

MPVM Ganga Gurukulam  
Holiday Homework – 2020  
Sub : Computer Science

*Do the Following programs*

1. Program to find the simple interest based upon number of years. If number of years is more than 12 rate of interest is 10 otherwise 15.
2. Write a program to input any choice and to implement the following. Choice Find
  1. Area of square
  2. Area of rectangle
  3. Area of triangle
3. Write a program to input any number and to find reverse of that number.
4. Write a program to print multiplication of a number given by the user.
5. Write a program to find all prime numbers up to given number.
6. Write for statement to print the following series:
  - a) 10,20,30.....300
  - b) 105,98,91,....7
7. Write the while loop to print the following series:
  - a) 5,10,15,...100
  - b) 100,98,96,...2
8. Write program to input any number and to print all factors of that number.
9. Write a program to input any number and to check whether given number is Armstrong or not.  
(Armstrong 1,153,etc.  $1^3 = 1$  ,  $1^3+5^3+3^3 = 153$ )
10. Write a program to input employee no, name basic pay and to find HRA, DA and netpay.

Basic pay	Hra	Da
>100000	15%	8%
<=100000&>50000	10%	5%
<=50000	5%	3%

What will the output of the following code.

1. Write the output from the following code:

- a) 

```
x = 10
y = 20
if (x>y):
    print x+y
else:
    print x-y
```
- b) 

```
print "Inspirational stories \n for \tChildren"
```
- c) 

```
s = 0
for I in range(10,2,-2):
    s+=I
print "sum=",s
```
- d) 

```
n = 50
i = 5
s = 0
while i<n:
    s+=i
    i+=10
print "i=",i
print "sum=",s
```
- e) 

```
y = 2000
if (i%4==0):
    print "Leap Year"
else:
    print "Not leap year"
```

How many times are the following loop executed?

a) `for a in range(100,10,-10):`

`print a`

b) `i = 100`

`while(i<=200):`

`print i`

`i += 20`

c) `for b in (1,10):`

`print b`

d) `i = 4`

`while (i>=4):`

`print i`

`i + = 10`

f) `i=2`

`while (i<=25)`

`print i`

Rewrite the following for loop into while loop:

a) `for a in range(25,500,25):`

`print a`

b) `for a in range(90,9,-9):`

`print a`

Rewrite the following while loop into for loop:

a) `i = 10`

`while i<250:`

`print i`

`i = i+50`

b) `i=88`

`while(i>=8):`

`print i`

`i- = 8`

Find the errors from the following code.

- a. `T=[a,b,c]`  
`Print T`
- b. `for i in 1 to 100:`  
`print I`
- c. `i=10;`  
`while [i<=n]:`  
`print i`  
`i+=10`
- d. `if (a>b)`  
`print a:`  
`else if (a<b)`  
`print b:`  
`else`  
`print "both are equal"`

Find the output from the following code:

```
L=[100,200,300,400,500]
L1=L[2:4]
print L1
L2=L[1:5]
print L2
L2 .extend(L1)
print L2
```

- # What is the use of List?
- # How Tuples are useful? Explain with example.
- # What do u understand by mutable and immutable types of data?