



# NADAR HR.SEC.SCHOOL, RAJAPALAYAM. COMPUTER SCIENCE – MARCH - 2020



CLASS : 12

Time Allowed : 3.00 Hours

Maximum Marks : 70

## PART - I

Choose the most appropriate answer from the given four alternatives and Write the option code and the corresponding answer.

15 X 1 = 15

1. The function which will give exact result when same arguments are passed are called:
 

(A) Pure functions	(B) Impure functions
(C) Dynamic functions	(D) Partial functions
2. A sequence of immutable objects is called:
 

(A) Derived data	(B) Built in
(C) List	(D) Tuple
3. Which of the following members of a class can be handled only from within the class?
 

(A) Public members	(B) Private members
(C) Protected members	(D) Secured members
4. Two main measures for the efficiency of an algorithm are:
 

(A) Data and Space	(B) Processor and Memory
(C) Complexity and Capacity	(D) Time and Space
5. Expand IDLE:
 

(A) Integrated Design Learning Environment	(B) Insert Development Learning Environment
(C) Integrated Develop Learning Environment	(D) Integrated Development Learning Environment
6. What is the output of the following snippet?  
for i in range(2,10,2):  
print(i,end="")
 

(A) 8 6 4 2	(B) 2 4 6 8 10
(C) 2 4 6 8	(D) 2 4 6
7. Evaluate the following function and write the output.  
x=14.4  
print(math.floor(x))
 

(A) 13	(B) 14
(C) 15	(D) 14.3
8. What will be the output of the following code?  
str"NEW DELHI"  
str[3]-""
 

(A) NEW-DELHI	(B) NE-DELHI
(C) NEW DELHI	(D) NEW-ELHI
9. The keys in Python dictionary is specified by:
 

(A) ;	(B) =
(C) :	(D) +
10. Class members are accessed through which operator?
 

(A) .	(B) &
(C) %	(D) #
11. What symbol is used for SELECT statement ?
 

(A) Ω	(B) σ
(C) π	(D) X
12. The command to delete a table is:
 

(A) DROP	(B) ALTER TABLE
(C) DELETE	(D) DELETE ALL
13. A CSV file is also known as a :
 

(A) Random File	(B) String File
(C) 3D File	(D) Flat File
14. A framework for interfacing Python and C++ is :
 

(A) Ctypes	(B) Boost
(C) SWIG	(D) Cython
15. Which of the following is an organized collection of data ?
 

(A) Records	(B) Information
(C) DBMS	(D) Database



**PART - II****Answer any six questions. Question No. 24 is Compulsory.****6 X 2 = 12**

16. What is a Pair ? Give an example.
17. What do you mean by Namespaces ?
18. What is an Algorithm?
19. Write note on range() in loop.
20. Write categories of SQL commands.
21. Write the expansion of: (i) SWIG (ii) MinGW
22. What is the advantage of declaring a column as "INTEGER PRIMARY KEY"?
23. List the general types of data visualization.
24. What will be the output of the given Python program?  
str="COMPUTER SCIENCE"  
(A) print( str\*2 ) (B) print( str [ 0 : 7 ] )

**PART - III****Answer any six questions. Question No. 33 is compulsory.****6 X 3 = 18**

25. Differentiate pure and impure function
26. Write a note on Asymptotic notation.
27. Explain Ternary operator with example.
28. How recursive function works?
29. What will be the output of the following code ?  
list=[3\*\*x for x in range(5)]  
print(list)
30. Write short notes on TCL commands in SQL
31. What is the difference between reader() and DictReader() function ?
32. Mention the difference between fetchone() and fetchmany().
33. Write the output of the following program.  
class Hosting:  
    def \_\_init\_\_(self,name):  
        self.\_name=name  
    def display (self):  
        print("Welcome to",self.\_name)  
obj=Hosting("Python Programming")  
obj.display()

**PART - IV****Answer all the questions.****5 X 5 = 25**

34. (A) Discuss about Linear Search algorithm with example. (OR)
- (B) Explain input() and print() functions with example.
35. (A) i) Write a program to display all 3 digit even numbers.. (OR)
- ii) Write the output for the following program.  
i=1  
while(i<=6):  
    for j in range(1, i):  
        print(j,end='\t')  
    print(end='\n')  
    i+=1
- (B) Explain the following built-in functions:  
(i) id() (ii) chr() (iii) round() (iv) type() (v) pow()
36. (A) Write the output for the following program. (OR)  
str>Welcome to Python  
a. print(str1)  
b. print(str1[11 : 17])  
c. print(str1[11: 17, 2])  
d. print(str1[: : 4])  
e. print(str1[: - 4])
- (B) How to define constructor and destructor in Python? Explain with example
37. (A) Explain the different set operations supported by Python with suitable example (OR)
- (B) Differentiate DBMS and RDBMS.
38. (A) Write a SQL statement to create a table for employee having any five fields and create a table constraint for the employee table. (OR)
- (B) Write the features of Python over C++.