

MODEL QUARTERLY EXAMINATION

CLASS : 12

TYPE: B

MARKS : 70

SUBJECT: COMPUTER SCIENCE

TIME : 3 HRS

I. CHOOSE THE CORRECT ANSWER:
15 X 1 = 15

1. Which of the following is a unit of code that is often defined within a greater code structure?
(A) Subroutines (B) Function (C) Files (D) Modules
2. The functions which cause side effects to the arguments passed are called
(A) Impure function (B) Partial Functions
(C) Dynamic Functions (D) Pure functions
3. The data structure which is a mutable ordered sequence of elements is called
(A) Built in (B) List (C) Tuple (D) Derived data
4. Containers for mapping names of variables to objects is called
(A) Scope (B) Mapping (C) Binding (D) Namespaces
5. The process of subdividing a computer program into separate sub-programs is called
(A) Procedural Programming (B) Modular programming
(C) Event Driven Programming (D) Object oriented Programming
6. Which of the following is used to describe the worst case of an algorithm?
(A) Big A (B) Big S (C) Big W (D) Big O
7. If a problem can be broken into subproblems which are reused several times, the problem possesses which property?
(A) Overlapping subproblems (B) Optimal substructure
(C) Memoization (D) Greedy
8. Which of the following character is used to give comments in Python Program ?
(A) # (B) & (C) @ (D) \$
9. What is the output of the following snippet?

```
i=1
while True:
    if i%3==0:
        break
    print(i,end=' ')
    i +=1
```

(A) 12 (B) 123 (C) 1234 (D) 124
10. Which amongst this is not a jump statement ?
(A) for (B) pass (C) continue (D) break



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11. In which arguments the correct positional order is passed to a function?
(A) Required (B) Keyword (C) Default (D) Variable-length
12. Strings in python:
(A) Changeable (B) Mutable (C) Immutable (D) flexible
13. If List=[10,20,30,40,50] then List[2]=35 will result
(A) [35,10,20,30,40,50] (B) [10,20,30,40,50,35]
(C) [10,20,35,40,50] (D) [10,35,30,40,50]
14. What will be the result of the following Python code?
S=[x**3 for x in range(5)]
print(S)
(A) [0,1,6,9,12] (B) [0,1,8,27,64] (C) [1,6,9,12,15] (D) [3,6,9,12,15]
15. Which of the following class declaration is correct?
(A) class class_name (B) class class_name<>
(C) class class_name: (D) class class_name[]

II. Answer the following questions: (Any 6)

Q.No:24 Compulsory

6 X 2 = 12

16. Differentiate interface and implementation.
17. What is a Tuple? Give an example.
18. What is a Tuple? Give an example.
19. What is Sorting?
20. What are the different operators that can be used in Python?
21. Write note on break statement.
22. Define global scope.
23. What is class?
24. What will be the output of the following python code?
str1 = "Thanks"
print(str1*4)

III. Answer the following questions: (Any 6)

Q.No:33 Compulsory

6 X 3 = 18

25. What are the different ways to access the elements of a list. Give example.
26. Define Enclosed scope with an example.
27. What do you understand by Dynamic programming?
28. What are string literals? Explain.
29. Write the syntax of while loop.
30. Differentiate ceil() and floor() function.
31. What is the use of format()? Give an example.



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32. Explain the difference between del and clear() in dictionary with an example.

33. What is the output of the following program?

```
class Greeting:
    def __init__(self, name):
        self.__name = name
    def display(self):
        print("Welcome ", self.__name)
obj=Greeting('to Python Program')
obj.display()
```

IV. Answer in Detail:

5 X 5 = 25

34. What is a List? Why List can be called as Pairs. Explain with suitable example. (OR)

Write any Five Characteristics of Modules.

35. Explain input() and print() functions with examples. (OR)

Write a detail note on for loop.

36. Explain the scope of variables with an example. (OR)

Explain about string operators in python with suitable example.

37. What the different ways to insert an element in a list. Explain with suitable example. (OR)

Explain about constructor and destructor with suitable example.

38. Write a detail note on if..else..elif statement with suitable example. (OR)

Write the output of the following of the program.

class String:

```
def __init__(self):
    self.upper=0
    self.lower=0
    self.vowel=0
    self.consonant=0
    self.space=0
    self.string=""
def getstr(self):
    self.string=str(input("Enter a String: "))
def count (self):
    for ch in self.string:
        if (ch.isupper()):
            self.upper+=1
```



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```
if (ch.islower()):
    self.lower+=1
if (ch in ('AEIOUaeiou')):
    self.vowel+=1
if (ch.isspace()):
    self.space+=1
self.consonant = self.upper+self.lower - self.vowel
def display(self):
    print("The given string contains...")
    print("%d Uppercase letters"%self.upper)
    print("%d Lowercase letters"%self.lower)
    print("%d Vowels"%self.vowel)
    print("%d Consonants"%self.consonant)
    print("%d Spaces"%self.space)
S = String()
S.getstr()
S.count()
S.display()
```

