrawalAmount = input.nextDouble();  
  
 if (withdrawalAmount > balance) {  
 System.*out*.println("Error: Insufficient funds. Current balance: $" + balance);  
 } else {  
 balance -= withdrawalAmount;  
 if (balance < 0) {  
 System.*out*.println("Warning: Overdraft! Current balance: $" + balance);  
 } else {  
 System.*out*.println("Withdrawal successful. Updated balance: $" + balance);  
 }  
 }  
 break;  
 case 3:  
 if (balance < 100) {  
 System.*out*.println("Warning: Potential fraud detected! Current balance: $" + balance);  
 } else {  
 System.*out*.println("Account balance is above the fraud threshold. Current balance: $" + balance);  
 }  
 break;  
 case 4:  
 System.*out*.println("Exiting the program. Final balance: $" + balance);  
 System.*exit*(0);  
 default:  
 System.*out*.println("Error: Invalid choice. Please enter a valid option.");  
 }  
 }  
 }  
}