

Assignment 4

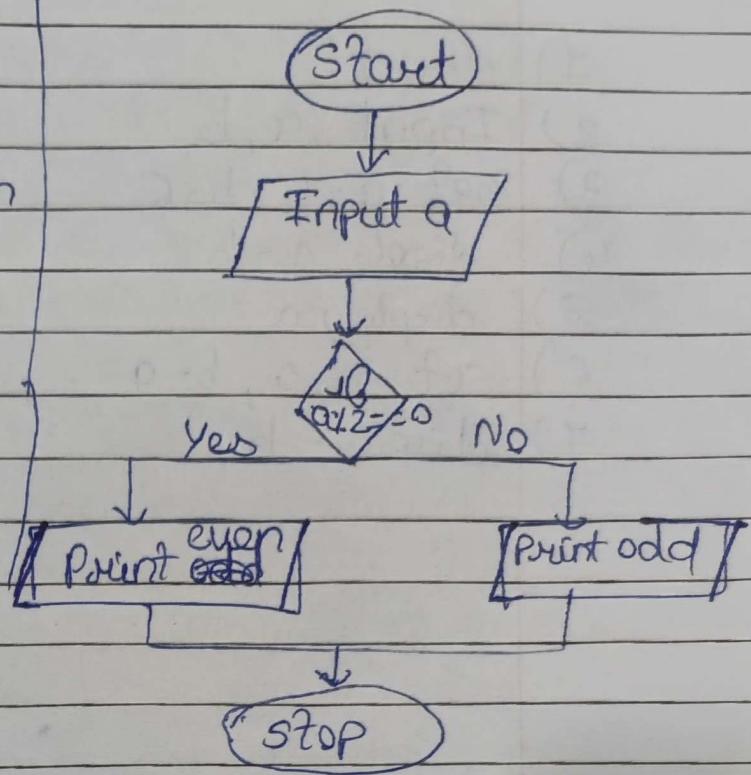
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A2 * Algorithm:-

- 1) Start
- 2) Input a
- 3) if $a \% 2 == 0$ then even
else odd

w\ display a.
6) end.

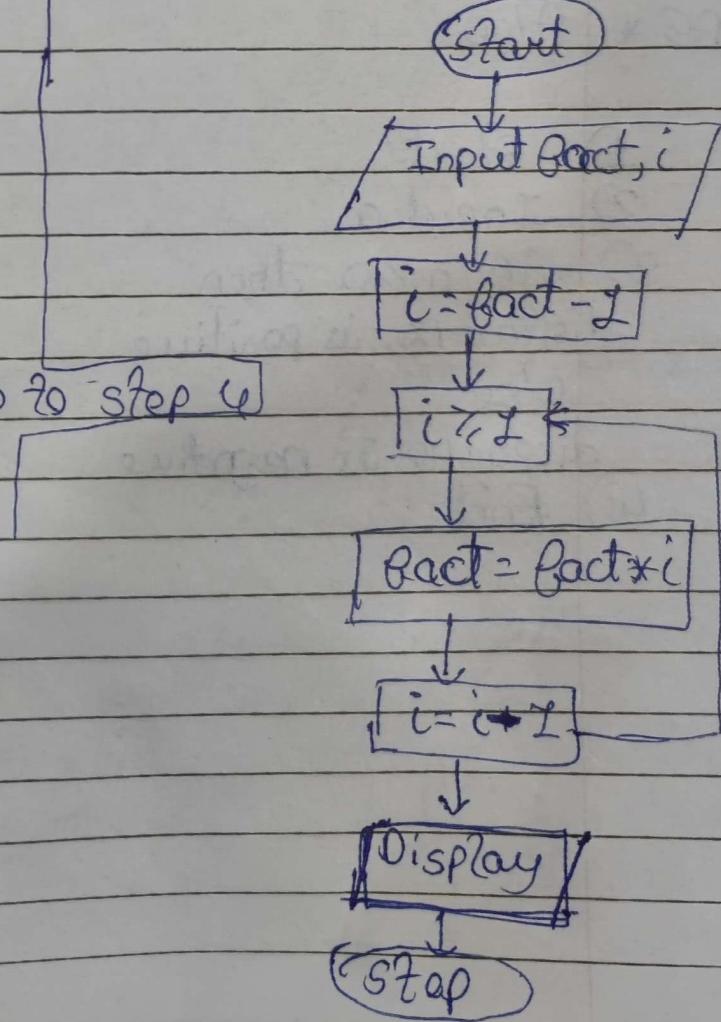
* Flowchart



A2 * Algo :-

- 1) Start
- 2) input Fact, i
- 3) Set $i = \text{Fact} - 1$
- 4) check condition $i \geq 1$
- 5) $\text{Fact} = \text{Fact} * i$
- 6) ^{decrement} _{Decrement i} and go to step 4
- 7) display Fact
- 8) End.

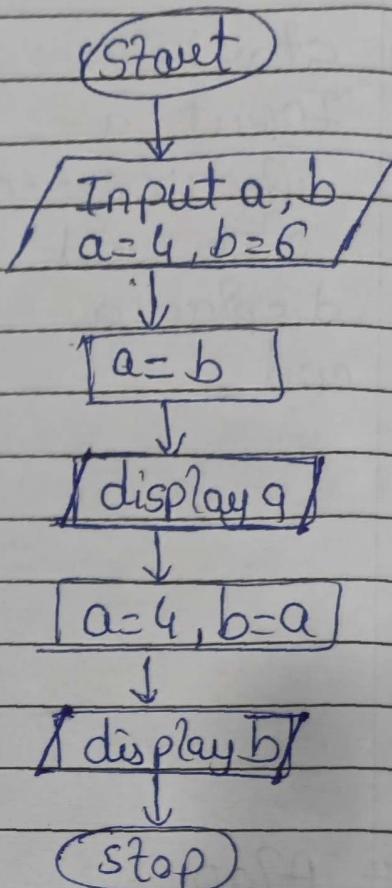
* Flowchart



A4 * Algo

* Flowchart

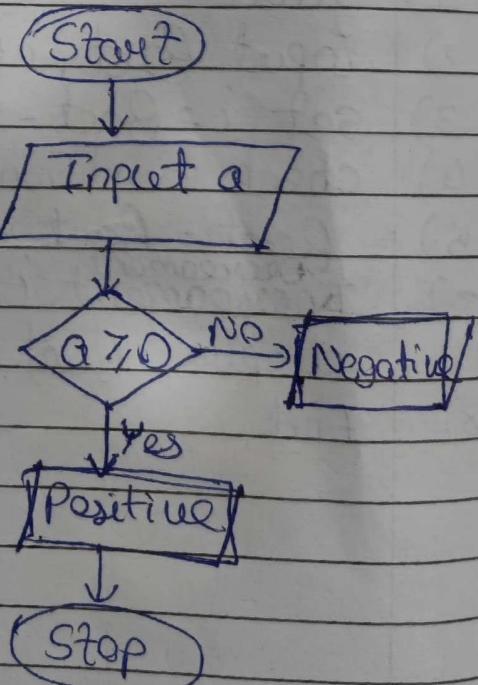
- 1) Start
- 2) Input a, b
- 3) Set a=4, b=6
- 4) display a-b
- 5) display a
- 6) Set a=4, b=a
- 7) display b.



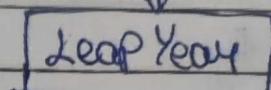
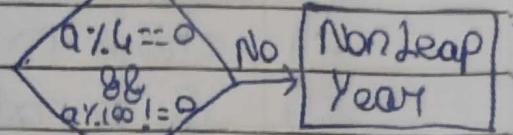
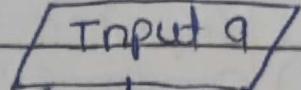
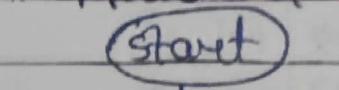
AS * Algo

* Flowchart

- 1) Start
- 2) Input a
- 3) if $a \geq 0$ then
display no. is positive
else
display no is negative
- 4) End

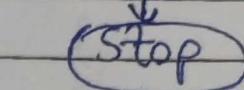


* Flowchart



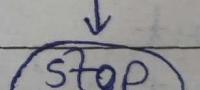
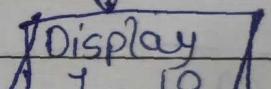
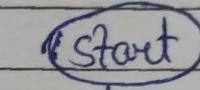
A6 * Algo.

- 1) Start
- 2) Input a
- 3) if $a \% 4 == 0$ AND $a \% 100 != 0$ then
display Leap Year
else
display Non-Leap Year
- 4) End



A7 * Algo

- 1) Start
- 2) Display 1 ... 10
- 3) End.



A8 * Algo

- 1) Start
- 2) Input n, count=1, i=1
- 3) Display "Enter n"
- 4) check condition $i \leq n$

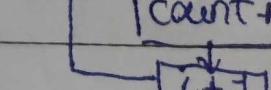
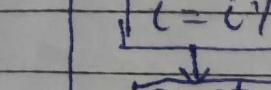
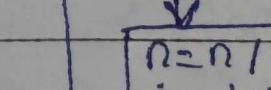
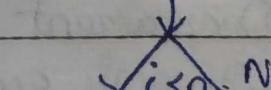
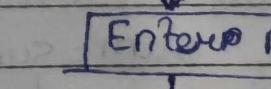
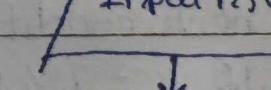
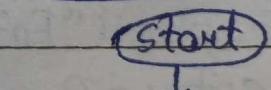
5) $n = n / 10;$
 $i = i \% 10;$

6) count + 1

7) Increment i AND goto step 4

8) Display Count

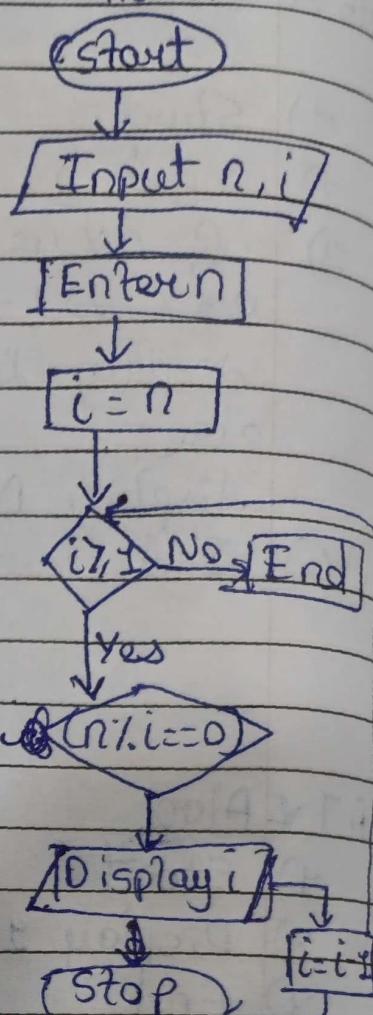
9) End



A9 * Algo

- 1) Start
- 2) Input n, i
- 3) Display ("Enter n")
- 4) check condition $i = n$ ^{Set}
- 5) check condition $i \geq 1$
- 6) if n modulo i equals 0
then display i
- 7) Decrement i AND go back to 5)
- 8) End

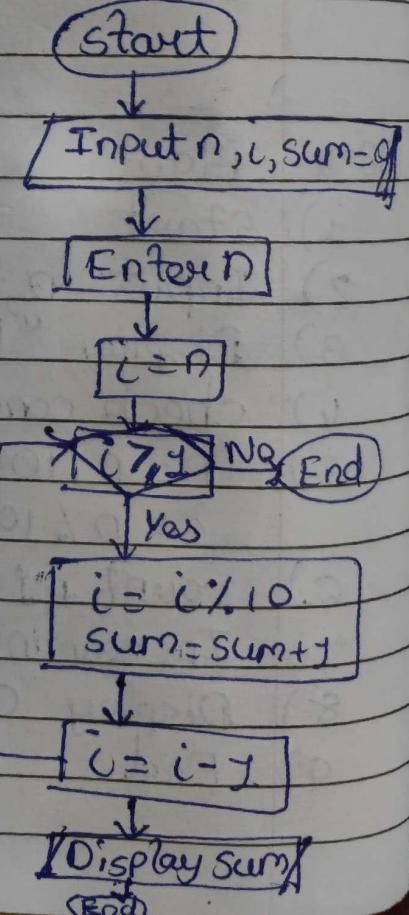
* Flowchart



A10 * Algo

- 1) Start
- 2) Input n, i, sum=0
- 3) Display ("Enter n")
- 4) set i = n
- 5) check condition $i \geq 1$
- 6) ~~i = i % 10~~
 $sum = sum + i$
- 7) Decrement i AND goto 5)
- 8) Display sum
- 9) End.

* Flowchart



All * Algo.

1) Start

2) Input a, b, c

3) Check condition:

3) if ($a < b$ AND $b < c$ OR $b = c$)
then, a is smallest

else-if ($b < a$ AND $a < c$ OR $a = c$)
then display b is smallest

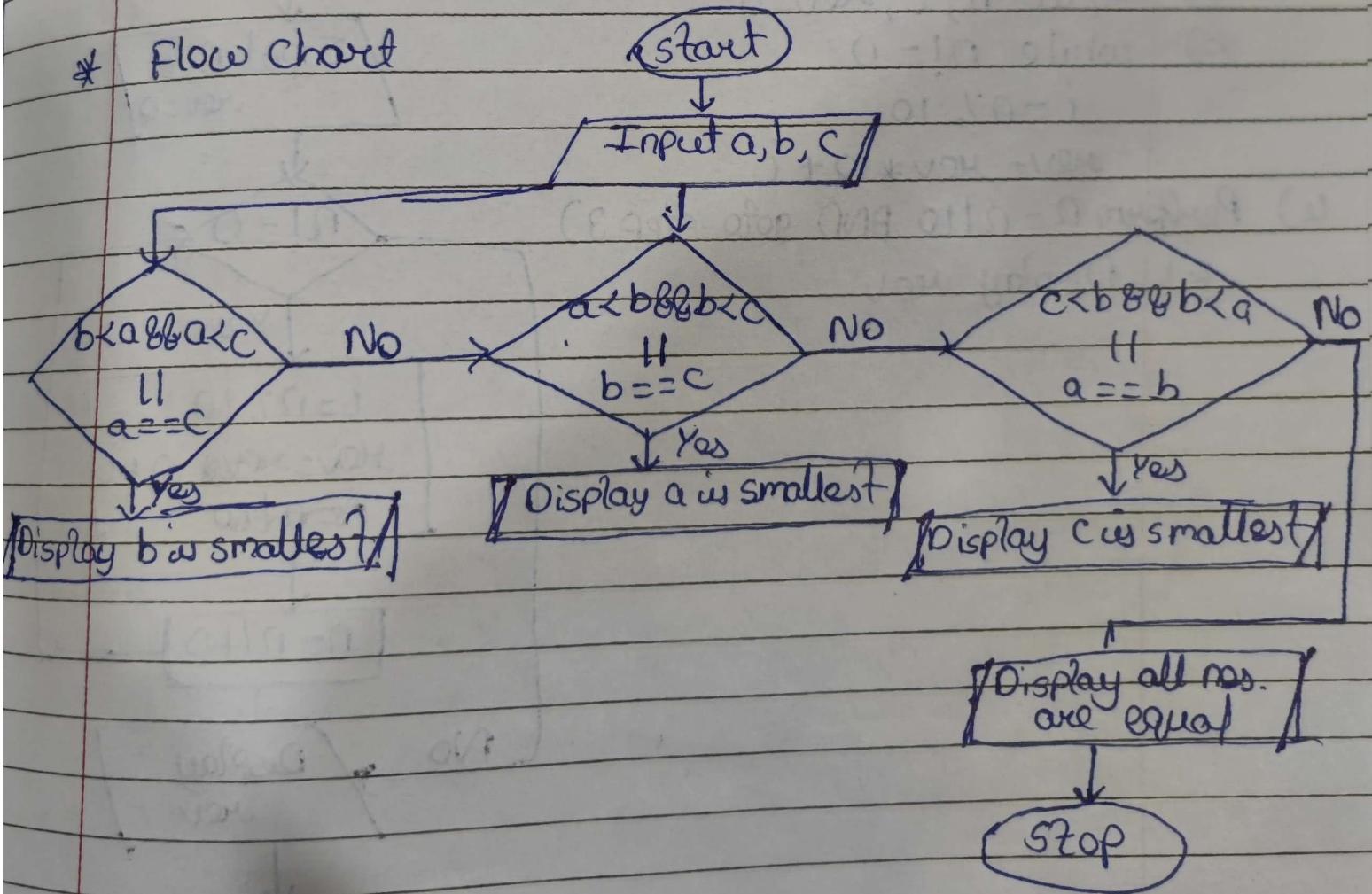
else-if ($c < b$ AND $b < a$ OR $a = b$)
then display c is smallest

else

display all nos. are equal.

w) End.

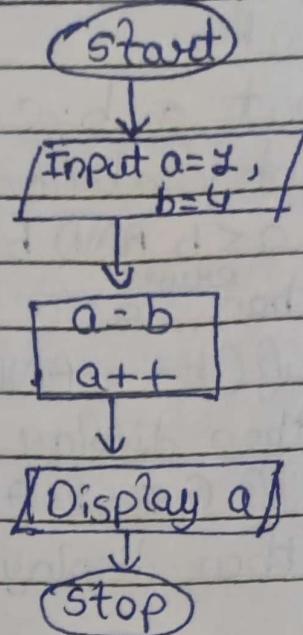
* Flow chart



A12 * Algo

- 1) Start
- 2) Input $a=2, b=4$
- 3) $a=b$
 $a++$
- 4) display a

* Flow Chart



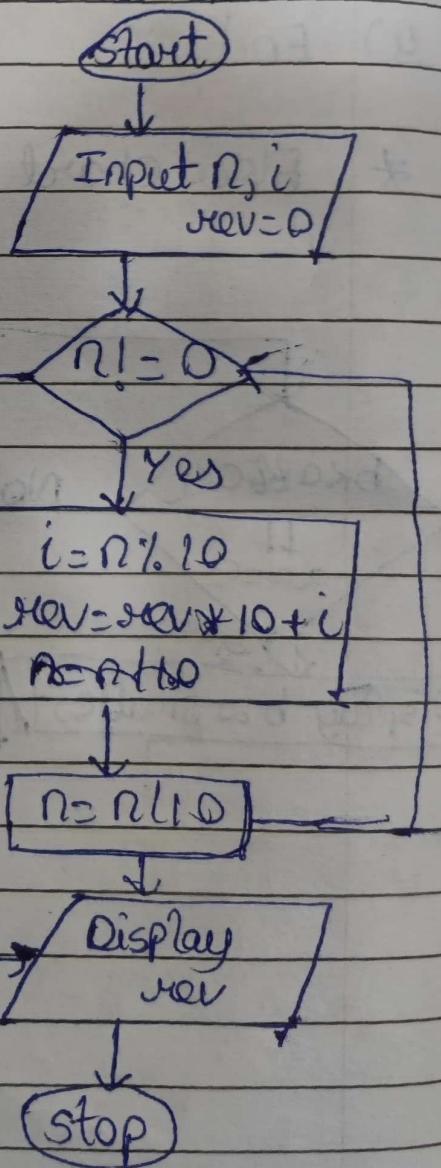
A13 * Algo

- 1) Start
- 2) Input $n, i, rev=0$
- 3) while $n \neq 0$
 $i = n \% 10$
 $rev = rev * 10 + i$

(Note: $\% 10$ is written as $\% 10$)

- 4) Perform $n = n / 10$ AND goto step 3)
- 5) Display rev

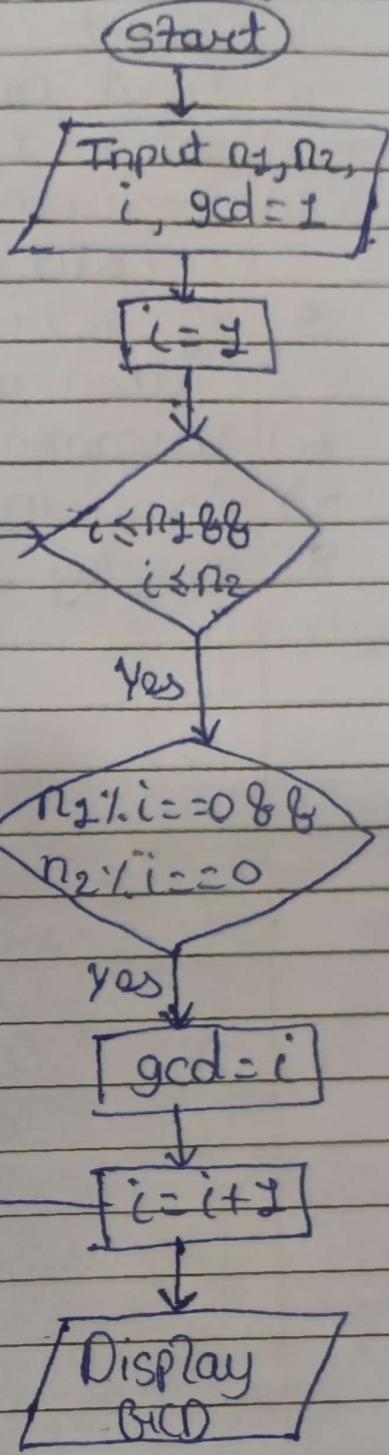
* Flow Chart



Algo.

- 1) Start
- 2) Input $n_1, n_2, i, gcd = 1$
- 3) Set $i = 1$
- 4) check condition:
 $i \leq n_1 \text{ AND } i \leq n_2$
 if ($n_1 \% i == 0 \text{ AND } n_2 \% i == 0$)
 then $gcd = i$
- 5) Increment i AND goto 4)
- 6) Display gcd

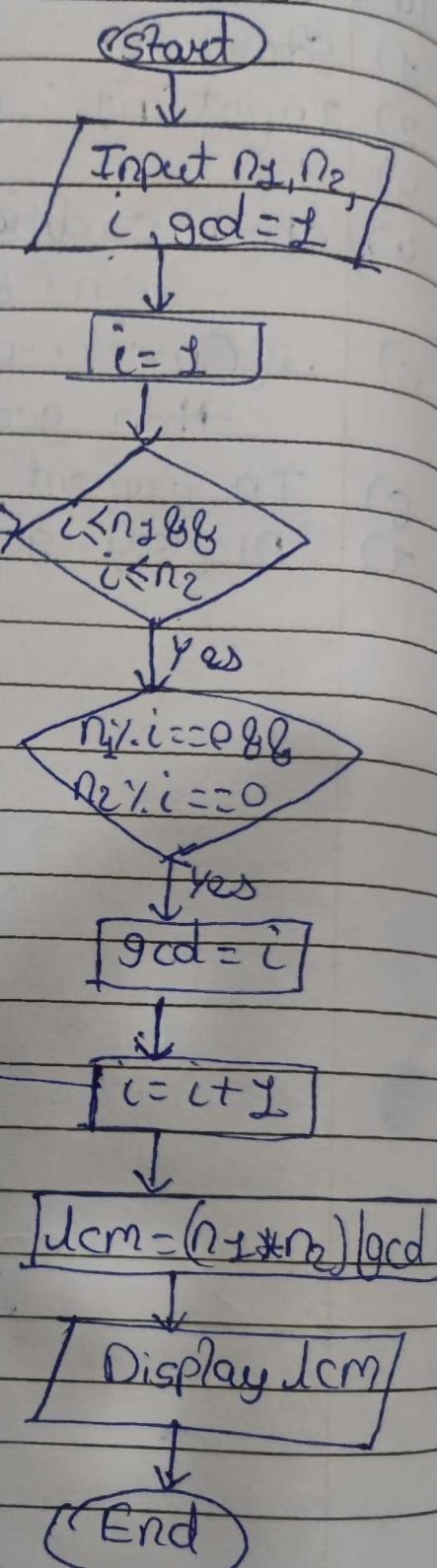
* Flowchart



A15 * Algo

- 1) Start
- 2) Input $n_1, n_2, gcd = 1$
- 3) Set $i = 1$
- 4) Check condition:
 $i \leq n_1 \text{ AND } i \leq n_2$
- 5) If ($n_1 \% i == 0 \text{ AND } n_2 \% i == 0$)
then $gcd = i$
- 6) Increment i and goto 4)
- 7) $Jcm = (n_1 * n_2) / gcd$
- 8) Display Jcm

* Flowchart



A17 * Algo

- 1) Start
- 2) Input $n, i, \text{rev} = 0, a$
- 3) while $n \neq 0$
 $i = n \% 10$
 $\text{rev} = \text{rev} * 10 + i$

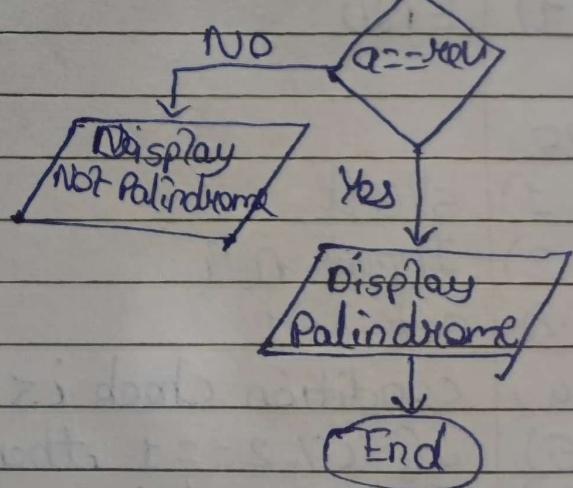
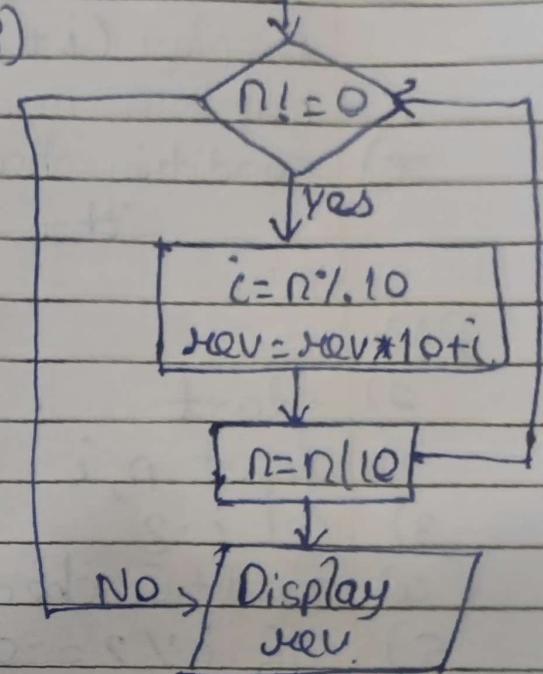
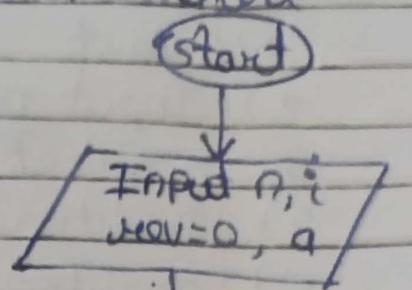
4) Perform $n = n / 10$ AND goto step 3)

5) Display rev display

6) if $a == \text{rev}$ then Palindrome
 else display not palindrome

7) End

* Flowchart



3

A18 Algo

- 1) Start
- 2) Input number
- 3) Cond. Set i=2
- 4) condition check $i < \text{number}$
- 5) condition check ($\text{number} \% i = 0$)
Display ($i + " "$)
- 6) $\text{number} = \text{number} / i$
- 7) condition check $i >= 2$. If $\text{number} \geq 2$
then display number.

A19

- 1) Start
- 2) Input n, i
- 3) Set i=2
- 4) condition check $i \leq n$
- 5) if $i \% 2 = 0$ then display i
- 6) Increment i AND goto 4)
- 7) END.

A20

- 1) Start
- 2) Input n, i
- 3) Set i=1
- 4) condition check $i \leq n$
- 5) if $i \% 2 = 1$ then display i
- 6) Increment i AND goto 4)
- 7) End