

FM

**FIRST MID TERM TEST - 2023**

Time : 1.30 Hrs

**12**-Std**COMPUTER SCIENCE**

Marks : 35

**I Choose the correct answer :****5 x 1 = 5**

1. Which of the following is a distinct syntactic block ?  
a) Subroutines      b) Definition      c) Function      d) Modules
2. Which of the following allow to name the various parts of a multi-item object ?  
a) Tuples      b) Lists      c) Classes      d) CDT
3. Which of the following is not the example of modules ?  
a) Procedures      b) Subroutines      c) Class      d) Functions
4. Theoretical performance analysis of an algorithm is called  
a) Priori estimate      b) Posteriori testing      c) Space factor      d) Time Factor
5. Which key is pressed to execute Python script ?  
a) F5      b) F2      c) F1      d) F4

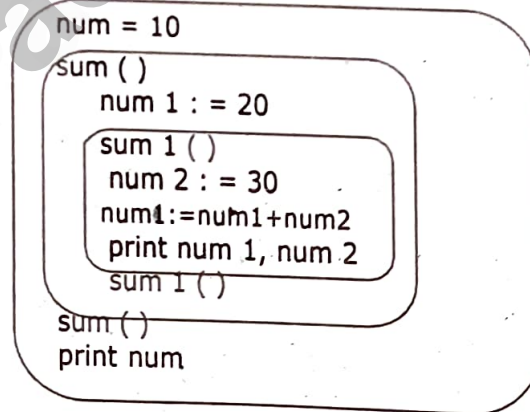
**II Answer any Four questions and Question number 11 is compulsory : 4x2= 8**

6. What is Pure function ? Give an example.
7. What is Abstract Data type (ADT) ?
8. What is Enclosed scope ?
9. Define Control structure.
10. What is literal? What are the types of literals?
11. What is Insertion sort ?

**III Answer any Four questions and question number 17 is compulsory. 4 X 3 = 12**

12. What happens if you modify a variable outside the function ? Give an example.
13. What are the different ways to access the elements of a list. Give example.
14. What do you understand by Dynamic programming ?
15. Write short notes on Escape sequences with examples.
16. Write note on range() in loop.

17. Identify the scope of variable in the following pseudo code.

**IV Answer all the questions.**

18. Identify in the following program.  
let rec sum num:=  
if (num!=0) then return num+sum(num-1)  
else  
return num

**2 X 5 = 10**

- a) Name of the function.
  - b) Identify the statement which tells it is a recursive function
  - c) Name of the argument variable. d) Statement which invoke the function recursively
  - e) Statement which terminates the recursion.
- Explain the Bubble sort algorithm with example. **(OR)**
19. Explain the types of scopes for variable. **(OR)**  
Discuss in detail about Tokens in Python.