

HSS

HALF YEARLY EXAMINATION - 2024

SALEM

XII - Std

COMPUTER SCIENCE

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Marks : 70

Time : 3.00 Hrs

Part - I

15 X 1 = 15

Answer all the questions :-

- The variables in a function definition are called as
(A) Subroutines (B) Function (C) Definition (D) Parameters
- The data structure which is a mutable ordered sequence of elements is called (A)
Built in (B) List (C) Tuple (D) Derived data
- Containers for mapping names of variables to objects is called
(A) Scope (B) Mapping (C) Binding (D) Namespaces
- From the following sorting algorithms which algorithm needs the minimum number of swaps?
(A) Bubble sort (B) Insertion sort (C) Selection sort (D) All the above
- What is the output for the following code?
a, b = 30, 20
min = a if a < b else b
print(min)
a) 20 b) 30 c) True d) False
- Which statement is generally used as a place holder?
A) continue B) break C) pass D) goto
- Which of the following keyword is used to exit a function block?
(a) define (b) return (c) finally (d) def
- Defining strings with in triple quotes allows creating:
(a) Single line Strings (b) Multiline Strings
(c) Double line Strings (d) Multiple Strings
- Let list1=[2,4,6,8,10], then print(List1[-2]) will result in
(a) 10 (b) 8 (c) 4 (d) 6
- Which of the following method is used as destructor?
(a) __init__() (b) __dest__() (c) __rem__() (d) __del__()
- Who is called Father of Relational Database from the following?
a) Chris Date b) Hugh Darween c) Edgar Frank Codd d) Edgar Frank Cadd
- A CSV file is also known as a
(A) Flat File (B) 3D File (C) String File (D) Random File
- The expansion of API is
(A) Application Programming Interpreter (B) Application Programming Interface
(C) Application Performing Interface (D) Application Programming Interlink
- The most commonly used statement in SQL is
(A) cursor (B) select (C) execute (D) commit
- Which is a python package used for 2D charts?
a) matplotlib.pyplot b) matplotlib.pip
c) matplotlib.numpy d) matplotlib.plt

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PART II**Answer any 6 questions. Question no 24 is compulsory.****6 X 2 = 12**

16. What is a subroutine?
17. What is a scope?
18. What are keywords? List some keywords.
19. What are the main advantages of function?
20. What is class?
21. Write the difference between table constraint and column constraint?
22. What is CSV File?
23. Write the expansion of (i) SWIG (ii) MinGW
24. What is Data Visualization?

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

25. Write any three uses of data visualization
26. Mention the difference between fetchone() and fetchmany()
27. Write a program to display
A
A B
A B C
A B C D
A B C D E
28. How to define constructor and destructor in Python?
29. Differentiate PYTHON and C++
30. Explain Ternary operator with examples
31. Differentiate ceil() and floor() function?
32. List the characteristics of an algorithm.
33. Write a program to check if a number is Positive, Negative or zero.

PART IV**Answer all the questions****5 x 5 = 25**

34. What are called Parameters and write a note on
(i) Parameter without Type (ii) Parameter with Type **(OR)**
Explain the following built-in functions.
(a) id()
(b) chr()
(c) round()
(d) type()
(e) pow()
35. Explain input() and output() functions with example. **(OR)**
Explain Bubble Sort Algorithm with example.
36. Explain the types of scopes for variable or LEGB rule with example. **(OR)**
Explain the different set operations supported by Python with suitable example.
37. Write any 5 features of Python. **(OR)**
Write the different types of constraints and their functions.
38. Differentiate Excel file and CSV file. **(OR)**
Explain the purpose of the following functions:
a. plt.xlabel
b. plt.ylabel
c. plt.title
d. plt.legend()
e. plt.show()