

LOTUS MATRIC HR SEC SCHOOL

KAKAPALAYAM, SALEM

STD : XII

I - 50% TEST

MARKS : 90

DATE: 14.09.24

COMPUTER SCIENCE

TIME : 3hrs

I Choose the correct answer:

15 x 1 = 15

1. Which of the following are mandatory to write the type annotations in the function definition?
(A) Curly braces (B) Parentheses (C) Square brackets (D) Indentations
2. Which of the following allow to name the various parts of a multi-item object?
(A) Tuples (B) Lists (C) Classes (D) Quadrats
3. 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
4. In dynamic programming, the technique of storing the previously calculated values is called?
(A) Saving value property (B) Storing value property
(C) Memoization (D) Mapping
5. An algorithm that yields expected output for a valid input is called
(A) algorithmic strategy (B) algorithmic solution
(C) algorithmic analysis (D) best algorithm
6. Which of the following is not a Keyword in Python?
(A) break (B) none (C) continue (D) local
7. Value of A=10,B=3 then X = A if (A/B == 3) else B. What is the value of X?
(A) 3 (B) 10 (C) True (D) False
8. The condition in the if statement should be in the form of
(A) Arithmetic or Relational expression (B) Arithmetic or Logical expression
(C) Relational or Logical expression (D) Arithmetic
9. What is the output of the snippet?
for i in range(10,0,2):
print(i)
(A) 10 9 6 4 2 0 (B) 10 8 6 4 2 (C) 0 2 4 6 8 10 (D) No output
10. Which of the following keyword is used to begin the function block?
(A) define (B) for (C) finally (D) def
11. Which function can take any number of arguments and must return one value in the form of an expression?
(A) Recursive (B) Built in (C) Lambda (D) User defined
12. Strings in python:
(A) Changeable (B) Mutable (C) Immutable (D) flexible
13. Which of the following function is used to count the number of elements in a list?
(A) count() (B) find() (C) len() (D) index()
14. Class members are accessed through which operator?
(A) & (B) . (C) # (D) %
15. Which are the key features of Object Oriented Programming?
(A) Classes (B) Objects (C) Abstraction (D) Both A and B

II Answer any 6 questions: (Q.NO. 24 is compulsory)**6 x 2 = 12**

16. What is a subroutine?
17. Define abstraction. What is abstract data type?
18. What is Mapping?
19. Write the pseudo code for selection sort.
20. What are the different modes that can be used to test Python Program?
21. Write the syntax for if..elif..else statement.
22. What are the main advantages of function?
23. What is String? Give example.
24. Write the output of the following program?

```
divBy4=[ ]
for i in range(21):
    if (i%4==0):
        divBy4.append(i)
print(divBy4)
```

III Answer any 6 questions: (Q.NO. 33 is compulsory)**6 x 3 = 18**

25. What is interface? Mention the characteristics of Interface.
26. Differentiate Concrete data type and abstract data type.
27. Define Local scope with an example.
28. Write a note on Asymptotic notation.
29. Write a note on indentation and comments in Python.
30. Write a program to check whether the given character is a vowel or not.
31. How recursive function works?
32. What are the difference between List and Dictionary?
33. Write the output of the following program?

```
str1="ABCDEFGH"
str2="ate"
for i in str1:
    print ((i+str2),end='\t')
```

IV Answer the following:**5 x 5 = 25**

34. a) Explain with example Pure and impure functions.
(OR)
b) What is a List? Why List can be called as Pairs. Explain with suitable example.
35. a) What is module? Write any Five Characteristics of Modules.
(OR)
b) Explain the characteristics of an algorithm.
36. a) Explain input() and print() functions with examples.
(OR)
b) Explain the different set operations supported by python with suitable example.
37. a) Explain in detail about constructors and destructors in Python.
(OR)
b) Explain about string operators in python with suitable example.
38. a) Explain jump statements in Python.
(OR)
b) Explain different types of function arguments used in Python with an example.

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