EXPT.NO 1) A	**ELECTRICITY BILLING**	DATE 29/11/2022

Aim:

To draw and write flowchart and algorithm for electricity billing.

Algorithm:

STEP 1: start

STEP 2: get no.of.units consumed

STEP 3: If n<=100,Display no.of current or else goto step 4

STEP 4: If n<=200,for 100 units no charge. To calculate energy charge for remaining units use formula
1.5*(N-100)

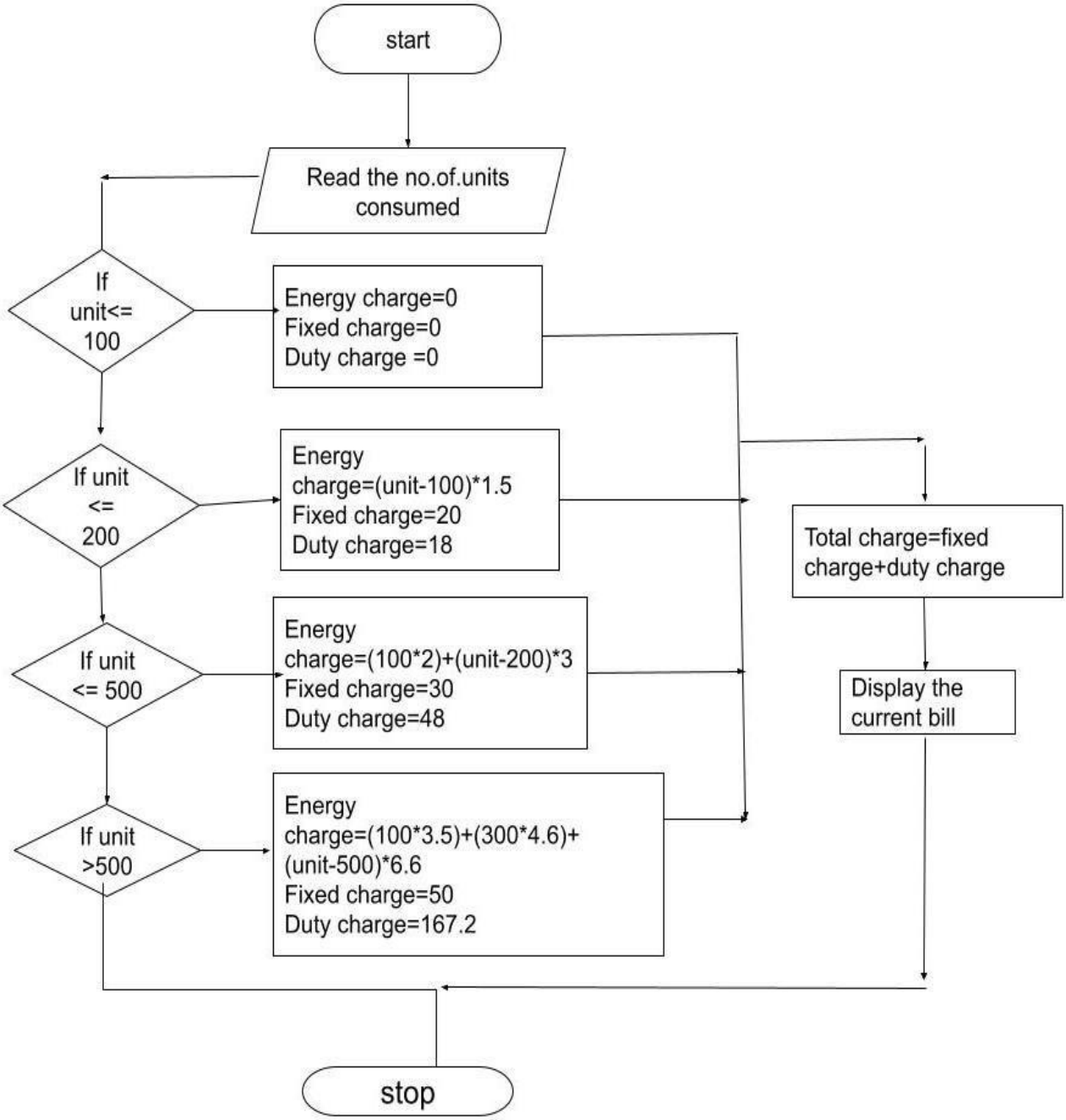
4.1: the total charge is calculated by adding energy charge,duty charge and fixed charge.Then display current and stop.

STEP 5: if n<=500,for 100 units no charge.
for 101-200 units,energy charge
1=100*2=200,
for remaining units calculate energy charge,
(N-200)*3.
The total charge will be calculated.
then display current for the month.
If n>=500 goto step 6

STEP 6: For 101-200 units, energy charge
1=100*3.5=350
For 201-500 units, energy charge
1=300*4.6= 1380
For remaining units calculate energy charge
(N-500)*6.6.
Total energy charge is calculated by adding.
Display current

STEP 7: stop

Flowchart



RESULT: The algorithm and flowchart for the electricity bill is done.

EXPT.NO 1) B	**WEIGHT OF STEEL BAR**	DATE 29/11/2022

Aim:

To draw and write flowchart and algorithm for calculate the weight of steel rod.

Algorithm:

STEP1: start

STEP2: read the number of iron rods

STEP3: initialize I=0,total=0

STEP4: if I<n to check then get the diameter of the rod and calculate unit weight using formula D^2/162

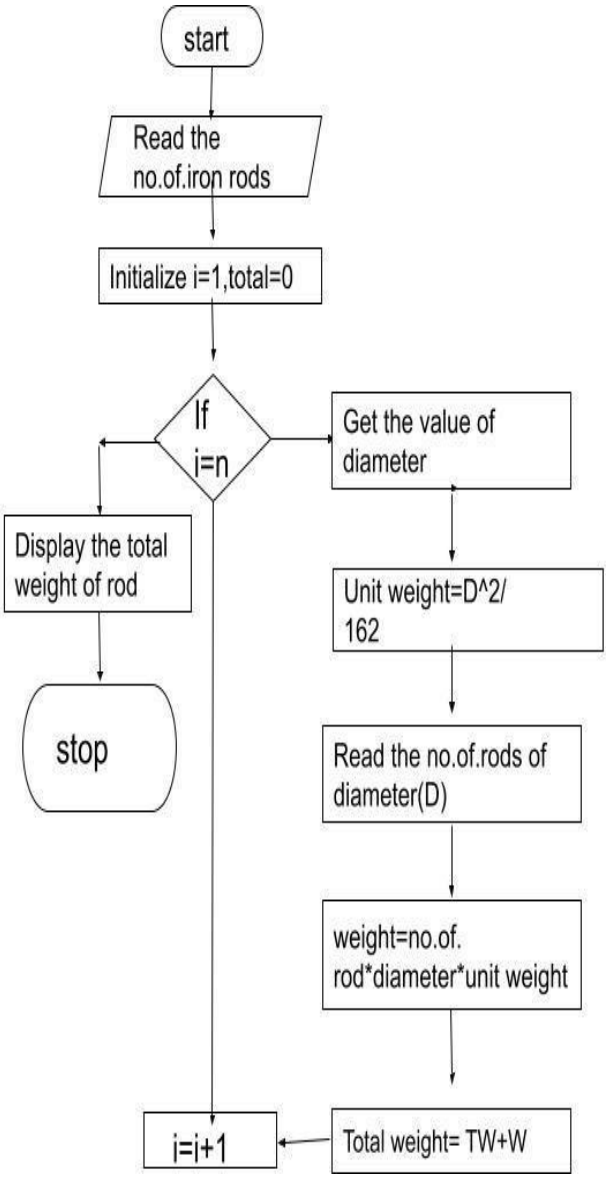
STEP5: get the number of rods of diameter D

STEP6: calculate the weight of rod using no.of rod*D*unit weight.
Then Total weight = TW+W

STEP7: increment value of I by 1. if I>n, display total as total weight of rod.

STEP8: stop

Flowchart



RESULT:

The algorithm and flowchart for the calculating the weight of steel rod is done.

EXPT.NO 1) C	**RETAIL SHOP BILLING**	DATE 29/11/2022

AIM:

To write and draw the algorithm and flowchart for the retail shop billing

Algorithm:

STEP1: start

STEP2: get the bill number, details of customers and no.of.items purchased.

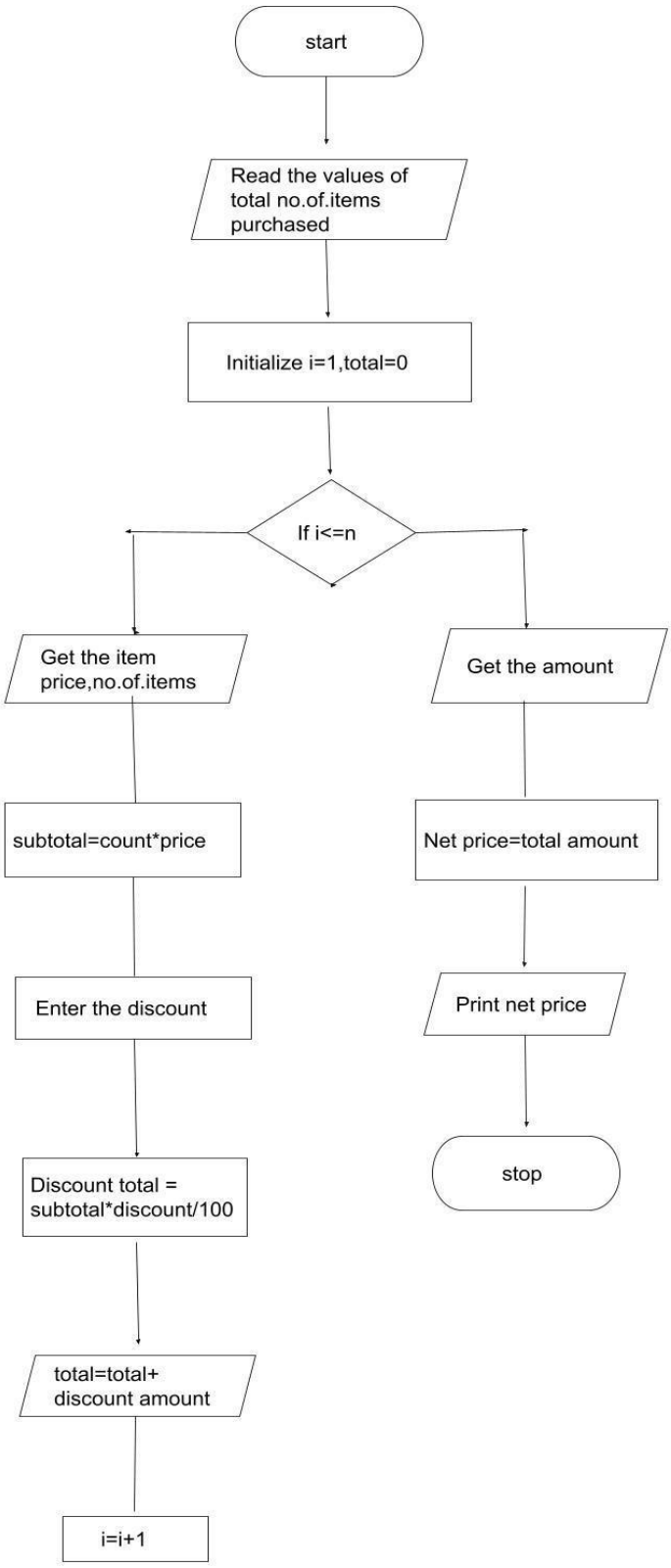
STEP3: initialixe I=0,total=0.

STEP4: if I<=n, get the details like price,count and discount and goto step 5,else goto step 6

STEP5: subtotal= count*price-discount/100
Add the value of subtotal to the total. Increment the value of i by 1.

STEP6: without any discont
Display the total= total bill.

Flowchart



RESULT:

The algorithm and flowchart for calculating the retail shop bill is done.

EXPT.NO 1) D	**COMPUTE ELECTRICAL CURRENT IN THREE PHASE AC CIRCUIT**	DATE 29/11/2022

AIM:

To write and draw algorithm and flowchart for calculating electrical circuit in 3 phase AC circuit

Algorithm

STEP1: start

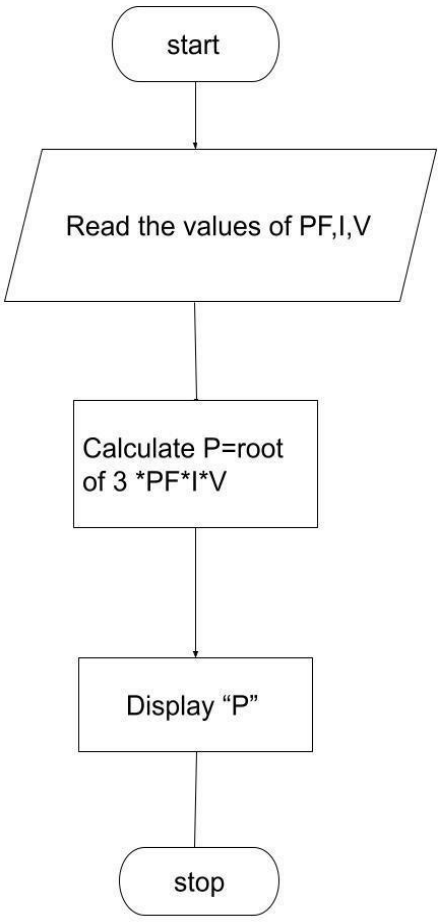
STEP2: read the values of PF,I,V

STEP3: Calculate P using the formula
P= root of 3*PF*I*v

STEP4: display "P"

STEP5: stop

Flowchart



RESULT:

Thus, the algorithm and flowchart is done for the given problem

EXPT.NO 1) E	**SINE SERIES**	DATE 29/11/2022

AIM:

To write and draw algorithm and flowchart for calculating the sine series.

Algorithm:

STEP1: start

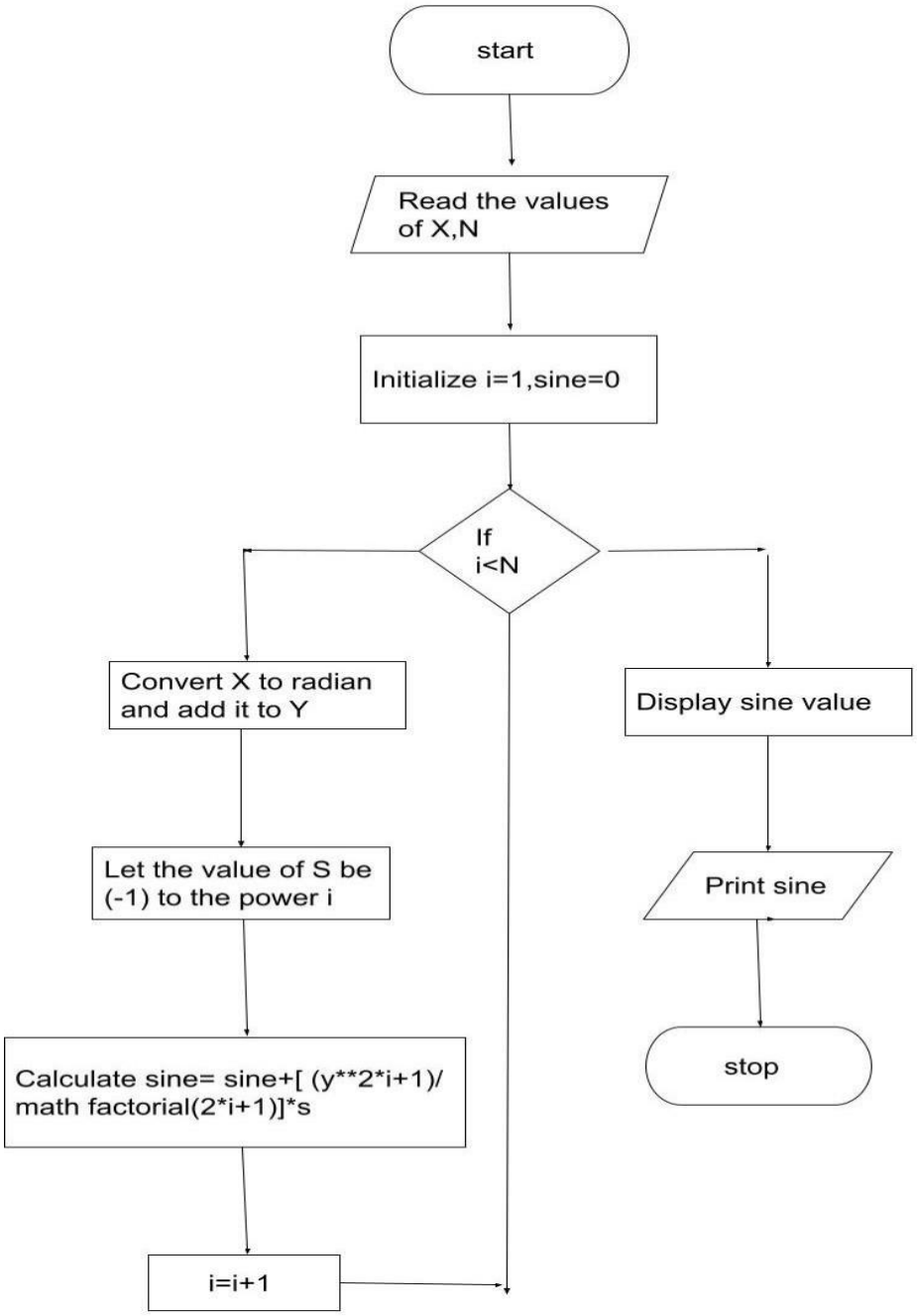
STEP2: read the value of X,N

STEP3: initialize i=1 and sine=0

STEP4: if I<1,
Convert X to radian and add to Y
Let the value of S be(-1) to the power i
Now calculate sine series by
Sine= Sine+[(y**2*i+1)/math factorial(2*i+1)]*S and goto step 5
Else goto step 6

STEP5: increment i value by 1, i=i+1

Flowchart



RESULT:

Thus,the algorithm and flowchart for the given problem is done.

EXPT.NO 1) F	**STUDENT GRADE ANALYSIS**	DATE 29/11/2022

AIM:

To write and draw algorithm and flowchart for analysing student grade analysis

Algorithm:

STEP1: start

STEP2: read student name, roll number and m1,m2,m3

STEP3: calculate total and average marks

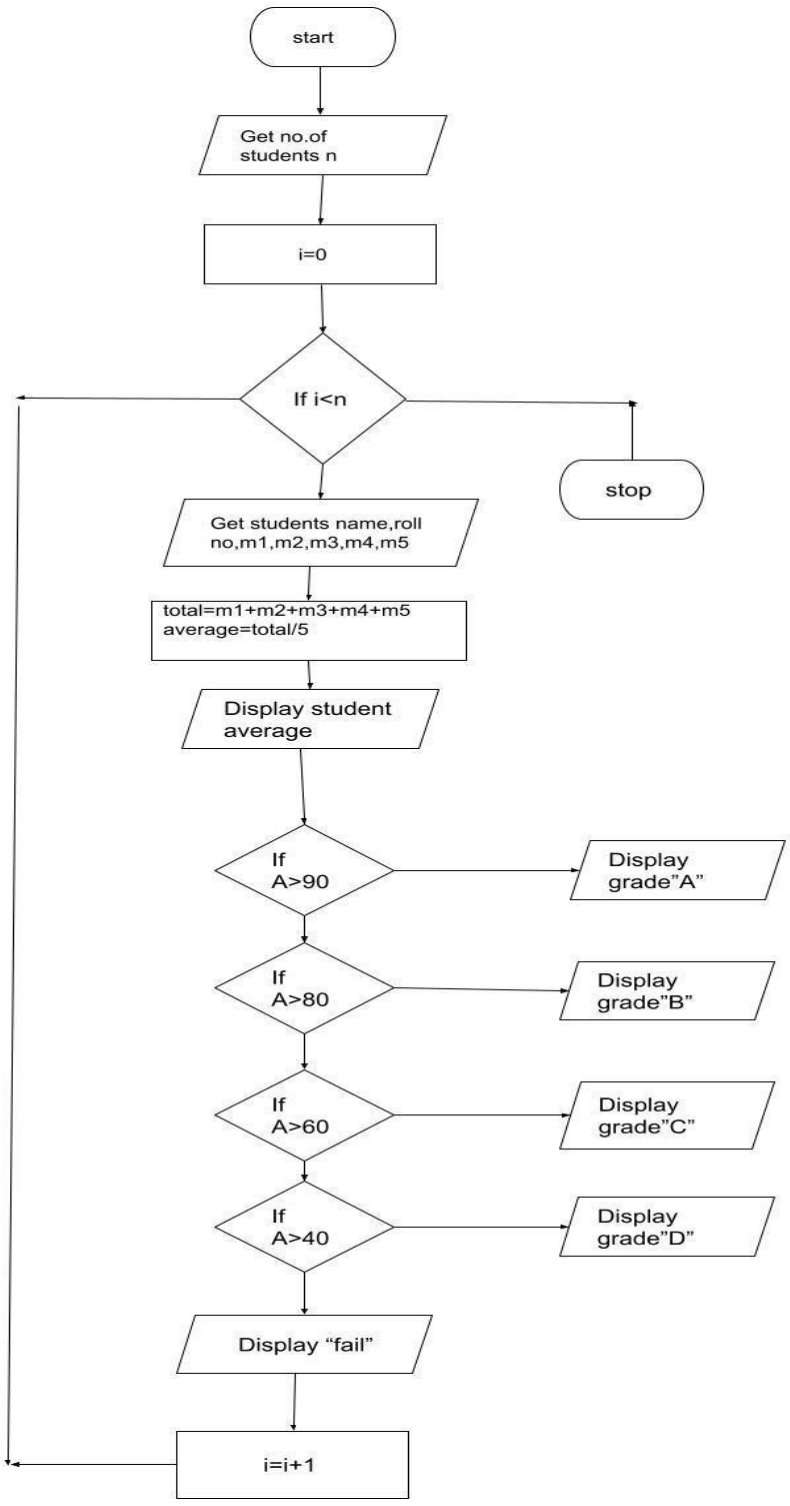
STEP4: initialize i=0 , if i< n goto step 5 else goto stop.

STEP5: calculate total =m1+m2+m3
Average(A) = m1+m2+m3/ 3

STEP6: if A > = 90
Print “a” grade
If A > = 80
Print “b” grade
If A > = 60
Print “c” grade
If A > = 40
Print “d” grade
Else print “fail” and increment i by 1 and check i < n

STEP7: stop

Flowchart



RESULT:

Thus, the algorithm and flowchart for the given problem is done.

EXPT.NO 1) G	**WEIGHT OF A MOTOR BIKE**	DATE 29/11/2022

AIM:

To write and draw algorithm and flowchart for calculating the weight of a motor bike.

Algorithm:

STEP 1: start

STEP 2: Read gross vechicle weight rating(GVWR),
Dry weight(DW)
Rider weight(RW),
Passenger weight(PW) and
Fuel weight(FW)

STEP 3: calculate total weight = FW+RW+DW+PW

STEP 4: read load value

STEP 5: **c**alculate load value = total weight + load

STEP 6: calculate safe weight = GVWR - load weight

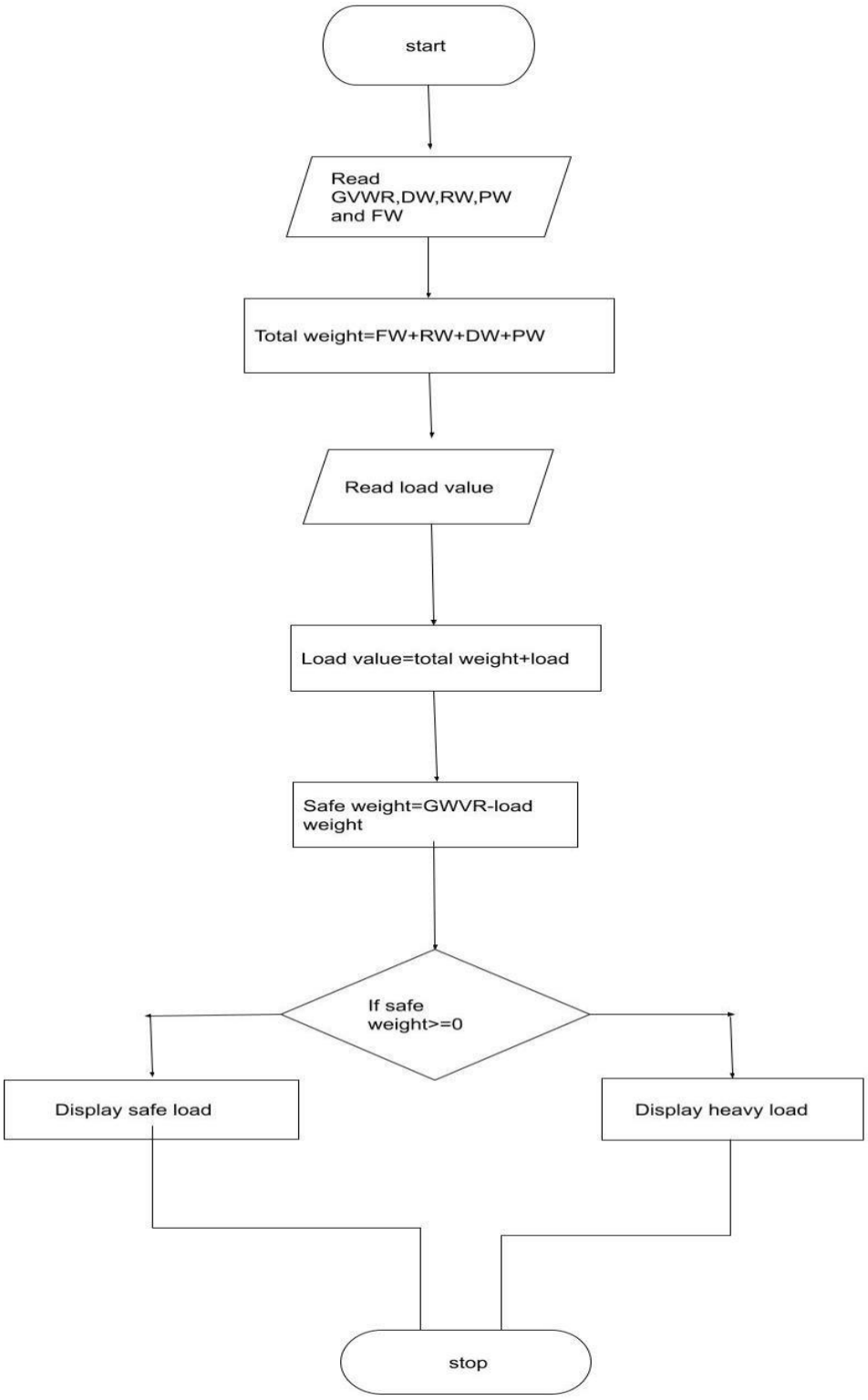
STEP 7: if safe weight > = 0 goto step 8, else goto step 9

STEP 8: display safe load

STEP 9: display heavy load

STEP10: stop

Flowchart



RESULT:

Thus, the algorithm and flowchart for the given calculation is done.