

COMMON QUARTERLY EXAMINATION-2024-25

Time Allowed : 3.00 Hours]

COMPUTER SCIENCE

PART - I

[Max. Marks : 70

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 values which are passed to a function definition are called
(a) Arguments (b) Subroutines
(c) Function (d) Definition
- The data type whose representation is unknown are called
(a) Built in datatype (b) Derived datatype
(c) Concrete datatype (d) Abstract datatype
- The members that are accessible from within the class and are also available to its sub classes is called
(a) Public members (b) Protected members
(c) Secured members (d) Private members
- Which of the following is used in programming languages to map the variable and object?
(a) :: (b) := (c) = (d) ==
- The ~ notation in asymptotic evaluation represents
(a) Base case (b) Average case (c) Worst case (d) NULL case
- The Python prompt indicates that Interpreter is ready to accept instruction.
(a) >>> (b) <<< (c) # (d) <<
- Which of the following character is used to give comments in Python Program?
(a) # (b) & (c) @ (d) \$
- Which amongst this is not a jump statement?
(a) for (b) pass (c) continue (d) break
- for x in range (2,10, 2):
 print (x, end=' ')
(a) 2 4 6 8 10 (b) 4 6 8 10 (c) 2 4 6 8 (d) 2 10 2
- Which function is called anonymous un-named function
(a) Lambda (b) Recursion (c) Function (d) define
- Which of the following keyword is used to begin the function block?
(a) define (b) for (c) finally (d) def
- Which of the following operator is used for concatenation?
(a) + (b) & (c) * (d) =
- Strings in python:
(a) Changeable (b) Mutable (c) Immutable (d) flexible
- Let list1=[2,4,6,8,10], then print(List1[-2]) will result in
(a) 10 (b) 8 (c) 4 (d) 6
- The process of creating an object is called as:
(a) Constructor (b) Destructor (c) Initialize (d) Instantiation

Part - II

II. Answer any 6 of the following: Q.No 24 is compulsory.

6×2=12

- What is Abstract Data Type?
- What do you mean by Namespaces?
- What is Searching? Write its types.
- Find the output.
a, b = 30, 20
m = a if a < b else b
print ("The value of m = ", m)
- Write note on range () in loop.
- Find the output for the following Python Code.
y=-23.2
s= True
print('x = ', abs(x))
print('s = ', type(s))

22. What will be the output of the following Python Code?

```
str1 = "EMIS"  
print(str1*3)
```

23. Differentiate del with Remove() Function of List.

24. Find the output

```
>>> (x, y, z, p) = (2**2, 5/3+4, 15%2, 34>65)  
>>> print(x, y, z, p)
```

Part - III

III. Answer any 6 of the following: Q.No 33 is compulsory.

6×3=18

25. Differentiate Pure and Impure Function.

26. Define Local scope with an example.

27. Discuss about Algorithmic complexity and its types.

28. Explain Ternary operator with examples.

29. Find the output.

```
x=10  
while (x<=15):  
    print (x, end='\t')  
    x=x+1  
else:  
    print ("\n Value of x when the loop exit ", x)
```

30. Differentiate Ceil() and Floor() Function?

31. Write a Python code to check whether a given year is leap year or not.

32. Write a Python program to display the given pattern

```
COMPUTER  
COMPUTE  
COMPUT  
COMPU  
COMP  
COM  
CO  
C
```

33. >>> A="tamilnadu"

>>> print(len(A))

>>> print(A.upper())

>>> A.isalpha()

Part - IV

IV. Answer all questions:

5×5=25

34. (a) What are called Parameters and write a note on

(i) Parameter without Type

(ii) Parameter with Type.

(OR)

(b) How will you facilitate data abstraction. Explain it with suitable example

35. (a) Write any Five Characteristics of Modules.

(OR)

(b) Explain the Bubble Sort Algorithm with example.

36. (a) Explain input() and print() functions with examples.

(OR)

(b) Explain the following built-in functions.

(i) id()

(ii) chr()

(iii) round()

(iv) type()

(v) pow()

37. (a) Using if...elif...else statement check Smallest of Three numbers.

(OR)

(b) Explain about String Operators in Python with suitable example.

38. (a) Explain the different Set Operations supported by python with suitable example.

(OR)

(b) Write the Output for the following Snippet.

```
>>> Tup1 = (12, 78, 91, "Tamil", "Telugu", 3.14, 69.48)
```

(i) print(Tup1)

(ii) print(Tup1[2:5])

(iii) print(Tup1[:5])

(iv) print(Tup1[4:])

(v) print(Tup1[:])