Ex.no:1A Date:29/11/2022	**STUDENT'S GRADE ANALYSIS**

AIM:

To write algorithm and draw flowchart for student grade analysis.

ALGORITHM:

Step 1: Start

Step 2: Number of student as n

Step 3: Assign i=1 and i<=n

Step 4: Get student name, roll number and M1, M2, M3, M4, M5

Step 5: Calculate total by adding all marks,and find average

Step 6: If average >=90 display gradeA,if average>=70 display gradeB

Step6.1:if average>=50 display gradeC,if average<50 display gradeD

Step 7: Set increment value as 1, go to step 3, if condition fails stop

Step 8 : Display student name and grade

Step 9: Stop

PSEUDO CODE:

START

GET n, student name , roll number, marks

ASSIGN i=1, CONDITION, i<=n

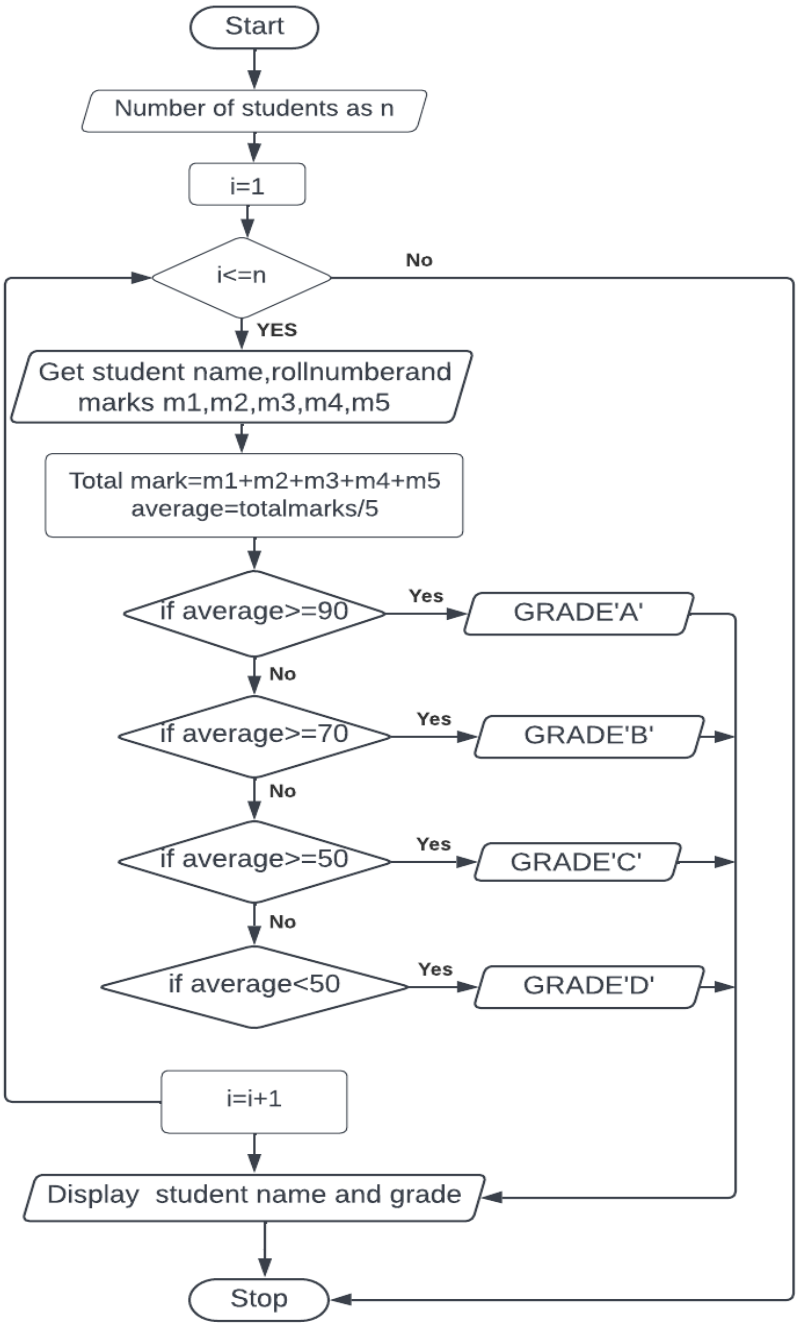
CALCULATE total, average

DISPLAY studentname and grade

INCREMENT i=i+1

STOP

FLOWCHART:



RESULT:

Thus algorithm is written and flowchart is drawn for student's grade analysis.

Ex.no:1B Date:29/11/2022	**CALCULATE ELECTRICITY BILLING**

AIM:

To draw flowchart and write algorithm for calculate electricity billing.

ALGORITHM:

Step 1: Start

Step 2: Get the value of unit

Step 3: If the value of unit less than 100 process the input and go to step8

Step 4: If the condition false check it is less than 300, process the input and go to step8

Step 5: If the condition false check it is less than 600, process the input and go to step8

Step 6: If the condition false check it is less than 800, process the input and go to step8

Step 7: If condition false, break

Step 8: Total charge= Energy charge +Fixed charge +Duty charge

Step 9: Display total charge

Step10: Stop

PSEUDOCODE:

START

GET unit

IF condition true process the output

IF condition false

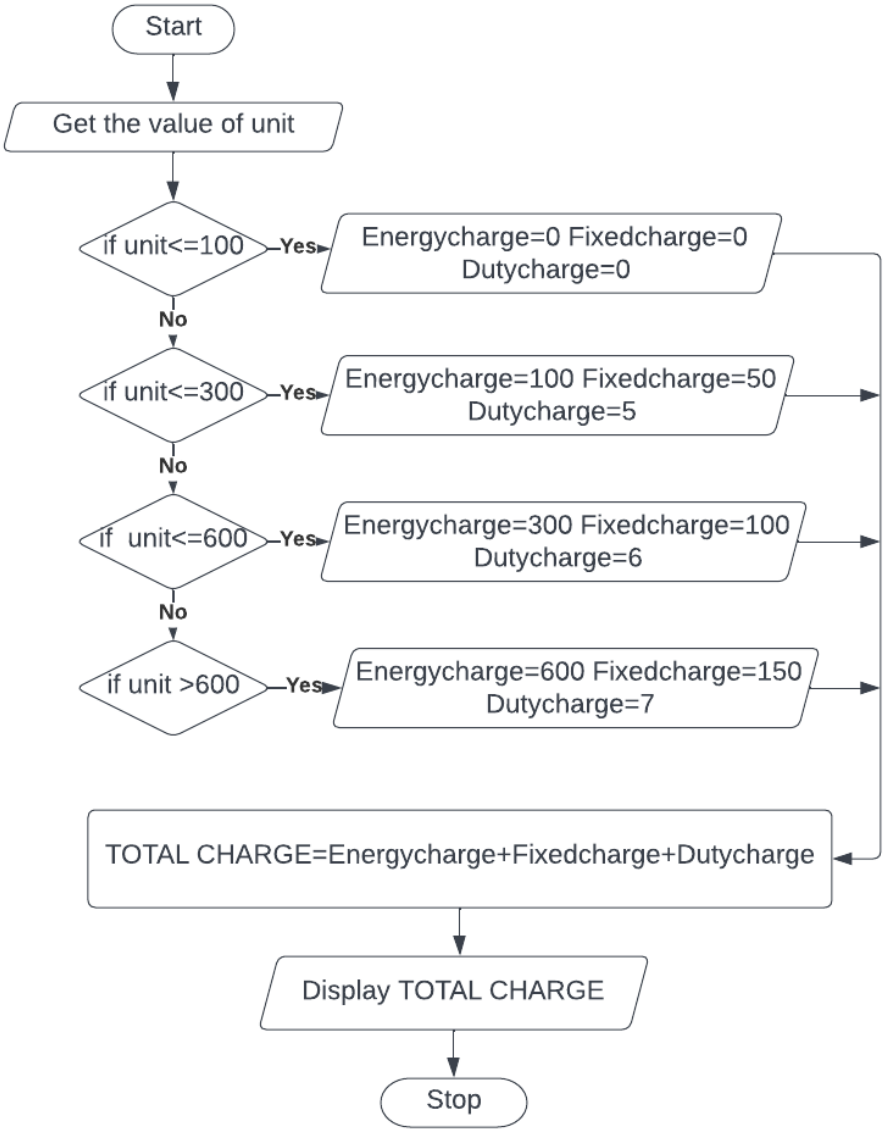
Break

CALCULATE total charge

DISPLAY total charge

STOP

FLOWCHART:



RESULT:

Thus the algorithm is written and flowchart is drawn for calculate electricity billing.

Ex.no:1C Date:29/11/2022	**RETAIL SHOP BILLING**

AIM:

To draw flowchart and write algorithm for calculating retail shop billing.

ALGORITHM:

Step 1: Start

Step 2: GET number of product as n

Step 3:Assign i=0

Step4: If i less than or equal to n goto step5 else goto step8

Step 5: Get item name, value, and its quantity

Step 6: Calculate amount by multiplying its value and quantity

Step 7: Fix increment value 1

Step 8: Get GST and calculate total amount

Step 9: Display total amount

Step 10: Stop

PSEUDO CODE:

START

GET n

ASSIGN i=0

CONDITION i<=n

GET item name, value, quantity

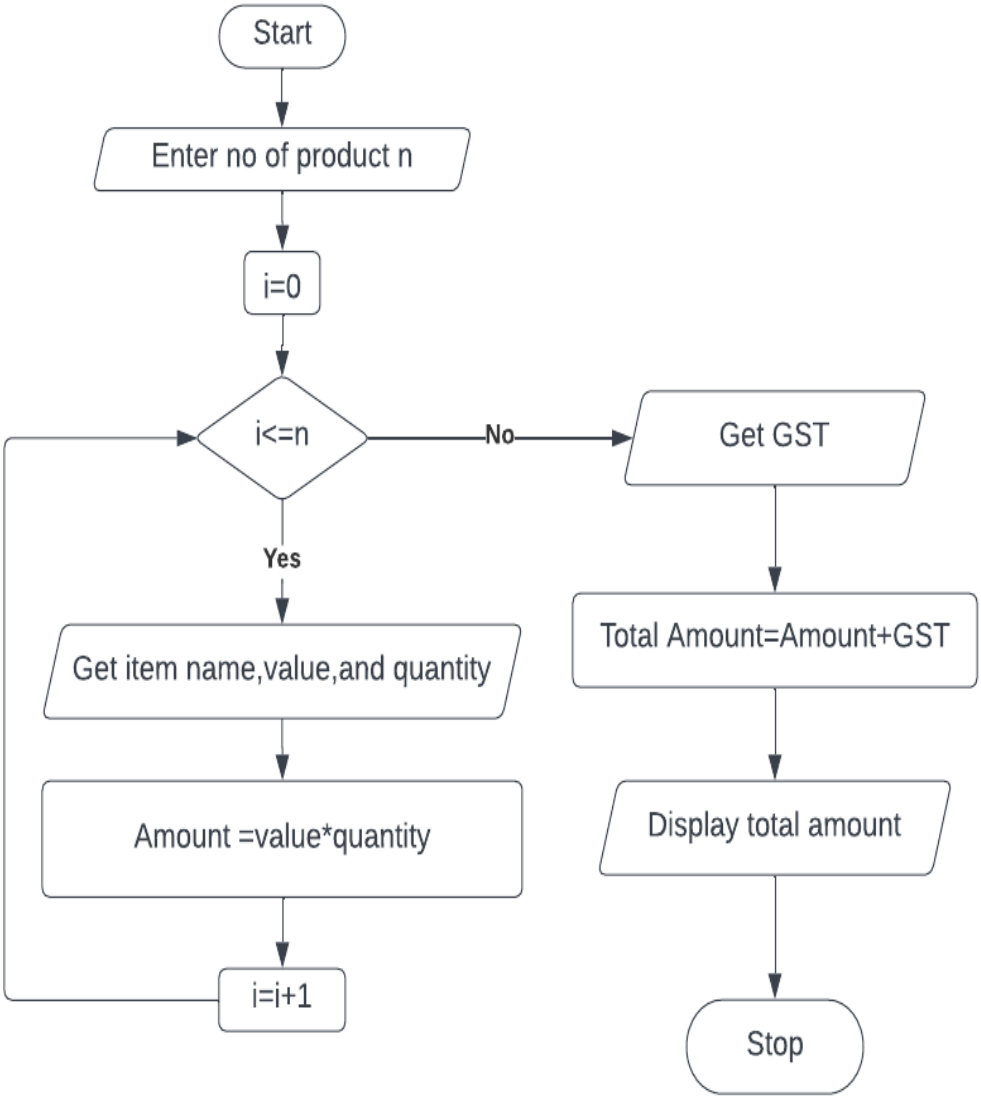
CALCULATE amount=value*quantity

GET GST CALCULATE total amount

DISPLAY total amount

STOP

FLOWCHART:



RESULT:

Thus algorithm is written and flowchart is drawn for retail shop billing.

Ex .no:1D Date:29/11/2022	**WEIGHT OF STEEL BAR**

AIM:

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

ALGORITHM:

Step 1: Start

Step 2: Get Number of steel rod as n

Step 3: Assign i=1and i less than or equal to n

Step 4: Get diameter of the rod and calculate weight using given formula

Step 5: Calculate total weight by multiplying n and weight

Step 6: Display total weight of the rod

Step 7: Set increment value 1 and go to step 3

Step 8: Stop

PSEUDO CODE:

START

GET n

ASSIGN i=1

CONDITION i<=n

GET D

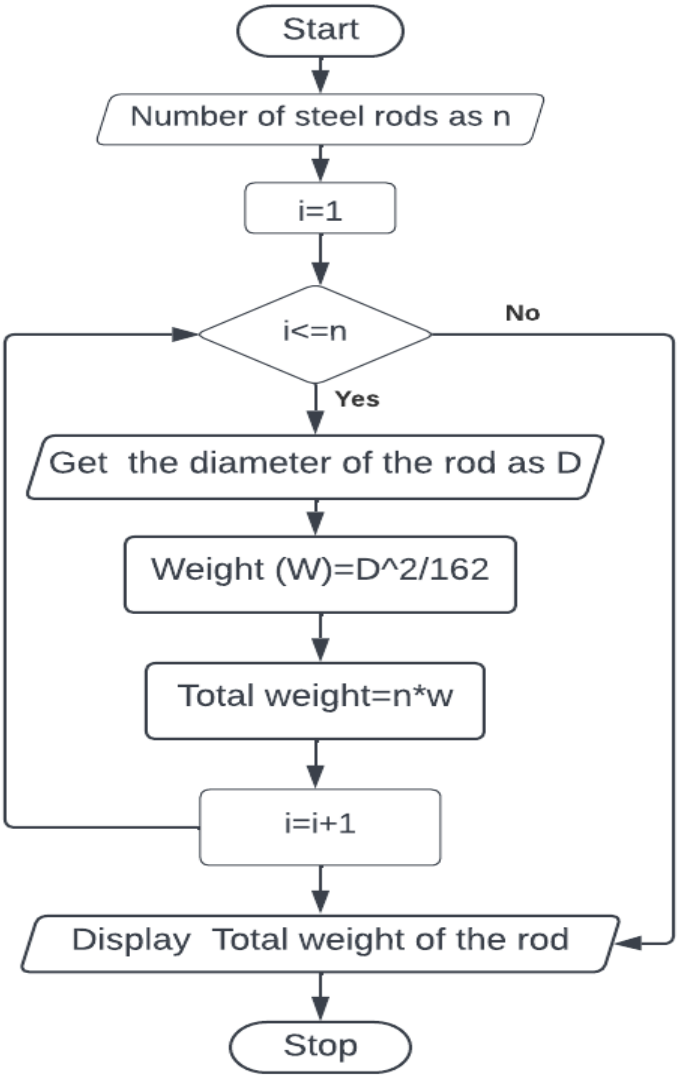
CALCULATE total weight

DISPLAY total weight

i=i+1

STOP

FLOWCHART:



RESULT:

Thus, algorithm is written and flowchart is drawn for calculate weight of steel bar.

Ex.no:1E Date:29/11/2022	**CALCULATE SINE SERIES**

AIM:

To draw flowchart and write algorithm for calculate sine series.

ALGORITHM:

Step 1: Start

Step 2: Read the value of x and n

Step 3: Initialize i equal to 1 and i less then n

Step 4: Check the condition, the condition true, calculate the value using formula

Step 5: If condition false, stop

Step 6: Assume x equal to a, sum equal to x and sum equal to sum plus a

Step 7: a = -ax*x /2i (2i+1)

Step 8: Display sum

Step 9: Set increment value as 1, check the condition and display sum

Step 10: Stop

PSEUDO CODE:

START

READ x,n

INITIALIZE i=1

CONDITION i<=n

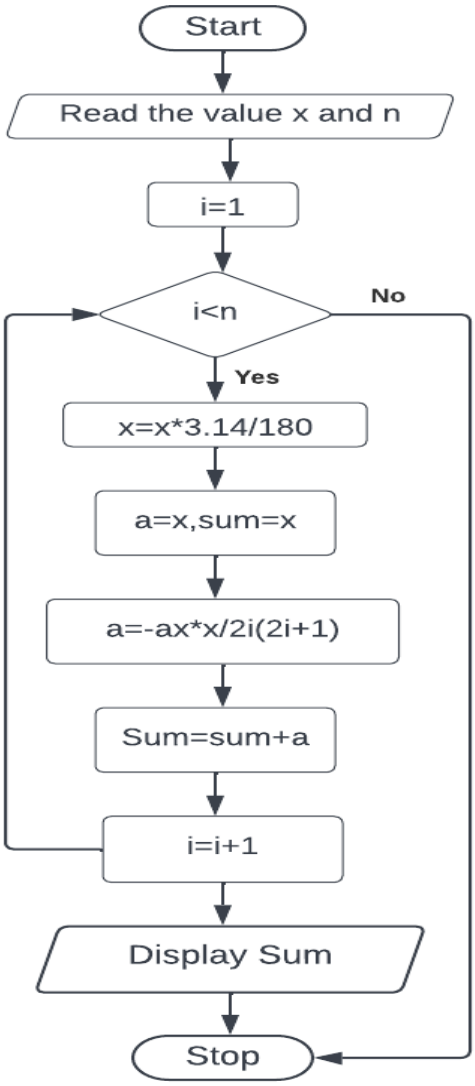
x=x*3.14/180, a=-ax*x/2i(2i+1)

a=x, sum=x, i=i+1

DISPLAY sum

STOP

FLOWCHART:



RESULT:

Thus the flowchart is drawn and algorithm is written for calculating sine series.

Ex. no: 1F Date29/11/2022	**WEIGHT OF A MOTOR BIKE**

AIM:

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

ALGORITHM:

Step 01: Start

Step 02: Get gross vehicle weight rating

Step 03: Get dry weight

Step 04: Get fuel weight

Step 05: Get passenger weight

Step 06: Get loaded weight

Step 07: Calculate total weight by adding all weight

Step 08: Calculate safe weight

Step 09: Display total weight and safe weight

Step 10: Stop

PSEUDO CODE:

START

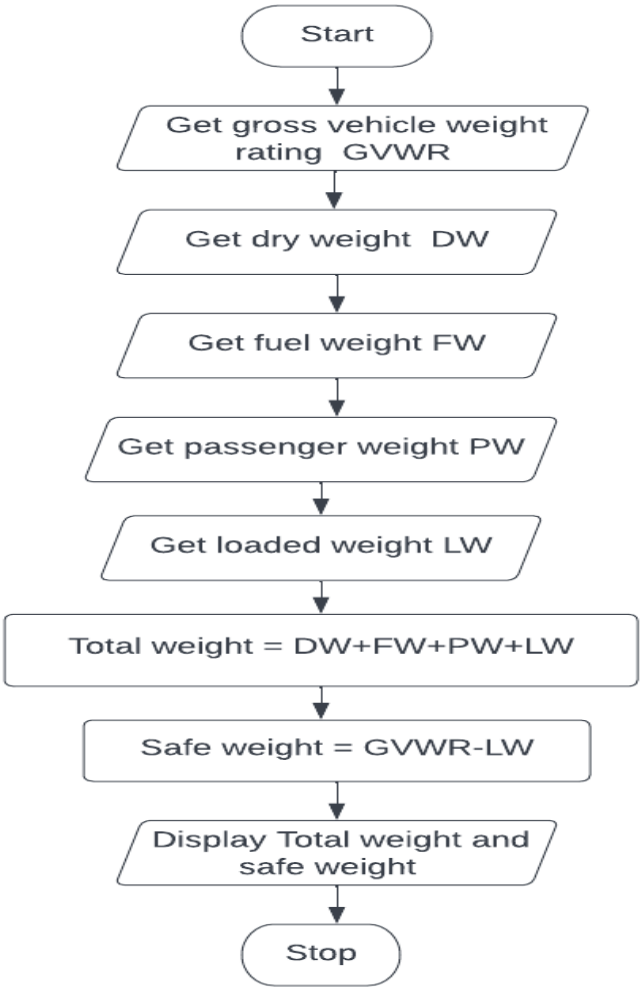
GET GVWR,DW,FW,PW,LW

CALCULATE total weight ,safe weight

DISPLAY total weight ,safe weight

STOP

FLOWCHART:



RESULT:

Thus flowchart is drawn and algorithm is written for calculate weight of motor bike.

Ex. no: 1G Date :29/11/2022	**CALCULATE ELECTRIAL CURRENT IN 3 PHASE AC CIRCUIT**

AIM:

To draw flowchart and write algorithm for calculate electrical current in 3 phase AC circuit.

ALGORITHM:

Step 1: Start

Step 2: Read the value of v, pf and i

Step 3: Calculate P using formula P= 1.732*pf*i*v

Step 4: Display the result P

Step 5: Stop

PSEUDO CODE:

START

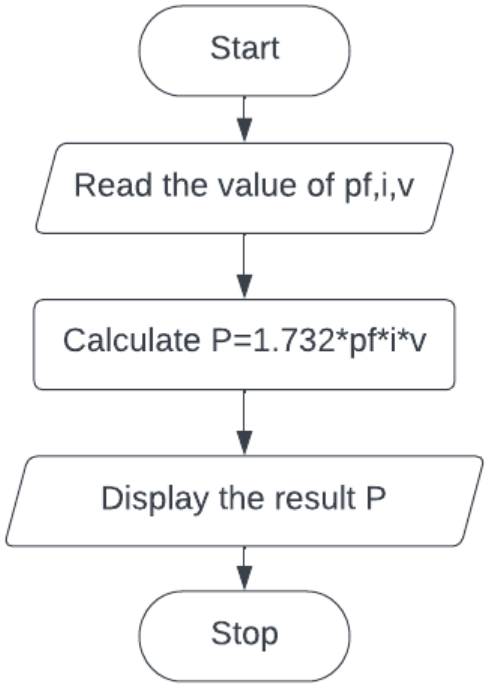
GET pf ,i ,v

CALCULATE P=1.732*pf*v*i

PRINT P

STOP

Flowchart:



Result:

Thus the flowchart is drawn and algorithm is written for calculate electrical circuit in 3 phase AC circuit.