



Standard 12

COMPUTER SCIENCE

Time: 3.00 Hrs.

Marks: 70

PART - I

I. Choose the correct answer:

15×1=15

- 1) The function which will give exact result when same arguments are passed are called _____ function.
a) dynamic b) pure c) impure d) partial
- 2) _____ provides modularity.
a) Data Abstraction b) Functions c) Subroutines d) None of these
- 3) Which are loaded as soon as library files are imported to the program?
a) Built-in-scope b) Enclosed scope
c) Local scope d) Global scope
- 4) Which of the following is not a characteristics of an algorithm?
a) input b) program c) finitness d) simplicity
- 5) What will be the value of X for the following snippet?
A, B = 10, 3
X = A if (A/B==3) else B
Print (X)
a) 3 b) 10 c) True d) False
- 6) The optional parameter of range () function in python?
a) start b) stop c) step d) stride
- 7) Which of the following special character is used to define variable length parameter (arguments)?
a) & b) \$ c) * d) #
- 8) _____ operator is called as membership operator in strings.
a) in and not in b) in c) not in d) None of these
- 9) The keys in python dictionary in specified by _____.
a) = b) : (colon) c) + d) ; (semicolon)
- 10) The process of creating object to a class is _____.
a) Constructor b) Destructor c) Initialise d) Instantiation
- 11) The SQL command "Truncate" comes under _____.
a) DDL b) DML c) TCL d) DQL
- 12) In csv.register-dialect (), which of the following parameter is used for removing whitespaces?
a) remove space b) remove initial space
c) skip space d) skip initial space
- 13) Which of the following in the special variable which by default stores the name of the file while wrapping C++ in python?
a) --def-- b) --del-- c) --name-- d) --init--
- 14) Python has a native library for _____.
a) DBMS b) MYSQL c) SQLite d) Oracle
- 15) Which of the following function is used to draw line chart?
a) pie() b) line() c) bar() d) plot()

PART - II

II. Answer ANY SIX questions. Qn.no. 24 is compulsory:

6×2=12

- 16) What is a pair? Give example.
- 17) Write notes on exponent data.
- 18) Write the different types of functions in python.
- 19) What will be the output?
Mydict = {chr(X): X for X in range (97, 102)}
- 20) What is data consistency?
- 21) What is the use of next() function?

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- 22) Differentiate scripting language and programming language.
 23) Which method is used to connect a database with python? Give example.
 24) Write the difference between plt.plot [1, 2, 3, 4] and plot.plot [1, 2, 3, 4], [1, 4, 9, 16].

PART - III**III. Answer ANY SIX questions. Qn.no. 33 is compulsory:****6×3=18**

- 25) Explain the ternary operator with an example.
 26) Define Algorithmic complexity and its types.
 27) Write the syntax of while loop. Explain it with suitable example.
 28) Write notes on (i) capitalize() (ii) swapcase() (iii) isalpha().
 29) Write a python program to declare a class with two private variables and print the sum using a method.
 30) Write notes on format () function.
 31) **Match the following:**
 A) ALTER - 1. Table is removed and the space is freed
 B) UPDATE - 2. Alter the table structure
 C) Truncate - 3. Uses SET keyword, to give new data
 32) Write notes on string operators in python.
 33) Compare remove (), pop () and clear() functions used in lists. Give the difference also.

PART - IV**IV. Answer the following questions:****5×5=25**

- 34) a) Identify the following the code.

```
let rec gcd a, b:=
  if b<>0 then gcd (a mod b)
  else return a;
```

- i) Name of the function.
 ii) Name of the argument variables.
 iii) Statement which tells, it in a recursive function.
 iv) Statement which involves the function recursively.
 v) Statement that terminates the recursion.

(OR)

- b) Write the Pseudo code for selection sort and with example.

- 35) a) Explain input() and print() functions with suitable examples.

(OR)

- b) Write a python program to print all 3 digit odd numbers.

- 36) a) Write a python program, that illustrate the creation and function of constructor.

(OR)

- b) Write notes on the components of DBMS.

- 37) a) Differentiate DBMS and RDBMS.

(OR)

- b) Tabulate the different python file modes with its meaning.

- 38) a) What is the purpose of sys, os and getopt methods - Explain them?

(OR)

- b) **Match the following:**

- | | | |
|-----------------------|---|---|
| A) Data Visualization | - | 1. Method inside the file to display your plot |
| B) Mat plot lib | - | 2. This cross looking button allows you to check it and then click and drag your graph around |
| C) Pip | - | 3. The most popular data visualisation library in python |
| D) plt.show() | - | 4. A management software for installing python packages |
| E) Pan-Axis Button | - | 5. Graphical representation of information and data |