

# HALF YEARLY EXAMINATION - 2024

STD : 12

## COMPUTER SCIENCE

TIME: 3.00 HRS

TOTAL MARKS:70

Note:(1) Answer all the questions (ii) choose the most appropriate answer from the given four alternatives and write the option code and the corresponding answer

### PART - I

15 \* 1 = 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
- What is the output of the following  
str="Computer"  
print(str[:2])  
(A) Comue (B) Cmue (C) mue (D) Coptr
- Binary search is also called as  
(A) Linear search (B) Sequential search (C) Random search (D) Half-interval search
- Who developed Python ?  
A) Ritche B) Guido Van Rossum C) Bill Gates D) Sunder Pitchai
- What plays a vital role in Python programming?  
A) Statements B) Control C) Structure D) Indentation
- Which function is called anonymous un-named function  
(A) Lambda (B) Recursion (C) Function (D) define
- The subscript of a string may be:  
(A) Positive (B) Negative (C) Both (a) and (b) (D) Either (a) or (b)
- What will be the result of the following Python code?  
S=[x\*\*2 for x in range(5)]  
print(S)  
(A) [0,1,2,4,5] (B) [0,1,4,9,16] (C) [0,1,4,9,16,25] (D) [1,4,9,16,25]
- A table is known as  
(A) tuple (B) attribute (C) relation (D) entity
- Queries can be generated using  
(A) SELECT (B) ORDER BY (C) MODIFY (D) ALTER
- Which of the following mode is used when dealing with non-text files like image or exe files?  
(A) Text mode (B) Binary mode (C) xls mode (D) csv mode
- The module which allows you to interface with the Windows operating system is  
(A) OS module (B) sys module (C) csv module (D) getopt module
- Which of the following executes the SQL command to perform some action?  
(A) execute() (B) key() (C) cursor() (D) run()
- Which of the following feature is used to represent data and information graphically?  
(A) Data List (B) Data Tuple (C) Classes and Objects (D) Data Visualization

### PART II

Answer any 6 questions. Question no 24 is compulsory.

6X2 = 12

- What do you mean by Namespaces?
- What are the different modes that can be used to test Python Program ?
- Write note on range () in loop
- What will be the output of the following python code?  
str1 = "School"  
print(str1\*3)

20. Differentiate constructors and selectors.
21. What is CSV File?
22. What is the advantage of declaring a column as "INTEGER PRIMARY KEY"?
23. List the general types of data visualization.
24. Name some of the commonly used interfaces to import C++ files in Python.

**PART- III**

Answer any 6 questions. Question no 33 is compulsory.

6X3 = 18

25. Why access control is required?
26. Explain Ternary operator with examples.
27. Write a program to display
  - A
  - A B
  - A B C
  - A B C D
  - A B C D E
28. What the different ways to insert an element in a list?
29. Differentiate PYTHON and C++
30. Write any three DDL commands
31. Mention the difference between fetchone() and fetchmany()
32. Write any three uses of data visualization.
33. Write a program to check if the year is leap year or not.

**PART - IV**

Answer all the questions.

5x5=25

34. Explain the purpose of the following functions:
  - a. plt.xlabel
  - b. plt.ylabel
  - c. plt.title
  - d. plt.legend()
  - e. plt.show()

(OR)

Write the output for the following Python commands

str1 = "Welcome to Python"

1. print(str1)
  2. print(str1[11:17])
  3. print(str1[11:17:2])
  4. print(str1[:4])
  5. print(str1[::4])
35. Explain LEGB rule with example. (OR)  
Explain Bubble Sort Algorithm with example.
  36. Explain input() and output() functions with example. (OR)  
Explain the different set operations supported by Python with suitable example.
  37. How to define constructor and destructor in Python? Explain with example. (OR)  
Explain the types of constraints in SQL with suitable example.
  38. Differentiate Excel file and CSV file. (OR)  
Write the Python script to display all the records of the following table using fetchmany()

Icode	Item Name	Rate
1003	Scanner	10500
1004	Speaker	3000
1005	Printer	8000
1008	Monitor	15000
1010	Mouse	700