1. Find a student average mark given mark1 and mark2 ?

Answer

a. Algorithms

Step1: Start

Step2: Declare the variables mark1, mark2, average

Step3: Read the value of mark1 and mark2

Step4: Add mark1 and mark2 and divide them with 2

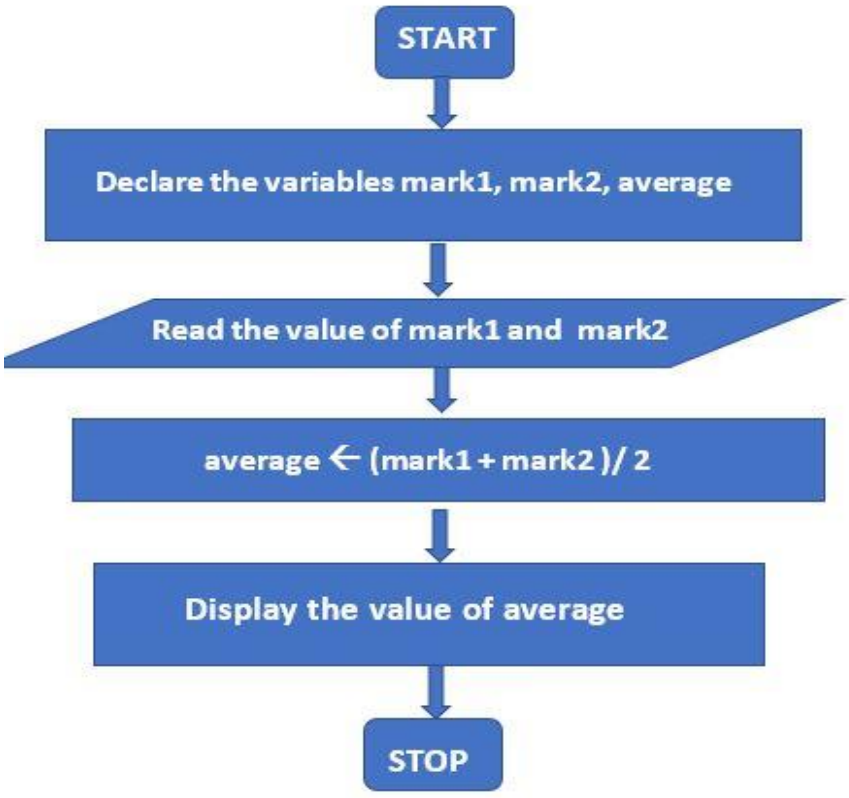
average ← (mark1 + mark2)/ 2

Step5: Store the value in variable average

Step6: Print the value of average

Step7: Stop

b. Flow chart



2. calculate the total fine charged by library for late-return books. The charge is 0.20 INR for 1 day ?

a. Algorithm

Step1: Start

Step2: Declare the floating variables day,pay

Step3: Declare the floating Constant fine = 0.20

Step4: Read the value of day

Step5: Multiply day with fine

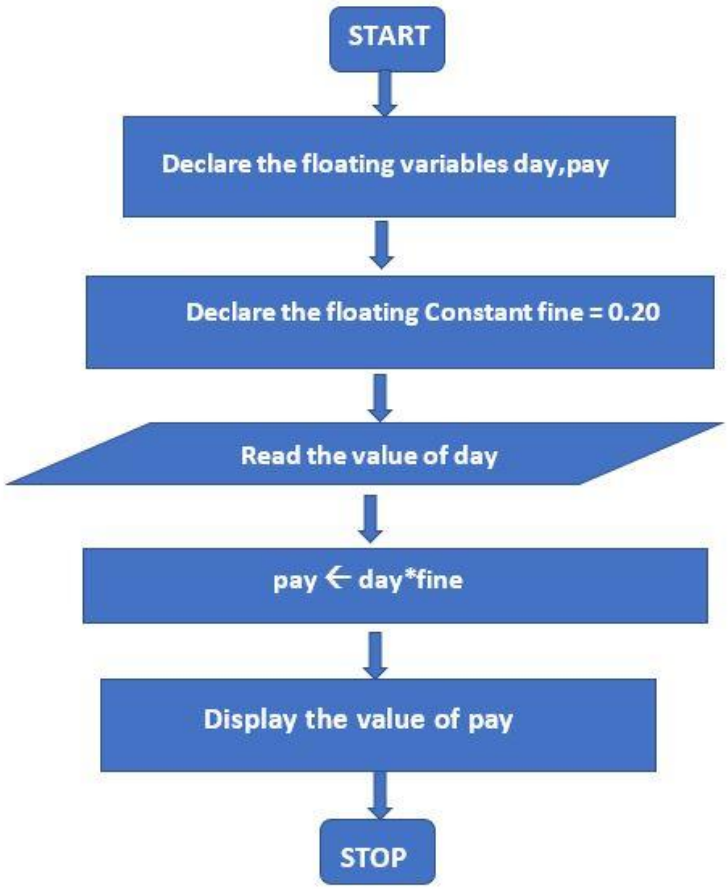
pay ← day*fine

Step6: Store the value of pay

Step7: Print the value of pay

Step8: Stop

b. Flow Chart



3. You had bought a nice shirt which cost Rs. 29.90 with 15% discount. Count the net price for the shirt ?

   a. Algorithms

Step1: Start

Step2: Declare the floating value of variables price, discount

Step3: Declare the floating variable discount_cost, final_amount

Step4: Read the value of price and discount

Step5: Multiply price with discount

discount_cost ← price * discount

Step6: Store the value in discount_cost

Step7:Substract price with discount_cost

final_amount ← price – discount_cost

Step8: Store the value in final_amount

Step9:Print the value of final_amount

Step10: Stop

b. Flow Chart

4. Find the smallest number among three different numbers ?
    a. Algorithm

Step1: Start

Step2: Declare three variables a, b, c

Step3: Read three variable a, b, c

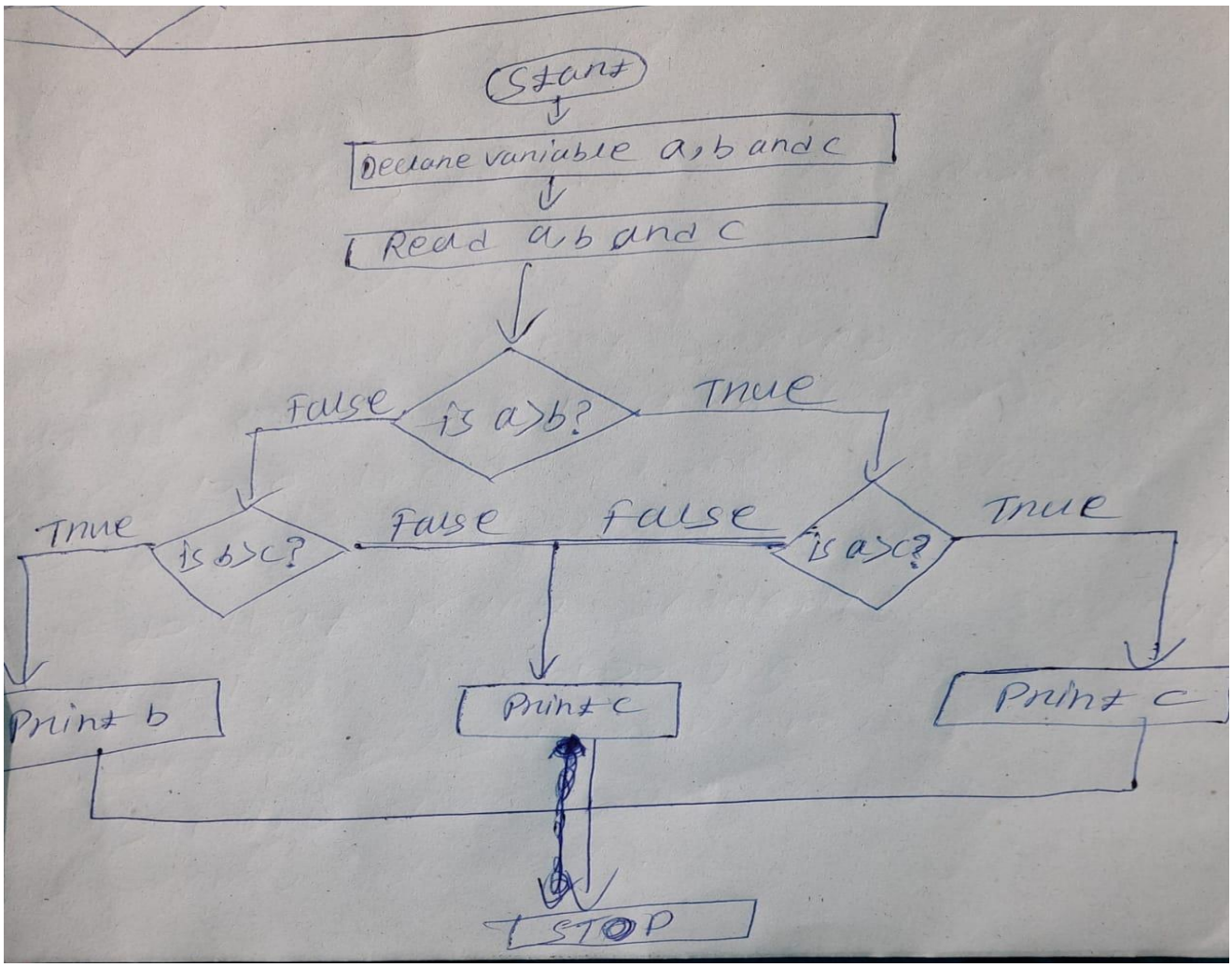
Step4: Compare a with b than c. if a is smaller than b and c than a is smallest among three numbers

Step5: Compare b with a than c. if b is smaller than a and c than b is smallest among three numbers

Step6: Else c is smallest among three numbers

Step7: Stop

    b. Flow Chart



5. Find the Roots of a quadratic equation $ax^2+bx+c = 0$?
   a. Algorithm

Step1: Start

Step2: Declare the variables a, b and c

Step3: Read the value of a, b and c

Step4: The program Calculate the value of Discriminant,

$dis = b^2-4ac$

Step5: It Checks the value of discriminant whether it is less than zero or greater than zero.

Step6: If the dis < 0, the roots are imaginary

$r1 = -b/2a + \sqrt{dis}*i/2a$

$r1 = -b/2a - \sqrt{dis}*i/2a$

STEP 7: Otherwise, there exist two real roots: r1 and r2

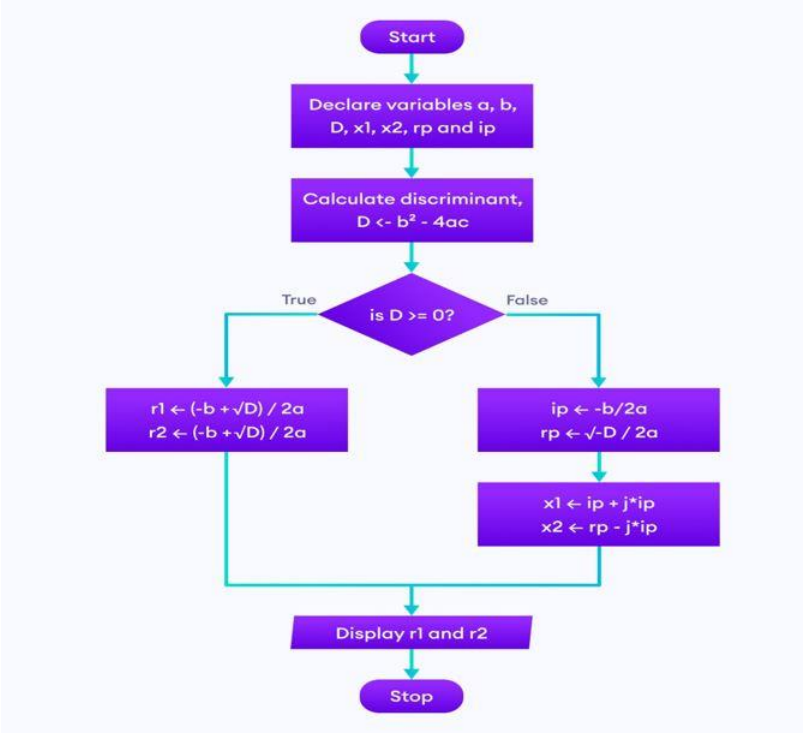
$r1 = (-b + \sqrt{dis})/2$

$r2 = (-b - \sqrt{dis})/2$

STEP 8: displays the roots as output

Step9: Stop

   b. Flow Chart



6. Find the factorial of a given number ?
    a. Algorithm

Step1: Start

Step2: Read the number n

Step3: [Initialize]

i=1, fact=1

Step4: Repeat step 4 through 6 until i<=n

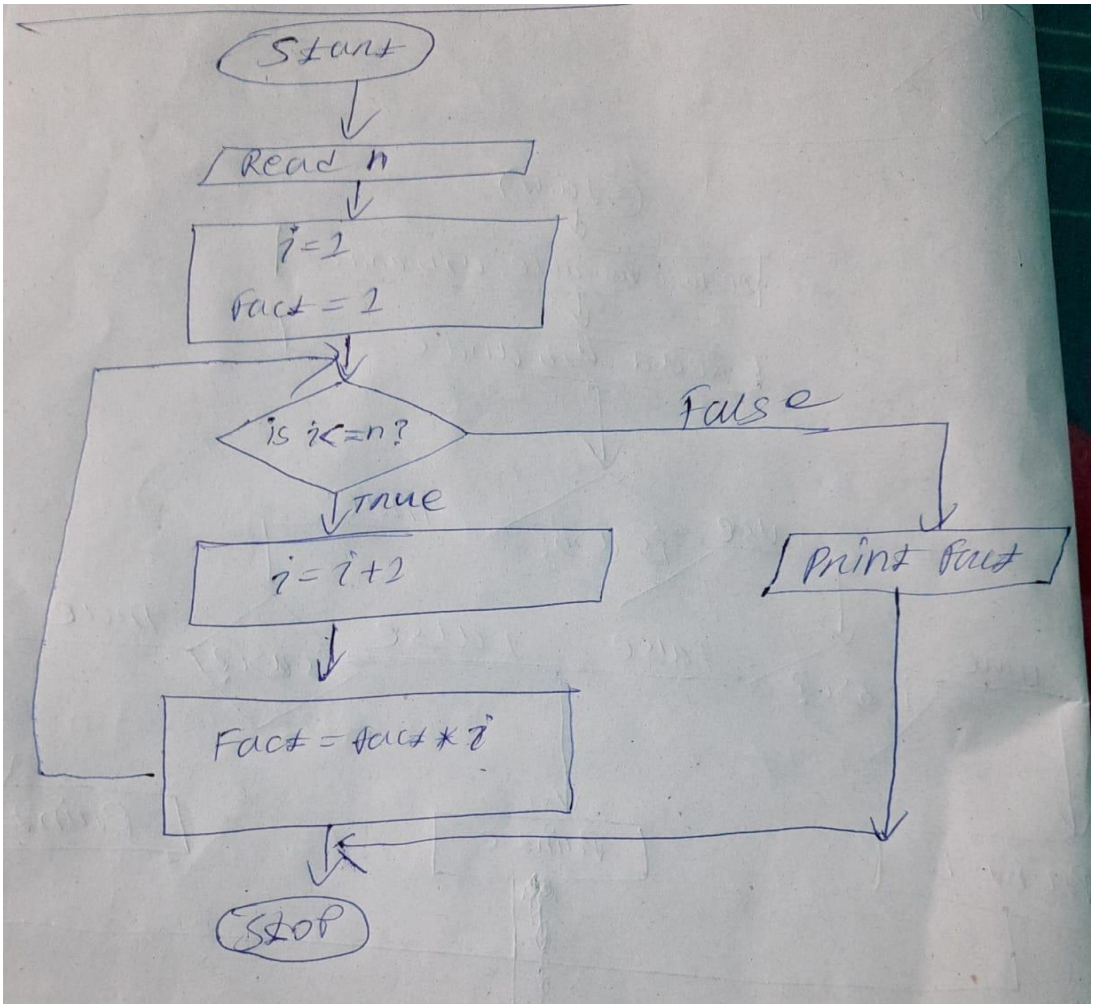
Step5: Fact = fact*i

Step6: i=i+1

Step7: Print fact

Step8: Stop

b. Flow Chart



Assignment – 1 Submitted By

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