

12<sup>th</sup> COMPUTER SCIENCE

TIME : 3.00 hrs

MARKS :

70

I. Choose the correct answer:

15x1=15

- The values which are passed to a function definition are called  
(A) Arguments (B) Subroutines (C) Function (D) Definition
- Which members are accessible from outside the class?  
(A) Public members (B) Protected members  
(C) Secured members (D) Private members
- The complexity of linear search algorithm is  
(A) O(n) (B) O(log n) (C) O(n<sup>2</sup>) (D) O(n log n)
- The Python prompt indicates that Interpreter is ready to accept instruction.  
(A) >>> (B) <<< (C) # (D) <<
- Which punctuation should be used in the blank?  
if <condition>\_  
statements-block 1  
else:  
statements-block 2  
(A) ; (B) : (C) :: (D) !
- Pick the correct one to execute the given statement successfully.  
if \_\_\_\_ : print(x, " is a leap year")  
(a) x%2=0 (b) x%4==0 (c) x/4=0 (d) x%4=0
- Which of the following is used as placeholders or replacement fields which get replaced along with format( ) function?  
(a) {} (b) < > (c) ++ (d) ^^
- The keys in Python, dictionary is specified by  
(a) = (b) ; (c) + (d) :
- Which of the following is the private class variable?  
(a) \_\_num (b) ##num (c) \$\$num (d) &&num
- What type of relationship does hierarchical model represents?  
a) one-to-one b) one-to-many c) many-to-one d) many-to-many
- The command to delete a table is  
(A) DROP (B) DELETE (C) DELETE ALL (D) ALTER TABLE

12. 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

13. Importing C++ program in a Python program is called

- (A) wrapping                              (B) Downloading      (C) Interconnecting      (D)

Parsing

14. SQLite falls under which database system?

- (A) Flat file database system              (B) Relational Database system  
(C) Hierarchical database system      (D) Object oriented Database system

15. Identify the right type of chart using the following hints.

Hint 1: This chart is often used to visualize a trend in data over intervals of time.

Hint 2: The line in this type of chart is often drawn chronologically.

- a. Line chart                              b. Bar chart                              c. Pie chart                              d. Scatter

plot

**II. Answer the any6 in the following questions: Q.No:20 is compulsory**

**6x2=12**

16. Differentiate interface and implementation.

17. How Python represents the private and protected Access specifiers?

18. Write short notes on Tokens.

19. Write note on range () in loop

20. Write the syntax of creating a Tuple with n number of elements.

21. What is set in Python?

22. What is the difference between Hierarchical and Network data model?

23. How will you sort more than one column from a csv file? Give an example statement.

24. Which method is used to fetch all rows from the database table?

**III. Answer the any6 in the following questions: Q.No: 27 is compulsory**

**6x3=18**

25. What are the different ways to access the elements of a list. Give example.

26. What is searching? Write its types.

27. Write a program to display

- A
- A B
- A B C
- A B C D
- A B C D E

28. Write a short about the followings with suitable example:

- (a) capitalize( )
- (b) swapcase( )

29. How do define constructor and destructor in Python?

30. What is a constraint? Write short note on Primary key constraint.

31. Differentiate PYTHON and C++

32. What is the use of Where Clause? Give a python statement Using the where clause.

33. Draw the output for the following data visualization plot.

```
import matplotlib.pyplot as plt
plt.bar([1,3,5,7,9],[5,2,7,8,2], label="Example one")
plt.bar([2,4,6,8,10],[8,6,2,5,6], label="Example two", color='g')
plt.legend()
plt.xlabel('bar number')
plt.ylabel('bar height')
plt.title('Epic Graph\nAnother Line! Whoa')
plt.show()
```

**IV. Answer the following:**

**5x5=25**

34. What are called Parameters and write a note on

- (i) Parameter without Type
- (ii) Parameter with Type **(OR)**

Explain the types of scopes for variable or LEGB rule with example.

35. Discuss about Linear search algorithm. **(OR)**

Describe in detail the procedure Script mode programming.

36. Explain the scope of variables with an example. **(OR)**

What the different ways to insert an element in a list. Explain with suitable example.

37. Explain the different operators in Relational algebra with suitable examples.

**(OR)**

What are the components of SQL? Write the commands in each.

38. Write the rules to be followed to format the data in a CSV file. **(OR)**

Write the syntax for getopt() and explain its arguments and return values

Prepared by

M.Poovendiran.,M.Sc.,M.phil.,B.Ed.,PGDCA

Paramveer Matric Hr.Sec School

Pauparapatti,Dharmapuri- 636809.

Ph.No: 9524451124

[www.Padasalai.Net](http://www.Padasalai.Net)