

Exp.no:1-A

Date :29/11/2022

## **ELECTRIC BILL CALCULATION**

### **AIM:**

To draw the flow chart and write the algorithm for calculating electricity bill.

### **ALGORITHM:**

Step 1: Start

Step 2: Enter unit consumed N.

Step 3: Check for condition  $N > 500$  If true

3.1: Calculate E.C using formula.  $FC=75, DC=100, EC=(400*4.5)+(N-500)*6$

3.2: Calculate the total charges  $= FC + DC + EC$

3.3: Display the amount need to pay and go to stop

Step 4: Check the condition  $200 < N \leq 500$  If true

4.1: Calculate E.C using formula.  $FC=30, DC=48, EC=(100*2)+(N-100)*3.5$

4.2: Calculate the total charges  $= FC + DC + EC$

4.3: Display the amount need to pay and go to stop

Step 5: Check the condition  $100 < N \leq 200$  If true

5.1: Calculate E.C using formula.  $FC=20, DC=18, EC=(N-100)*1.5$

5.2: Calculate the total charges  $= FC + DC + EC$

5.3: Display the amount need to pay and go to stop

Step 6: Check the condition  $N \leq 100$  If true

6.1: Calculate E.C using formula.  $FC=0, DC=0, EC=0$

6.2: Calculate the total charges  $= FC + DC + EC$

6.3: Display the amount need to pay and go to stop

Step 7: Stop

Pseudo code

START

ENTER unit consumed N

IF ( $N > 500$ )

THEN

CALCULATE  $EC = (400 * 4.5) + (N - 500) * 6$ ,  $FC = 75$ ,  $DC = 100$

CALCULATE the total charge =  $FC + DC + EC$

DISPLAY the amount

ELSE

STOP

IF ( $200 < n \leq 500$ )

THEN

CALCULATE  $EC = (100 * 2) + (N - 100) * 3.5$ ,  $FC = 30$ ,  $DC = 48$

CALCULATE the total charge =  $FC + DC + EC$

DISPLAY the amount

ELSE

STOP

IF ( $100 < N \leq 200$ )

THEN

CALCULATE  $EC = (N - 100) * 1.5$ ,  $FC = 20$ ,  $DC = 18$

CALCULATE the total charge =  $FC + DC + EC$

DISPLAY the amount

ELSE

STOP

IF ( $N \leq 100$ )

CALCULATE  $EC = 0$ ,  $FC = 0$ ,  $DC = 0$

CALCULATE the total charge =  $FC + DC + EC$

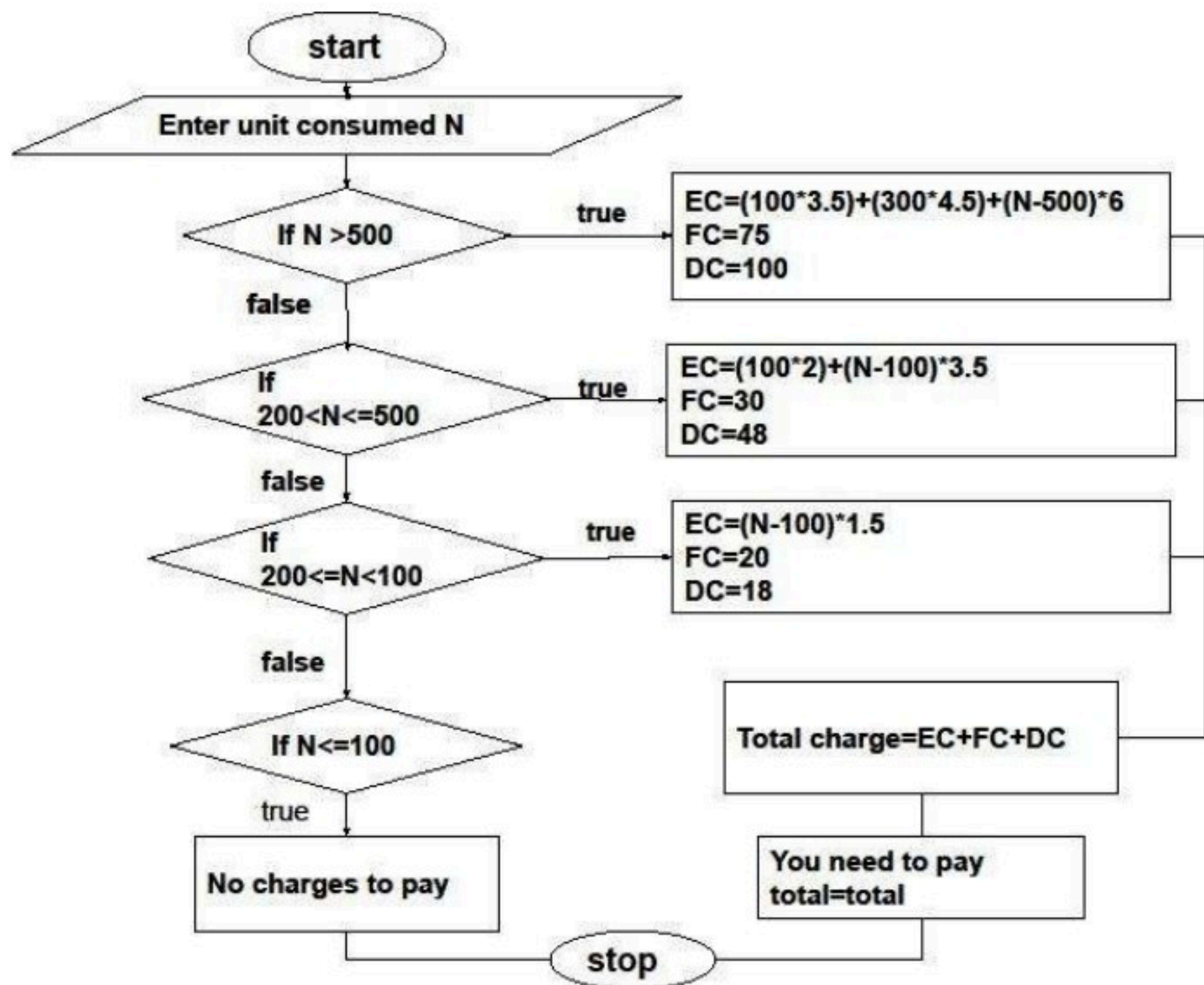
DISPLAY the amount

ELSE

STOP

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## RESULT:

Thus the flowchart and algorithm is written for the given problem.