

Bhavan's Tripura Vidyamandir

PA-I Examination 2025-2026

Class:- XII

Subject:- Computer Science With Python(083)

Time:- **2 Hours.**

Total:- **50 Marks**

Name of the student:_____ Roll:-_____ Section:_____

General Instruction:-

- i. This question paper is divided into Four sections A B C and D.
- ii. All questions are compulsory.
- iii. **Section A** : Question no 1 to 18 are very short answer type questions of 1 marks each.
- iv. **Section B** : Question no 19 to 24 are short answer type questions, carrying 2 marks each.
- v. **Section C** : Question no 25 to 29 are long answer type question, carrying 3 marks each.
- vi. **Section D** : Question no 30 Programming & Computational thinking base question 5 marks .
- vii. There is no overall choice in the question paper. However, an internal choice has been provided in a few questions. Only one of the choices in such question has to be attempted.

SECTION A

1. Augmented Assignment operator is:

- a) *= b) += c) ** d) ==

2. What will be the value of the expression? `>>> (2+3)*5/4+(4+6)//2`

- a) 11 b) 14.55 c) 11.25 d) 36.0

3. IDLE full form:

- a) Integrated Development and Learning Engine.
b) Integrated Environment.
c) Integrated Development and Learning Environment.
d) International Development and Learning Environment.

4. What will be the output of the following code snippet?

```
s="hello world"
print(s[-1:-7:-1])
```

- a) dlrow b) dlro c) olleh d) olle

5. What is the output of the following code?

```
a=[13,56,17]
a.append([87])
a.extend([45,67])
```

- a) [13,56,17,[87],45,67] b) [13,56,17,87,45,67]
c) [13,56,17,87,[45,67]] d) [13,56,17,[87],[45,67]]

6. _____ Operator is used for indentation.

7. Which of the following commands will create a list?

- a) `list1=list()` b) `list1=[]` c) `list1=list([1,2,3])` d) All of these

8. Which of the following function header is Correct:

- a) `def fun(x=1,y):` b) `def fun(x=1,y,z=2):`
c) `def fun(x=1,y=1,z=2):` d) `def fun(x=1,y=1,z=2,w):`

9. Find the output: `print (type(type(int)))`

- a) `<class 'type'>` b) `<type'int'>` c) `null` d) `Error`

10. `pow()` function belongs to which library ?

- a) `math` b) `string` c) `random` d) `maths`

11. What will be the output of the given statements:

```
dict={'Dhoni':7, 'Kohli':18, 'Rohit':45}
```

```
print(dict.keys())
```

a) dict_keys(['Dhoni', 'Rohit'])

b) dict_keys(['Dhoni', 'Kohli', 'Rohit'])

c) dict_keys([7,18,45])

d) dict_keys([0,1,2])

12. The _____ of a variable is the area of the program where it may be referenced

a) external

b) global

c) scope

d) local

13. If you want to communicate between functions i.e. calling and called statement, then you should use

a) values

b) arguments

c) return

d) none of the above

14. Write the output of the following: `print(float())`

15. Which type of functions are defined in external files?

a) User-defined

b) Built-in

c) Module

d) None of the above

16. A tuple is an ordered set of immutable heterogeneous elements.

a) True

b) False

Assertions And Reasons:

DIRECTIONS

In the following questions, a statement of Assertion (A) is followed by a statement of Reason(R). Write the correct choice.

a) Both A and R are True and R is the correct explanation of A.

b) Both A and R are True and R is not the correct explanation of A.

c) A is True but R is false (or partly true).

d) A is false (or partly true) but R is True.

e) Both A and R are false or not fully True.

17. **Assertion:** A local variable defined inside a function has local scope in python.

Reason: This means that it can only be accessed and modified from inside the same function.

18. **Assertion:** Lists and Tuples are similar sequence types of python, yet they are two different data types.

Reason: List sequences are mutable and Tuple sequences are immutable.

SECTION B

19. Write the use of the following keywords with example: **(a) def** **(b) return**

20. Differentiate between Local variable and Global variable with example.

21. Define fruitful function and non-fruitful function?

22. Find and write the output of the following Python code:

```
def changer(p,q=10):
```

```
    p=p/q
```

```
    q=p%q
```

```
    print(p,"#",q)
```

```
    return p
```

```
a=200
```

```
b=20
```

```
a=changer(a,b)
```

```
print(a,"$",b)
a=changer(a)
print(a,"$",b)
```

23. What will be the output for the below code snippet?

```
def div(lst,n):
    for i in range(0,n):
        if lst[i]%5==0:
            lst[i]+=5
        else:
            lst[i]=lst[i]//2
lt=[45,20,23,54,5]
div(lt, len(lt))
for i in lt:
    print(i,end='#')
```

24. Sonia has to travel a distance of 450km by car. From her experience she knows that she will be travelling at a certain average speed. Write a python code to find out how much time will she take to cover the distance?

SECTION C

25. What is an error? Name any two compile time errors?

26. What is the use of global keyword? What are the various types of function parameters?

27. What possible output(s) are expected to be displayed on screen at the time of execution of the following code? Also specify the maximum and minimum value that can be assigned to variable X.

```
import random
L=[10,7,21]
X=random.randint(1,2)
for i in range(X):
    Y=random.randint(1,X)
print(L[Y],"$",end=" ")
```

28. What are keyword arguments? Differentiate between built-in functions and user defined functions?

29. a) Trace the following code and predict output produced by it.

[1.5 + 1.5]

```
1. def increment(x):
2.     z=45
3.     x=x+1
4.     return x
5. #main
6. y=3
7. print(y)
8. y=increment(y)
9. print(y)
10. q=77
11. print(q)
12. increment(q)
13. print(q)
14. print(x)
15. print(z)
```

b) Trace the following code and predict output produced by it.

```
1. def power(b,p):
2.     y = b**p
3.     return y
4. def calcSq(x):
5.     a= power(x,2)
6.     return a
7. n= 5
8. result= calcSq(n) + power(3,3)
9. print (result)
```

SECTION D

30. What are the outputs of the following codes:

[2 + 2 + 1]

a) `def Execute(M):`
 `if M%3==0:`
 `return M*3`
 `else:`
 `return M+10;`
`def Output(B=2):`
 `for T in range (0,B):`
 `print(Execute(T) , "*" , end="")`
 `print()`
`Output(4)`
`Output()`
`Output(3)`

b) `def makenew(mystr):`
 `newstr = " "`
 `count = 0`
 `for i in mystr:`
 `if count%2 ==0:`
 `newstr = newstr+i.lower()`
 `else:`
 `if i.islower():`
 `newstr = newstr+i.upper()`
 `else:`
 `newstr = newstr+i`
 `count +=1`
 `newstr = newstr+mystr[:3]`
 `print ("The new string is :", newstr)`
`makenew("bttvMEXAMs@2025")`

c) Find the errors in the following code fragments and write the correct code.

(i) Underline the corrections. **(ii)** Write the reasons/error next to it in comment form.

```
Function f1(b)
    If b>0 then:
        return "positive"
    Else return "Not positive"
m=int(input("Enter a Number:"))
msg=f1()
print(msg)
```