

V12CS

Virudhunagar District
Common Half Yearly Examination - 2023



Time: 3.00 Hours

Standard 12
COMPUTER SCIENCE
Part - I

Marks: 70

I. Answer all the questions.**15×1=15**

- 1) Which of the following is constructed by placing expressions within square brackets
 - a) Tuples
 - b) Lists
 - c) Classes
 - d) quadrats
- 2) The process of binding a variable name with an object is called
 - a) Scope
 - b) Mapping
 - c) Late binding
 - d) early binding
- 3) Which of the following is used to describe the worst case of an algorithm?
 - a) Big A
 - b) Big S
 - c) Big W
 - d) Big O
- 4) The following character is used to give comments in Python program?
 - a) #
 - b) &
 - c) @
 - d) \$
- 5) elif can be considered to be an abbreviation of
 - a) nested if
 - b) if...else
 - c) else if
 - d) if.... elif
- 6) Which of the following keyword is used to exit a function block in Python
 - a) Define
 - b) finally
 - c) return
 - d) def
- 7)is the string slicing operator
 - a) []
 - b) { }
 - c) < >
 - d) ()
- 8) Which of the following statement is not correct
 - a) A list is Mutable
 - b) A tuple is Immutable
 - c) The append () function is used to add an element
 - d) The extend () function is used to tuple to add elements in a list
- 9) Class members are accessed through which operator?
 - a) &
 - b) .(dot)
 - c) #
 - d) %
- 10) Who is called father of Relation Database from the following
 - a) Chris Date
 - b) Hugh Darween
 - c) Edar Frank Codd
 - d) Edgar Frank Cadd
- 11) The command to delete a table including the structure is
 - a) DROP
 - b) DELETE
 - c) DELETE ALL
 - d) ALTER TABLE
- 12) The following mode is used when dealing with non-text like image or exe files
 - a) Text mode
 - b) Binary mode
 - c) xls mode
 - d) CSV mode
- 13) A framework for interfacing Python and C++ is
 - a) Ctypes
 - b) SWIG
 - c) Cython
 - d) Boost
- 14) Which SQLite clause is used to filter data based on the group functions?
 - a) HAVING
 - b) WHERE
 - c) ORDER
 - d) FILTER
- 15) In Python matplotlib is a
 - a) control structure
 - b) dictionary
 - c) list
 - d) library

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

- 16) What is an impure function?
- 17) What is Abstract data type?
- 18) What is Mapping?
- 19) What is the use of Lambda function?
- 20) How will you create constructor in Python?
- 21) List any 2 advantages of RDBMS.
- 22) Write the SQL statements using 'BETWEEN' and 'NOT BETWEEN' keywords.
- 23) Write the syntax of Python's OS Module.
- 24) What is Data Visualization?

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Part - III**III. Answer any six questions. Question No. 29 is compulsory.****6×3=18**

- 25) Write note on Asymptotic notation.
- 26) Explain Ternary operator with example.
- 27) Write the syntax of while loop.
- 28) How Recursive function works?
- 29) Write a Python program to calculate area and circumference of a circle using classes & objects.
- 30) Write short note on ER model.
- 31) Explain the syntax of UPDATE SET command:
- 32) Tabulate the differences between Excel file and CSV file (any three)
- 33) Write about the special variable _____ name _____ in Python

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

- 34) Explain with an example interface and implementation.
(OR)
Write any 5 characteristics of Modules.
- 35) Explain the concept of Dynamic programming with suitable example.
(OR)
Describe in detail about the procedure of script mode programming.
- 36) Write a detail note on if-else-elif statement with example.
(OR)
Explain any 5 Built-in string functions in Python.
- 37) Write a Python program that prints maximum and minimum value in a Tuple.
(OR)
Write the rules to be followed to format the data in a CSV file.
- 38) Explain the usage of aggregate function in SQLite through Python program.
(OR)
What is a Pie-Chart? How will you draw pie-chart using matplotlib.
