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**PART - I**

**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) parenthesis c) square brackets d) indentations
2. Which of the following functions that retrieve information from the data type  
a) constructor b) selector c) recursive d) nested
3. Which scope refers to variables defined in current function  
a) local scope b) Global scope c) module scope d) function scope
4. The complexity of Linear search algorithm is  
a)  $O(n)$  b)  $O(\log n)$  c)  $O(n^2)$  d)  $O(\log n)$
5. Which operator is also called as conditional operator  
a) ternary b) relational c) logical d) assignment
6. Which statement is generally used as place holder  
a) continue b) break c) pass d) go to
7. Which function is called anonymous unnamed function  
a) Lambda b) recursion c) function d) define
8. Strings in Python are a) changeable b) mutable c) immutable d) flexible
9. Pick odd one in connection with collection data type  
a) list b) tuple c) dictionary d) loop
10. The process of creating and object is called as  
a) constructor b) destructor c) initialize d) instantiation
11. Who developed ER model a) Chen b) E F Codd c) Chend d) Chand
12. The comment to delete a table is a) drop b) delete c) delete all d) alter table
13. The expansion of CRLF is a) control return and line feed b) carriage return and form feed  
c) control router and line feed d) carriage return and line feed
14. The expansion of API is a) application programming interpreter b) application programming interface  
c) application performing interface d) application programming interlink
15. Which of the following class avoid the duplicate a) distinct b) remove c) where d) group by

**II. Answer any 6 Questions (Q.No.24 is compulsory)****6 x 2 = 12**

16. What is pair? Give an example.
17. What is meant by mapping?
18. Write a note on range() in loop.
19. What is the advantage of declaring a column as "Integer Primary Key"
20. List the general types of data visualization.
21. Write the syntax of getopt() function.
22. What is CSV file?
23. Differentiate compiler and interpreter
24. What will be the output of the following python code.

```
str="COMPUTER SCIENCE"
```

(A) Print(str\*2) (B) print(str[0:5])

**III. Answer any 6 questions (Q.No.33 is Compulsory)****6 x 3 = 18**

25. How recursive function works?
26. Explain ternary operator with example.
27. Differentiate Pure and Impure function.

28. Write short note on DML commands in SQL.
29. What will be the output of the following python code.  
list=[3\*x for x in range(5)]  
print(list)
30. Write any three uses of Data visualization.
31. Differentiate fetchone() and fetchmany()
32. Write note on Unique key constraint.
33. What will be the output of the following python code

```
class hosting:
    def __init__(self,name):
        self.__name=name
    def display(self):
        print("Welcome to", self.__name)
obj=hosting("Python Programming")
obj.display()
```

**IV. Answer all the questions.**

34. Discuss about Binary search algorithm with example.

**(OR)**

Write in brief about Data Abstraction with example.

35. (i) Write a program to display all 3 digit even numbers  
(ii) Write a program to display the following pattern.

```
A
AB
ABC
ABCD
```

**(OR)**

Write about the following built-in function

a) copy() b) count() c) reverse() d) sort()

36. Write the feature of Python over C++

**(OR)**

Explain the various set operations supported by Python with suitable example.

37. Differentiate DBMS and RDBMS

**(OR)**

How to define constructor and destructor in Python? Explain with example.

38. What will be the output of the following python commands.

```
str="Welcome to Python"
(I) print(str)
(II) print(str[10:15])
(III) print(str[:4])
(IV) print(str[11:17:2])
```

**(OR)**

Differentiate Excel file and CSV file.