COMMON HALF YEARLY EXAMINATION - 2024

Reg.No.

Standard - XII

COMPUTER SCIENCE

Time: 3.00 hrs.

Marks: 70

Part - I

15×1=15

I. **Choose the correct answer:**

1) The values which are passed to a function definition are called
   a) Arguments   b) Subroutines   c) Function   d) Definition

2) Which of the following is a compound structure?
   a) Pair   b) Triplet   c) Single   d) Quadrat

3) Which algorithm maintains a sorted sub list in the lower positions of the list?
   a) Bubble sort   b) Selection sort   c) Insertion sort   d) Merge sort

4) This symbol is used to print more than one item on a single line.
   a) Semicolon(;)   b) Dollor($)   c) Comma(,)   d) Colon(:)

5) Python provides _____ types of looping constructs.
   a) 2   b) 3   c) 4   d) none

6) Pick the correct one to execute the given statement successfully,
   if ___ : print(x, "is leap year")
   a) x%2 == 0   b) x/2 = 0   c) x%4 == 0   d) x%2 = 0

7) What is stride?
   a) Index value of slide operation   b) Second argument of slice operation
   c) First argument of slice operation   d) Third argument of slice operation

8) Which of the following statement is not correct?
   a) A list is mutable √
   b) The extend() function is used in tuple to add elements in a list
   c) The append() function is used to add an element
   d) A tuple is immutable √

9) Which of the following is the protected class variable?
   a) _ _num   b) ##num   c) _num   d) &&num

10) A table is known as
    a) tuple   b) attribute   c) relation   d) entity

11) Which commands provide definitions for creating table structure, deleting relations, and modifying relation schemas?
    a) DDL   b) DML   c) DCL   d) DQL

12) By default CSV files should open automatically in
    a) Excel   b) Notepad   c) Calc   d) CSV editor

13) Which module of Python helps you to parse (split) command-line options and arguments?
    a) getopt   b) sys   c) OS   d) MinGW

14) Which of the following keyword avoid the duplicate?
    a) Distinct   b) Remove   c) Where   d) Repeat

15) Identify the package manager for installing Python packages, or modules
    a) Matplotlib   b) PIP   c) plt.show()   d) Python package

Part - II

II. Answer any 6 questions. Question no. 24 is compulsory: 6×2=12

16) What is subroutine?
17) What is mapping?
18) Write the command used to invoke Python IDLE from Windows OS.
19) What is String?
20) Write the syntax for creating objects in python.
21) Write the difference between table constraint and column constraint.
22) What is the use of cd command? Give an example.
23) List the general types of data visualization.
24) Write a python program to print single digit even number using for loop.

Part - III

III. Answer any 6 questions. Question no. 33 is compulsory: 6×3=18

25) Identify which of the following are constructors and selectors?
   (a) N1:=number()   (b) acceptnum(n1)   (c) displaynum(n1)
   (d) eval(a/b)   (e) display()
   (f) x,y:=makeslope(m), makeslope(n)
26) Write a note on asymptotic notation.
27) What are the assignment operators that can be used in Python?
28) What is composition in functions?
29) Write a short note about sort().
30) Write any three advantages of RDBMS.
31) Write a note on open() function of python. What is the difference between the two methods?
32) What is the use of where clause? Give a python statement using the where clause.
33) Explain the purpose of the following functions:
   (a) plt.xlabel   (b) plt.ylabel   (c) plt.title

Part - IV

IV. Answer in detail: 5×5=25

34) Explain with an example interface and implementation.
                           (OR)
   Explain the types of scopes for variable.
35) Describe in detail the procedure script mode programming.
                           (OR)
   Write a program to display all 5 digit even numbers.
36) EXplain recursive function with an example.
                           (OR)
   What is the purpose of range ()? Explain with an example.
37) Explain the different types of data model.
                           (OR)
   Write the rules to be followed to format the data in a CSV file.
38) What is the purpose of sys, os, and getopt module in Python? Explain.
                           (OR)
   Write the key differences between Histogram and Bar Graph.