



Standard 12
COMPUTER SCIENCE
Part - I

Time: 3.00 Hours

Marks: 70

i) Answer all the questions.**15x1=15****ii) Choose the most appropriate answer from the given four alternatives and write the option code and the corresponding answer**

- 1) The function which will give exact result when same arguments are passed are called
 - a) Pure function
 - b) Impure function
 - c) Partial function
 - d) Dynamic function
- 2) Which of the following functions that retrieve information from the data type
 - a) Constructors
 - b) Destructors
 - c) Selectros
 - d) Recursive
- 3) The process of subdividing a computer program into separate Sub-Programs is called
 - a) Procedural Programming
 - b) Object oriented Programming
 - c) Event Driven Programming
 - d) Modular Programming
- 4) The θ (Theta) notation in asymptotic evaluation represents
 - a) Average case
 - b) Worst case
 - c) Base case
 - d) Null case
- 5) The symbol is used to print more than one item on a single line
 - a) colon(:)
 - b) Semicolon(;) c) comma(,) d) Dollar(\$)
- 6) Which of the following is known as definite loop?
 - a) while
 - b) do...while
 - c) for
 - d) if...elif
- 7) Write the output of the following function
`>>>ord('1')`
 - a) 48
 - b) 50
 - c) 96
 - d) 49
- 8) Which of the following is used as placeholders or replacement fields which get replaced along with format() function?
 - a) < >
 - b) { }
 - c) + +
 - d) \$
- 9) What will be the result of the following python code?
`>>>S=[x**3 for x in range(1, 6)]`
`>>>Print(s)`
 - a) [1, 3, 9, 27, 81]
 - b) [1, 3, 6, 9, 18]
 - c) [1, 8, 27, 64, 125]
 - d) [3, 8, 16, 25, 125]
- 10) Class members are accessed through which character?
 - a) .
 - b) &
 - c) %
 - d) #
- 11) Who is called Father of Relational Database?
 - a) E.F. Codd
 - b) Chris Date
 - c) Chen
 - d) Hugh Darwen
- 12) Which command in SQL used to restore the database to the last committed state
 - a) savepoint
 - b) commit
 - c) Rollback
 - d) Restore
- 13) Which of the following mode is used when dealing with non-text files like image or exe files?
 - a) xls mode
 - b) csv mode
 - c) Text mode
 - d) Binary mode
- 14) getopt() will return an empty array if there is no error in splitting strings to
 - a) args variable
 - b) argv variable
 - c) opt variable
 - d) i file variable
- 15) Which of the following keyword avoid the duplicate?
 - a) Distinct
 - b) Where
 - c) Group By
 - d) Order By

Part - II

Answer any 6 questions. Q.No. 24 is compulsory.

6x2=12

- 16) What is a subroutine?
- 17) What is mapping?
- 18) What are the different modes that can be used to test python program?
- 19) What are the main advantages of function?
- 20) What is dictionary in python? Write the syntax of defining a dictionary
- 21) What is normalization?
- 22) Mention the two ways to read a csv file using python
- 23) What is the advantage of declaring a column an "INTEGER PRIMARY KEY"
- 24) What will be the output of following python code?

```
A = 'Good Morning'
Print (A[::-3])
```

Part - III

Answer any 6 questions. Q.No. 33 is compulsory.

6x3=18

- 25) Differentiate concrete datatype and abstract datatype
- 26) List the characteristics of an algorithm.
- 27) List the differences between the break and continue statements
- 28) What is the use of format()? Give an example
- 29) Explain the difference between del and clear() in dictionary with an example
- 30) What are class members? How do you define it?
- 31) What is a constraint? Write a note on Default constraint
- 32) Differentiate python and C++
- 33) Write the syntax for csv.writer() and explain its parameters

Part - IV

Answer all the questions.

5x5=25

- 34) a) Explain with example pure and impure functions

(OR)

- b) Explain the LEGB Rule with example

- 35) a) Discuss about Linear Search algorithm

(OR)

- b) Explain the different types of operators with example in python

- 36) a) Write a detail note on if...else...elif statement with suitable example

(OR)

- b) Explain the following Built-in function in python

i) abs() ii) chr() iii) id() iv) round() v) pow()

- 37) a) What are the ways to insert an element in a list Explain with suitable example

(OR)

- b) Explain the different types of data model

- 38) a) What is the purpose of sys, os, getopt module in python. Explain

(OR)

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