Tsi12CS

Tenkasi District

Common Half Yearly Examination - 2024

12-12-2024

Time: 3.00 Hours

Standard 12

COMPUTER SCIENCE

Part - I

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

Tsi12CS　　2

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 incert 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.

- - - - - - -