

MODEL QUARTERLY EXAMINATION

CLASS : 12

TYPE:A

MARKS : 70

SUBJECT: COMPUTER SCIENCE

TIME : 3 HRS

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

1. The small sections of code that are used to perform a particular task is called
(A) Subroutines (B) Files (C) Pseudo code (D) Modules
2. Which of the following are mandatory to write the type annotations in the function definition?
(A) {} (B) () (C) [] (D) < >
3. The data type whose representation is known are called
(A) Built in data type (B) Derived data type
(C) Concrete data type (D) Abstract data type
4. Which of the following is used in programming languages to map the variable and object?
(A) :: (B) := (C) = (D) ==
5. Which members are accessible from outside the class?
(A) Public members (B) Protected members
(C) Secured members (D) Private members
6. Two main measures for the efficiency of an algorithm are
(A) Processor and memory (B) Complexity and capacity
(C) Time and space (D) Data and space
7. The Θ notation in asymptotic evaluation represents
(A) Base case (B) Average case (C) Worst case (D) NULL case
8. Which of the following is not Logical operator?
(A) and (B) or (C) not (D) Assignment
9. Which statement is generally used as a placeholder?
(A) continue (B) break (C) pass (D) goto
10. Which of the following is known as definite loop?
(A) do..while (B) while (C) for (D) if..elif
11. Which of the following keyword is used to exit a function block?
(A) define (B) return (C) finally (D) def
12. Which of the following operator is used for concatenation?
(A) + (B) & (C) * (D) =
13. If List=[17,23,41,10] then List.extend([32,56]) will result
(A) [32,56,17,23,41,10] (B) [56,32,17,23,41,10]
(C) [17,23,41,10,32,56] (D) [41,32,56,23,17,10]
14. What is the use of type() function in python?
(A) To create a Tuple
(B) To know the type of an element in tuple.



T. THIRUMALAI, M.SC(CS), B.ED.,
 Cell: 9750827717, 7010154722
 thirumalaibca.46@gmail.com

(C) To know the data type of python object.

(D) To create a list.

15. Which of the following method is used as destructor?

(A) `__init__()` (B) `__dest__()` (C) `__rem__()` (D) `__del__()`

II. Answer the following questions: (Any 6)

Q.No:24 Compulsory

6 X 2 = 12

16. What is a subroutine?

17. Differentiate constructors and selectors.

18. What do you mean by Namespaces?

19. What is searching? Write its types.

20. What are the different modes that can be used to test Python Program?

21. Write is the syntax of if..else statement

22. Write the different types of function.

23. What is instantiation?

24. What will be the value of S in following python code?

```
List1=[2,4,6,8,10[1,3,5,7,9]]
```

```
S=len(List1)
```

```
print(S)
```

III. Answer the following questions: (Any 6)

Q.No:33 Compulsory

6 X 3 = 18

25. Differentiate Concrete data type and abstract datatype.

26. Why access control is required?

27. Discuss about Algorithmic complexity and its types.

28. Explain Ternary operator with examples.

29. List the differences between break and continue statements.

30. What is composition in functions?

31. Write a note about count() function in python.

32. What are class members? How do you define it?

33. What will be the output of the following code?

```
list = [2**x for x in range(1,11,2)]
```

```
print(list)
```



T. THIRUMALAI, M.SC(CS), B.ED.,

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thirumalaibca.46@gmail.com

IV. Answer in Detail:

5 X 5 = 25

34. Explain with example Pure and impure functions. (OR)

Explain the types of scopes for variable or LEGB rule with example.

35. Describe in detail the procedure Script mode programming. (OR)

Write a program to display all 3 digit odd numbers.

36. Explain the different types of function with an example. (OR)
Explain about string operators in python with suitable example.
37. What is the purpose of range()? Explain with an 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
            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()
```



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