

Bhavan's Tripura Vidyamandir

PA-I Examination 2024-2025

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. Which of the following is an invalid identifier?
a) none b) address c) Name d) pass
2. What will be the value of the expression? `>>> 16-(4+2)*5+2**3*4`
a) 54 b) 18 c) 32 d) 46
3. Which of the following forces an expression to be converted into specific type?
a) Implicit type casting b) Mutable type casting
c) Immutable type casting d) Explicit type casting
4. If `l=[11,22,33,44]`, then output of `print(len(l))` will be
a) 4 b) 3 c) 8 d) 6
5. Select all options that print. **hello-how-are-you**
a) `print('hello' + '-' + 'how' + '-' + 'are' + 'you')`
b) `print('hello', 'how', 'are', 'you' + '-' * 4)`
c) `print('hello', 'how', 'are', 'you')`
d) `print('hello-' + 'how-are-you')`
6. A token is also called a _____.
7. Which of the following method is used to delete element from the list?
a) `del()` b) `delete()` c) `pop()` 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(pow(5,4,9))`
a) 7 b)4 c)0 d) error
10. `pow()` function belongs to which library ?
a) math b) string c) random d) maths
11. What is returned by `int(math.pow(3, 2))`?
a) 6 b) 9 c) error, third argument required d) error, too many arguments
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. How many argument(s) a function can receive

- a) Only one b) Only more than one c) 0 or many d) At least one

16. Value returning functions should be generally called from inside of an expression.

- 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 Sample Python String """` is a valid python string.

Reason: Triple Quotation marks are not valid in Python.

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. What is the difference between a Keyword and Identifier?

20. There are two types of else clauses in python. What are these two types of else clauses?

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. What is the difference between arguments and parameters?

Section C

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

26. What is a Global variable? 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("btvmEXAMs@2024")
```

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.

```
90 = A
    for Y in range(0, A)
        IF Y%4== 0
        Print(Y *4)
Else:
    print (Y + 3)
```

-----All the Best-----