Class : 12

Register Number

FIRST REVISION EXAMINATION, JANUARY - 2025

Time Allowed : 3.00 Hours]

COMPUTER SCIENCE
PART - I

[Max. Marks : 70

15X1 = 15

Note : I) Answer all the questions.
     II) Choose the most appropriate answer from the given four alternatives and write the option code and the corresponding answer.

1. Which of the following defines what an object can do?
   (a) Operating System (b) Compiler   (c) Interface   (d) Interpreter

2. Which is a comma-separated sequence of values surrounded with parentheses?
   (a) class   (b) tuple   (c) list   (d) selector

3. Which scope refers to variables defined in current function?
   (a) Local Scope   (b) Global scope   (c) Module scope   (d) Function Scope

4. Binary search also called .... search algorithm.
   (a) Full-interval   (b) Half-interval   (c) Linear-interval   (d) Binary-interval

5. The Python prompt indicates that Interpreter is ready to accept instruction.
   (a) >>>   (b) <<<   (c) #   (d) <<

6. What will be the output of the following python code?
```
for x in range(1,10,2):
    print(x, end=' ')
```
   (a) 1 3 5 7 9   (b) 1 2 4 6 8   (c) 2 4 6 8 10   (d) 1 3 5 7 10

7. Which of the following keyword is used to begin the function block?
   (a) define   (b) for   (c) finally   (d) def

8. Which of the following is the slicing operator?   (a) { }   (b) [ ]   (c) <>   (d) ( )

9. Let setA={3,6,9}, setB={1,3,9}. What will be the result of the following snippet?
   print(setA&setB)   (a) {3,6,9,1,3,9}   (b) {3,9}   (c) {1}   (d) {1,3,6,9}

10. The process of creating an object is called as:
   (a) Constructor   (b) Destructor   (c) Initialize   (d) Instantiation

11. What is the acronym of DBMS?
   (a) DataBase Management Symbol   (b) Database Managing System
   (c) DataBase Management System   (d) DataBasic Management System

12. The command to delete a table including the structure is
   (a) DROP   (b) DELETE   (c) DELETE ALL   (d) ALTER TABLE

13. A CSV file is also known as a ....
   (a) Flat File   (b) 3D File   (c) String File   (d) Random File

14. The module which allows you to interface with the Windows operating system is
   (a) OS module   (b) sys module   (c) csv module   (d) getopt module

15. The most commonly used statement in SQL is
   (a) cursor   (b) select   (c) execute   (d) commit

PART - II

Note: Answer any six questions. Question number 24 is compulsory.   6×2=12

16. Differentiate interface and implementation.   17. What do you mean by Namespaces?

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

19. What will be the output of the following program?
```
def fun():
    for n in range(1,5):
        print(n, end=' ')
print(fun())
```

20. What is set in Python?   21. What is data consistency?

22. What is CSV File?   23. Which method is used to connect a database? Give an example.

24. What will be the output of the following program?
```
lst=[x**2 for x in range(2,10,2)]
print(len(lst))
```

PART - III

Note: Answer any six questions. Question number 33 is compulsory.   6×3=18

25. Explain Ternary operator with examples.

26. Using if..else..elif statement write a suitable program to display largest of 3 numbers.

27. Differentiate ceil( ) and floor( ) function?

28. Write a short note about the followings with suitable example:
   (a) capitalize( )   (b) swapcase( )

29. Debug and rewrite the following Python program, to get the given output:

```
Class Hosting{
    def init__(self, ):
            self.__name=name
    Def display(self)
            print("Welcome to", self.__name)
obj.Hosting("Learn Python")
obj.display
```

Output:

Welcome to Learn Python

30. Write a note on different types of DBMS users

31.

Admno	Name	Age	Gender
101	Velpari	19	M
102	Kabilar	18	M
103	Neelan	17	M
104	Angavai	16	F
105	Sangavai	14	F

For the above given student table, write the query for the followings

(1) To display all the records from the table.

(2) To display Admno, Name and Age of the students whose age between 18 and 19.

(3) To display all the records students in alphabetical order of their names.

32. Mention the difference between fetchone() and fetchmany()

33. Fill in the blank with suitable expression in the given print statement to get the output given below:

print({...................... for x in range(65,69)})

Output: akwaacademy.blogspot.com

{65: 'A', 66: 'B', 67: 'C', 68: 'D'}

PART - IV

Note: Answer all questions.   5×5=25

34. (a) (1) What are called Parameters?

   (2) Write a note on: Parameter without type and Parameter with type.   (OR)

   (b) Discuss about Linear search algorithm.

35. (a) Explain the various operators in Python.   (OR)

   (b) Write a detail note on for loop

36. (a) What is set in Python? Explain the following set operations with suitable example.

   (1) Union   (2) Intersection   (3) Difference   (OR)

   (b) What will be the output of the following Python program.

```
Tup1 = (12, 78, 91, 'T', 'E', 3.14, 69.48)
print(Tup1)
print(Tup1[2:5])
print(Tup1[:5])
print(Tup1[4:])
print(Tup1[:])
```

37. (a) Explain the scope of variables with suitable example.   (OR)

   (b) Consider the following employee table.

   Write SQL commands for the questions (i) to (v).

EMP CODE	NAME	DESIG	PAY	ALLOWANCE
S1001	Hariharan	Supervisor	29000	12000
P1002	Shaji	Operator	10000	5500
P1003	Prasad	Operator	12000	6500
C1004	Manjima	Clerk	8000	4500
M1005	Ratheesh	Mechanic	20000	7000

   (i) To display the details of all employees in descending order of pay.

   (ii) To display all employees whose allowance is between 5000 and 7000.

   (iii) To remove the employees who are mechanic.

   (iv) To add a new row.

   (v) To display the details of all employees who are operators.

38. (a) Write the syntax for getopt() and explain its arguments and return values.   (OR)

   (b) Explain the purpose of the following functions:

   (a) plt.xlabel   (b) plt.ylabel   (c) plt.title   (d) plt.legend()   (e) plt.show()