

Sample Question

Class -XI

Subject: Informatics Practices

General Instructions:

1. All questions are compulsory.
2. Programming Language : Python

Q1(a) 1Gigabyte=..... KB

- (b) What is an operating System? Give one Example of Operating System.
- (c) Differentiate between compiler and interpreter.
- (d) What do you understand by ASCII code? Write ASCII code of 'A' and 'a'.

Q2(a) Is python an object oriented Language?

- (b) What will be the output of the following?
`print(len(str(19/4)))`
- (c) Python is a free and open source language. Comment on it.
- (d) Differentiate between interactive mode and script mode.
- (e) Find out the output of the following script
`x,y =30,40`
`y,x,y=x,y+10,x+10`
`print("x=",x,"y=",y)`
- (f) Which of the following can be used as valid variable identifier(s) in Python? Justify your answer
(i) Class (ii) import (iii) Sum# (iv) _Data

Q3(a) Write the corresponding Python expression for the following mathematical expressions :

- (i) $a^2 + b^2 + c^2$ (ii) $2 - ye^{2y} + 4y$

- (b) Write a program to enter length and breadth of a rectangle and calculate its area?
- (c) What is keyword? How the keywords are different from identifiers?
- (d) What are Data types? What are python's built-in data types?
- (e) What is comment? How many types of comments available in python? Give Example for each.

Q4(a) Evaluate the following expression with precedence of operator and find the value of x.

$$x=(2*5)/2+4-2*9//2$$

- (b) Find out the output if a=14,
b=4.i)a/b ii)a//b iii)a%b
iv)a==b
- (c) Write a python script to print middle digit of given three digit number?(Example enter number is 458 , Middle no is 5)
- (d) Write python code to find absolute value of a number entered by user.
- (e) What are mutable and immutable types? Give Examples for each?

Q5(a) Draw a flowchart to find whether the given number is even or odd?

- (b) What is infinite loop? Explain with example
- (c) What is Operator? How many types of operator using in python?

- Q6(a) Re-write the following code using while loop:

```
for a in range (4,20,2):
    print(a)
```
- (b) What is the role of **else** clause in **if..elif** and in **loop construct**? Can you differentiate the use of else in both case with example?
- (c) What will be the difference in outputs of the following code fragments:
- | | |
|-------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|
| <p>(a) <pre>for i in range(1,16): if i % 3 == 0: print (i, end="-")</pre></p> | <p>(b) <pre>for i in [1,16]: if i % 3 == 0: print (i, end="-")</pre></p> |
|-------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|
- (e) Write a program to find the factorial of a number entered by user.
- Q7(a) What is the output of following code :
- ```
L1=[10,20,[33,44],67,[55,66,[88,99]]]
print(L1[2])
print(L1[3])
print(L1[2][1])
print(L1[4][2][1])
```
- (b) Write a program to search an element in a given list.
- (c) Difference between following:
1. append() and Extend()
  2. remove() and pop()

### SAMPLE PAPER – III

Q1: Find the output produced by these –

(a)  $8//8$  (b) `bool(float('0.0'))`

Q2: Differentiate between static RAM and dynamic RAM.

Q3: How many times the loop will execute?

```
i=4
while(i<25):
 print i
 i+=4
```

Q4: Rewrite the code using for loop .

```
i=10
while(i<26):
 print i
 i+=2
```

Q5. Remove the error and rewrite the code:-

```
num=int(input("enter an integer:"));
if num%2=0:
 print("num is even")
else
 print("num is odd")
```

Q6: Predict output:

```
word='aeiouabcd'
print (word[:3]+word[3:])
```

Q7. Write a program to check whether a number is negative or positive or zero.

Q8. Write a program to input any number and to find reverse of that number.

Q9. Differentiate between `isalpha()` and `isalnum()`.

Q10. Explain mobile processor.

Q11. Write a program to check whether the string is a palindrome or not.

Q12. Write a program to input any number and to print all natural numbers up to given number.

### SAMPLE PAPER - III

1. What is Cache Memory? How is it Different From the primary memory?

2. Define CPU and its parts.

3. Write short notes on following:

a. Booting

b. Track & Sector

c. Impact Printer

d. Function of Operating System

4. What is IDE?

5. Python is an interpreted language. Justify.

6. Differentiate between interactive mode and script mode.

7. What will be the output of the following?

(A)

```
a,b,c=9,12,3
```

```
x=a-b/3+c*2-1
```

```
y=a-b/(3+c)*(2-1)
```

```
z=a-(b/(3+c)*2)-1
```

```
print("x=",x)
```

```
print("y=",y)
```

```
print("z=",z)
```

(B)

```
i,total,sum=1,0,0
```

```
while(i<=10):
```

```
sum=sum+i
```

```
i=i+1
```

```
print(total+sum)
```

8. Cross out the variable names that are not legal in python with suitable reason.

Abc#d ,12abc, \$abc, abc\_12, float, For

9. Differentiate between following..

a. List and Tuple

b. Variable and Literals.

c. Number and String Data Type

d. / and // operator

10. Will the following code produce any result? Justify your answer.

```
X="MyPython"
```

```
Y=2
```

```
Print(x+y)
```

11. Write python code for following.

a. To calculate area of circle.  $5 \times 4$

b. To convert the time given in minutes into hours and minutes.

c. To calculate Division ,percentage and total marks of 5 subject of any student assume that max marks for each subject is 100. And division as per criteria given below

Percentage Division

60 >= First

<60 but >=45 second

<45 but >=33 third

<33 fail

12. What is a module in python language? How you can import these module in your programme.

13. Draw flow chart to calculate factorial of any inputted number.

14. How del () is different from pop()? Write a programme in python to delete all even numbers from a list.