

Attached with the recording of online session, provided with this post

Last Lecture → input receipt amount until negative then print total we used IF and GOTO

While viewing a pseudo code, repeated execution is not obvious until we reach GOTO <earlier-line-number>

DONE EARLIER → input receipt amount until negative then print total - using GOTO and IF

NOW CONSIDER A SITUATION THAT HAS TWO IF GOTO STATEMENT → employee detail and employee's dependent details

Loop within loop - with IF and GOTO

employee detail and employee's dependent details

Understanding is even more difficult here

NOW input receipt amount until negative then print total - using while

Loop within loop - with while statement

employee detail and employee's dependent
details

EXERCISE QUESTIONS:

- Write pseudocode to enter the numbers till the user wants and at the end it should display the count of positive, negative and zeros entered.
- Write pseudocode to find the octal equivalent of the entered number.
- Write pseudocode to find the range of a set of numbers. Range is the difference between the smallest and biggest number in the list.
- Write pseudocode to print all prime numbers from 1 to 300. (Hint: Use nested loops, break and continue)

- Write pseudocode to read the total number of electricity units consumed by the consumer . The tariff plan for the bill is as follows

Unit Rate/Unit(Rs.)

≤ 100 1.00

> 100 and ≤ 200 2.50

> 200 and ≤ 400 3.00

> 400 4.10

calculate the total bill, the consumer has to pay?

- Write pseudocode to read three numbers and find out the largest among them?
- Write pseudocode to read a number and find out all the odd prime factors of a given number?
- Write pseudocode find out all the prime number between 100 and 200
- Write pseudocode to read a number and check if it is auto morphic or not. If it is automorphic display a proper message on the screen.(A number when multiplied by it self , the resultant number contains

the last digits of the original number)

$$\text{Example } (5)^2 = 25$$

$$(6)^2 = 36$$

$$(25)^2 = 625$$

- Write pseudocode to read an integer number and find out the reverse of the digits? Example:
Number = 1234 result is = 4321
- Write pseudocode to read an integer number and find out the sum of its digits?
- Write pseudocode to read 10 integer numbers from the keyboard and find out the sum and average of all the entered numbers
- Write pseudocode to add first “n” terms of the following series, where n is to be taken from the user: $1/1! + 2/2! + 3/3! + \dots$
- Write pseudocode to find the sum of the following series
$$S = 1 + x + x^2 + x^3 + x^4 + \dots + x^n$$
- Write pseudocode to read two numbers X and Y and find out X^Y . (Do not use built in library function)
- Write pseudocode to print the following series: 1,2,3,4,5,6,7,...10000
- Write pseudocode to print the following series: 2,4,6,8,10...10000
- Write pseudocode to print the following series: 1,3,5,7,9...999
- Write pseudocode to print the following series: 1,5,9,13....999
- Write pseudocode to print the following series: 1,4,9,16....100
- Write pseudocode to print the following series: 1,8,27,64...1000

- Write pseudocode that takes two positive integer numbers from the user and prints all the odd numbers between the two including those limits provided these satisfy the odd-number's criteria.
- Print the series: 9, 16, 21, 24, 25, 24 (Hint: $10-12, 20-22, 30-32 = n*10-n^2$).
- Print the series: 0, 1, 1, 2, 3, 5, 8, 13, 21, 34, 55.
- Input two numbers and check if first is divisible by second.
- In a company if an employee is paid as under :
 - If his basic salary is less than Rs. 1500 then HRA = 10% of basic salary and DA = 90% of basic Salary
 - If his basic salary = or > 1500 then HRA = 500 and DA = 98% of basic salary

Page 3 of

7

Page 4 of 7 - If the basic salary is input by the user calculate the gross salary of the employ

- Calculate the factorial value of user input number by using looping
- Write a function to read three numbers from the keyboard and find out the largest from them?
- Print the following pattern


```
1 2 3 4 5 1 2 3 4 5 1 2 3 4 5
```
- Write a program to print the following pattern


```
1 1 2 1 2 3 1 2 3 4 1 2 3 4 5
```
- Write pseudocode to print the following pattern


```
1 2 2 3 3 3 4 4 4 4 5 5 5 5 5
```
- Write pseudocode to print the following pattern


```
1 1 0 1 0 1 1 0 1 0 1 0 1 0 1
```
- Write pseudocode to print the following pattern


```
1 0 1 1 0 1 0 1 0 1 1 0 1 0 1
```
- Write pseudocode to print the following pattern


```
1 1 2 2 2 1 3
```

2 3 3 3

- Write pseudocode to print the following pattern

```
1 1 2 1
2 3 1 2
3 4 1 2
3 4 5
```

- Write pseudocode to print the following pattern

```
1 1 2 1 1 2 3 2
1 1 2 3 4 3 2 1
1 2 3 4 5 4 3 2
1
```

- Write pseudocode to print the following pattern

```
1 2 3 4 5 6 7 8 9 10 11 12
13 14 15 16 17 18 19 20
21 22 23 24 25
```

- Write pseudocode to print the following pattern

```
1 2 3 4 5 6 7 8
9 10 11 12 13
14 15
```

- Write pseudocode to print the following pattern

```
1 1 2 1 2 3
1 2 3 4 1 2
3 4 5 1 2 3
4 5 6
```

- Write pseudocode to print the following pattern

```
1 2 3 4 5 6 7 8
9 10 11 12 13
14 15
```

- Write pseudocode to print the following pattern

```
1 1 2 1 1 2 3 2 1
1 2 3 4 3 2 1 1 2
3 4 5 4 3 2 1 1 2
3 4 3 2 1 1 2 3 2
1 1 2 1 1
```

- Write pseudocode to print the following pattern

```
1 2 3 4 5 6 5 4 3 2 1
1 2 3 4 5 5 4 3 2 1
1 2 3 4 4 3 3
1 1 2 3 3 2 1
1 2 2 1 1 1
```

- Print following pattern using nested loops. Attempt all the three parts (a, b and c):

Part (a)

```
*****
*
*****
*
*****
*
```

```
*****
*
```

7

*

Part

(c)

Part

(c)

***** ***** ** *

***** ***** ** *

Page 6 of

- Print following pattern using nested loops

Part

(a)

* * * * * * * * * * * * * * * * Part

(b) * * * * * * * * * * * * * * *

