

Gen BC Joshi APS, Pithoragarh
Holiday Home Work (Computer Science)

Class VI

Create a PowerPoint Presentation on 'Robotics' at least 5 Slides and submit the work to the Subject Teacher via Whatsapp

Class VII

Create a PowerPoint Presentation on 'Robotics' 8-10 Slides and submit the work to the Subject Teacher via Whatsapp

Class VIII

Create a webpage on 'Robotics' using the HTML Code. Include text, images and hyperlinks. The work can be brought to school in Pendrive and Shown in class/Lab

Class IX :

Write the solution of these programs, after executing them on Computer/Mobile Phone.

Write a program to

- (a) To add two numbers
- (b) To Calculate the area of a circle
- (c) To calculate the circumference of a circle
- (d) To calculate the area and perimeter of a rectangle
- (e) To calculate the area of triangle
- (f) To convert the Temp given in Degree Fahrenheit into Degree Celsius
- (g) To convert the Temp given in Degree Celsius into Degree Fahrenheit
- (h) To check whether a number given is even or odd
- (i) To print the square and cube of a number
- (j) To find the greater number between two numbers
- (k) To check whether the first number is divisible by second number or not
- (i) To Check whether a number is positive integer or negative integer.

Class X

Task-1 : Create a document file on any two topics and take the printouts (Maximum pages per topic-2)

Task-2 – Create any Two Spreadsheets containing Data, Formula and Chart and take the printouts

Task-3 _ Create two databases each containing a table Design, Datasheet View, Five Queries and their output and take the printouts.

- 1 Write a python program to accept age of a person from user and check whether he has completed 18 years or more. If yes print 'Eligible for Voting' or else print 'A Minor'
- 2 Write a python program to find the largest of three numbers accepted as input from user.
- 3 What is the output of following code?

```
if(4+5==10):  
    print("True")  
else:  
    print("false")  
print("True")
```
- 4 Following code has endless loop. could you find out why? Suggest a solution.

```
n=10  
answer=1  
while(n>0):  
    answer=answer+n**2  
    n=n+1  
print(answer)
```
- 5 Write a python program to calculate factorial of a number
- 6 What is entry controlled loop?
- 7 Write the syntax of if elif statement, while loop and for loop
- 8 What are jump statements? Name them.
- 9 What will be the output of the following:

```
m,n=40,20  
while m>n:  
    m = m % 7  
    n = n//2  
print(m,n)
```
- 10 Re-write the following program using while

```
sum = 0
```

```
for x in range(10):
    sum = sum + x**2
print(sum)
sum=sum+x**2
print(sum)
```

11 Write a python program to check whether an input number is prime or not

12 Write a Python program to print multiplication table of a number.

13 Explain the purpose of loop structures in a programming language. Describe the syntax and semantics of one loop structure provided by Python.

14 Re-write the following program after removing errors. Also underline the corrections made.

```
n = 10
_____ ams = 0
for i in (n+1)___
    ams=ams + sqrt(i)
print(sum)
```

15 Write a Python program to print the following pattern

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

16 What is the purpose break statement in python?

17 Find output of following

- for x in range(5):
print(x)
- for x in range(3, 6):
print(x)
- for x in range(3, 8, 2):
print(x)
- count = 0
while count < 5:
print(count)

```

        count += 1
e. count = 0
    while True:
        print(count)
        count += 1
    if count >= 5:
        break
f. for x in range(10):
    if x % 2 == 0:
        print(x)

```

Write a program to check whether the year entered by user is a leap year or not.

- 18 Draw a flowchart and also write a python code for solving the following problem:

Find the sum of all odd numbers upto N where N is a positive integer entered by user.

- 19 Write a program to print right triangle using "*"

Example: If the user inputs 5

```

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

```

20. Find o/p of the following python code:

```

x,x = 4,7
y,y = x+7,x-7
x,y=y-x,x+y
print(x,y)

```

21. Predict the output:

```

x,y=7,2
x,y,x=x+1,y+3,x+10
print(x,y)

```

22. find out the error:

a) x=24

4=x

b) else=21-5

```
c) c=input("enter number")
   num=c*2
   print(num)
```

23. What will be returned by python as result of following statements?
a) >>type(0) b) >>type(int(0)) c) >>type(int('0')) d) >>type(1.0) e) type(3/2)
f) >> type('0')
24. Identify which one is an invalid identifier and why?
a) float b) this variable c) unit@price d) !taylor d) marks
25. What is Dynamic type binding feature of python?
26. "Comments are useful and easy way to enhance readability and understanding of a program".
Elaborate with examples