



23-02-2024

Standard 12COMPUTER SCIENCE

Time Allowed: 3.00 Hours

Maximum Marks: 70

**Part - I****Choose the correct answer:****15×1=15**

- 1) The variables in a function definition is called as  
a) Parameters      b) Variables      c) Definition      d) Subroutines
- 2) Which keyword is used to exit a function block?  
a) define      b) def      c) return      d) end
- 3) How many spaces does Indentation have in Python?  
a) 5      b) 4      c) 3      d) 6
- 4) What is the output of the following program?  
setA = {3, 6, 9}  
setB = {1, 3, 9}  
print(set A / setB)  
a) {3, 9}      b) {3, 6, 9, 1, 3, 9}      c) {1, 3, 6, 9}      d) {1, 6}
- 5) In which arguments the correct positional order is passed to a function?  
a) Default      b) Required      c) Keyword      d) Variable-length
- 6) Which of the following is a string used to terminate lines produced by writer() method of csv module?  
a) Data Terminator      b) Form Feed      c) Enter Key      d) Liner Terminator
- 7) What is the positive subscript and negative subscript of the character 'N' in the below string → str1 = "Tamil Nadu".  
a) 7, -3      b) 5, -4      c) 6, -3      d) 6, -4
- 8) What is the name of the data model developed by IBM?  
a) Relational      b) Hierarchical      c) Network      d) ER
- 9) The keys in python, dictionary is specified by  
a) :      b) ;      c) +      d) =
- 10) A framework for interfacing Python and C++ is  
a) Ctypes      b) SWIG      c) Cython      d) Boost
- 11) Which of the following are mandatory to write the type annotations in the function definition?  
a) { }      b) ( )      c) [ ]      d) < >
- 12) Which symbol is used to print more than one item on a single line?  
a) Semicolon (;)      b) Dollar (\$)      c) Comma (,)      d) Colon (:)
- 13) A private class variable is prefixed with  
a) \_\_      b) &&      c) ##      d) \*\*
- 14) Which statement is generally used as a placeholder?  
a) continue      b) break      c) pass      d) goto
- 15) \_\_\_\_\_ is a type of chart which displays information as a series of data points connected by straight line segments.  
a) Line chart      b) Pie chart      c) Bar chart      d) All the above

**Part - II****Answer any 6 questions. Q.No. 24 is compulsory:****6×2=12**

- 16) Define a function with respect to programming language.
- 17) Write the general categories of SQL commands.
- 18) What is algorithmic solution?
- 19) Define - Pass statement.
- 20) What is normalization?
- 21) Write the syntax of While Loop.

- 22) What is the difference between del and remove( ) function in List?
- 23) What is the purpose of destructor?
- 24) What is the value of X in the following python code?
- ```
List1=[2, 4, 6, [1, 3, 5]]
X=len(list1)
```

**Part - III****Answer any 6 questions. Q.No. 33 is compulsory:****6×3=18**

- 25) Differentiate Concrete Data type and Abstract Data type.
- 26) How will you access the elements in a list using for loop?
- 27) Write a note on Escape sequence.
- 28) Write the Syntax of csv.writer() and explain it.
- 29) What is string concatenation? Give example.
- 30) What are the applications of scripting language?
- 31) Explain the enclosed scope with example.
- 32) List the types of visualization in Matplotlib.
- 33) Write the output of the following python code.

- ```
str="Thinking with Python"
i) print(str[: :3])
ii) print(str[: :-4])
iii) print(str[9 : 13])
```

SIVAKUMAR.M,  
Sri Ram Matric HS,  
Vallam - 627809  
Tenkasi Dist.

**Part - IV****Answer all the questions:****5×5=25**

- 34) a) What is Binary search? Discuss with example.

**(OR)**

- b) Differentiate DBMS and RDBMS.

- 35) a) How will you facilitate data abstraction? Explain it with suitable example.

**(OR)**

- b) Write in brief about SQLite and the steps used to use it.

- 36) a) List out the Python File mode with its meaning while using csv.

**(OR)**

- b) Write the syntax. Description with example of the following Built-in string functions.

(i) isdigit() (ii) islower() (iii) ord() (iv) chr() (v) title()

- 37) a) Explain the clauses in SQL.

**(OR)**

- b) Explain the while loop with suitable example.

- 38) a) Explain the various buttons in a Matplotlib windows.

**(OR)**

- b) What is the output of the following code.

```
class sample:
    num=0
    def __init__(self, var):
        sample.num+=1
        self.var=var
        print("The object value is=", var)
        print("The count of object created=", sample.num)

s1=sample(15)
s2=sample(35)
s3=sample(45)
```