

Class : 12Register
Number**COMMON QUARTERLY EXAMINATION-2024-25**

Time Allowed : 3.00 Hours]

COMPUTER SCIENCE

[Max. Marks : 70

PART - I

Note : i) All the questions.

15X1=15

ii) Choose the most appropriate answer from the given four alternatives and write the option code and the corresponding answer.

- The small sections of code that are used to perform a particular task is called
(a) Subroutines (b) Files (c) Pseudo code (d) Modules
- The functions which will give exact result when same arguments are passed are called
(a) Impure functions (b) Partial Functions
(c) Dynamic Functions (d) Pure functions
- Which of the following functions that retrieve information from the data type?
(a) Constructors (b) Selectors (c) Recursive (d) Nested
- Containers for mapping names of variables to objects is called
(a) Scope (b) Mapping (c) Binding (d) Namespaces
- Which of the following members of a class can be handled only from within the class?
(a) Public members (b) Protected members
(c) Secured members (d) Private members
- 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
- The Python prompt indicates that Interpreter is ready to accept instruction.
(a) >>> (b) <<< (c) # (d) <<
- What is the output of the following snippet?

```
i=1
while True:
    if i%4 ==0:
        break
    print(i,end="")
    i +=1
```

(a) 12 (b) 123 (c) 1234 (d) 124
- Which of the following keyword is used to begin the function block?
(a) define (b) for (c) finally (d) def
- Which of the following is the output of the following python code?

```
str1="TamilNadu"
print(str1[::-2])
```

(a) Tamilnadu (b) Tmlau (c) udanlimaT (d) udaNlimaT
- Which of the following function is used to count the number of elements in a list?
(a) count() (b) find() (c) len() (d) index()
- Which of the following Python function can be used to add more than one element within an existing list?
(a) append() (b) append_more()
(c) extend() (d) more()
- Class members are accessed through which operator?
(a) & (b) . (c) # (d) %
- Which of the following is the output of the following python code?

```
print (pow(2*2,2))
```

(a) 2 (b) 4 (c) 8 (d) 16

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15. Which of the following key is used to execute the python program?

(a) F1

(b) F4

(c) F8

(d) F5

PART - II

II. Answer any 6 of Questions. Q.No 24 is compulsory.

6x2=12

16. What is a Subroutine?
17. What is a Pair? Give an example.
18. What is Mapping?
19. What is Sorting?
20. Write short notes on Tokens.
21. Define Control Structure.
22. What is Function?
23. Write a python Program to find the length of a String.
24. What will be the value of x in following python code?

```
List1=[2,4,6,[1,3,5]]
```

```
x=len(List1)
```

PART - III

III. Answer any 6 of Questions. Q.No 33 is compulsory.

6x3=18

25. Differentiate Pure and Impure function.
26. Differentiate Concrete data type and Abstract datatype.
27. Why access Control is required?
28. Write a note on Asymptotic notation.
29. Explain Ternary operator with examples.
30. Write the syntax of While loop.
31. Write a Python code to check whether a given year is leap year or not.
32. What are class members? How do you define it?
33. What will be the Output of the following code:
Dict = { x : 2 * x for x in range(1,10)}

PART - IV

IV. Answer all the Questions.

5x5=25

34. (a) What are called Parameters and write a note on:
 - (i) Parameter without Type
 - (ii) Parameter with Type

(OR)

(b) What is a List? Why List can be called as Pairs. Explain with suitable example
35. (a) Explain the types of scopes for variable or LEGB rule with example.

(OR)

(b) Explain the Bubble sort algorithm with example.
36. (a) Explain input() and print() functions with examples.

(OR)

(b) Explain the different Set Operations supported by python with suitable example.
37. (a) Write a program to display all 3 digit odd numbers.

(OR)

(b) Explain the following Built-in Functions:

 - (i) id()
 - (ii) abs()
 - (iii) round()
 - (iv) min()
 - (v) sum()
38. (a) Explain about String Operators in python with suitable example.

(OR)

(b) Explain about Constructor and Destructor with suitable example.

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