ST. JOSEPH STUDY CENTRE

| 12 | th STD: Revision Test - 3 | | <u>COMPUTER</u> | R SCIENCE | Time: 3 | 8 Hrs / Total Marks: 70 |
|----|--------------------------------------|---------------------|--------------------|----------------------------|-----------|--------------------------|
| I. | Choose The Correct Answ | wer: | | | | [15 x 1 = 15] |
| 1. | Which of the following is r | not Logical operat | tor? | | | |
| | A) and | B) or | | C) not | | D) Assignment. |
| 2. | The Python prompt indicat | es that Interpreter | is ready to acc | ept instruction. | | |
| | A) >>> | B) <<< | | C) # | | D) << |
| 3. | elif can be considered to be | e abbreviation of | | | | |
| | A) nested if | B) ifelse | | C) else if | | D) ifelif |
| 4. | The condition in the if state | ement should be in | n the form of | | | |
| | A) Arithmetic or Relationa | l expression | | B) Arithmetic or Logi | cal expre | ssion |
| | C) Relational or Logical ex | pression | | D) Arithmetic | | |
| 5. | Which of the following key | yword is used to b | begin the function | on block? | | |
| | (A) define | (B) for | | (C) finally | | (D) def |
| 6. | A Function which calls itse | elf is called as | | | | |
| | (A) Built-in | (B) Recursion | | (C) Lambda | | (D) return |
| 7. | Which commands provide | definitions for cre | eating table stru | cture, deleting relations, | and mod | ifying relation schemas. |
| | (A). DDL | (B). DML | | (C). DCL | | (D). DQL |
| 8. | The command to delete a ta | able is | | | | |
| | A) DROP | B) DELETE | | C) DELETE ALL | | D) ALTER TABLE |
| 9. | The expansion of CRLF is | | | | | |
| | (A) Control Return and Lir | ne Feed | | (B) Carriage Return ar | nd Form F | Feed |
| | (C) Control Router and Lin | ne Feed | | (D) Carriage Return a | nd Line F | Feed |
| 10 | Which of the following mo | odule is provided l | by Python to do | several operations on th | ne CSV fi | les? |
| | (A) py | (B) xls | | (C) csv | | (D) os |
| 11 | Importing C++ program in | a Python program | n is called | | | |
| | (A) wrapping | (B) Downloadir | ng | (C) Interconnecting | | (D) Parsing |
| 12 | A framework for interfacin | ng Python and C+- | + is | | | |
| | (A) Ctypes | (B) SWIG | | (C) Cython | | (D) Boost |
| 13 | Which of the following is a | an organized colle | ection of data? | | | |
| | (A) Database | (B) DBMS | | (C) Information | | (D) Records |

| 14 | 14 SC | J. ite | falls | under | which | database | system? | |
|-----|-------|--------|-------|-------|-------|----------|---------|--|
| 17. | JA'LT | LIC | rans | unuer | wmen | ualabase | system: | |

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

15. Identify the package manager for Python packages, or modules.

(A). Matplotlib (B). PIP (C). plt.show() (D). python package

II. Answer any 6 of the following questions:

Question number 19 is compulsory

- 16. What are the different operators that can be used in Python?
- 17. Write note on range () in loop
- 18. Define global scope.
- 19. Differentiate Unique and Primary Key constraint.
- 20. What is CSV File?
- 21. Differentiate compiler and interpreter.
- 22. Which method is used to connect a database? Give an example.
- 23. Define: Data Visualization.
- 24. List the general types of data visualization.

III. Answer any 6 of the following questions:

Question number 26 is compulsory

- 25. Explain Ternary operator with examples.
- 26. Using if..else..elif statement write a suitable program to display largest of 3 numbers.
- 27. Write a Python code to check whether a given year is leap year or not.
- 28. What is a constraint? Write short note on Primary key constraint.
- 29. Write a Python program to modify an existing file.
- 30. What are the applications of scripting language?
- 31. Mention the difference between fetchone() and fetchmany()
- 32. Write any three uses of data visualization.
- 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')

[6 x 3 = 18]

 $[6 \times 2 = 12]$

plt.legend()

plt.xlabel('bar number')

plt.ylabel('bar height')

plt.title('Epic Graph\nAnother Line! Whoa')

plt.show()

IV. Answer the following questions:

34. a. Explain input() and print() functions with examples.

[OR]

b.Write a program to display multiplication table for a given number.

35. a. Explain the scope of variables with an example.

[OR]

b. Write the different types of constraints and their functions.

36. a. Tabulate the different mode with its meaning.

[OR]

b. Write any 5 features of Python.

37. a. Write the Python script to display all the records of the following table using fetchmany()

| Icode | ItemName | Rate |
|-------|----------|-------|
| 1003 | Scanner | 10500 |
| 1004 | Speaker | 3000 |

[OR]

b. Explain in detail the types of pyplots using Matplotlib.

38. a. Explain recursive function with an example.

[OR]

b. Write a detail note on for loop

 $[5 \times 5 = 25]$

-----ALL THE BEST-----