

Class : 12Register
Number**COMMON HALF YEARLY EXAMINATION-2024-25**

Time Allowed : 3.00 Hours]

COMPUTER SCIENCE

[Max. Marks : 70

PART - I**15X1 = 15****Note : i) All the questions.****ii) Choose the most appropriate answer from the given four alternatives and write the option code and the corresponding answer.**

1. Which of the following is a distinct syntactic block?
(a) Subroutines (b) Function (c) Definition (d) Modules
2. Which of the following allow to name the various parts of a multi-item object?
(a) Tuples (b) Lists (c) Classes (d) quadrats
3. Which of the following security technique that regulates who can use resources in a computing environment?
(a) Password (b) Authentication
(c) Access control (d) Certification
4. Binary search is also called as
(a) Linear search (c) Sequential search
(c) Random search (d) Half-interval search
5. Which of the following character is used to give comments in Python Program?
(a) # (b) & (c) @ (d) \$
6. range(30) what is the range end value?
(a) 0 (b) 1 (c) 30 (d) 29
7. While defining a function, which of the following symbol is used?
(a) ; (semicolon) (b) . (dot) (c) : (colon) (d) \$ (dollar)
8. Which of the following is the private class variable?
(a) _num (b) ##num (c) \$\$num (d) &&num
9. What symbol is used for SELECT statement?
(a) σ (b) π (c) X (d) Ω
10. Queries can be generated using
(a) SELECT (b) ORDER BY (c) MODIFY (d) ALTER
11. Which of the following is a string used to terminate lines produced by writer() method of csv module?
(a) Line Terminator (b) Enter key (c) Form feed (d) Data Terminator
12. Which of the following operator is used to access the function of imported module.
(a) : (b) . (c) , (d) +
13. What is the output of following code.

```
str="RAM"
str[1]="O"
print(str)
```


(a) RAM (b) ROM (c) ROAM (d) ERROR
14. Which of the following statement is used to create a singleton tuple.
(a) tup=(10,) (b) tup=(10.) (c) tup=(10') (d) tup=(10);
15. Which of the following is not a function.
(a) SUM() (b) AVG() (c) WHERE() (d) COUNT()

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PART - II

II. Answer any 6 questions: (Q.no: 24 Compulsory)

6x2=12

16. Differentiate Interface and Implementation.
17. What is a Pair? Give an example.
18. What is Mapping?
19. Write short notes on Exponent data?
20. List some examples of RDBMS.
21. Write a query that selects all students whose age is less than 18 in order wise.
22. Write a note on Replace() function.
23. How will you create a Class Object.
24. Write the syntax of csv.reader() and csv.writer () functions.

PART - III

III. Answer any 6 questions: (Q.no: 33 Compulsory)

6x3=18

25. Identify Which of the following are List, Tuple and class?
 - (a) arr [1, 2, 34]
 - (b) arr (1, 2, 34)
 - (c) student [rno, name, mark]
 - (d) day:= ('sun', 'mon', 'tue', 'wed')
 - (e) x:= [2, 5, 6.5, [5, 6], 8.2]
 - (f) employee [eno, ename, esal, eaddress]
26. Write any Three Characteristics of Modules.
27. Differentiate ceil() and floor() function.
28. What is the difference between the write mode and append mode.
29. Differentiate PYTHON and C++.
30. Mention the difference between fetchone() and fetchmany().
31. What is the use of end and sep Parameters in print() Function?
32. Write a note on List comprehensions.
33. Write the output of following code.


```
str1 = "my favourite subject"
str2 = "computer science"
str3=str1[:5]+str2[len(str2)-2:]
print(str3)
```

PART - IV

IV. Answer the following questions:

5x5=25

34. a) Explain with example Pure and impure functions.

(OR)

 b) What is Binary Search? Discuss with example.
35. a) Discuss in detail about Tokens in Python.

(OR)

 b) Explain Recursive Function with an example.
36. a) Write the output of the following statements.


```
>>> Tup1 = (12, 78, 91, "Tamil", (10, 20), 3.14, 69.48)
>>> print(Tup1)
>>> print(Tup1[2:5])
>>> print(Tup1[:5])
>>> print(Tup1[4:])
>>> print(Tup1[:])
```

(OR)

 b) Explain about Constructor and Destructor with suitable example.
37. a) Explain the different types of Relationship Mapping in Database.

(OR)

 b) Write the Different Types of Constraints and their Functions.
38. a) Write the syntax for getopt() and explain its arguments and return values.

(OR)

 b) Write the difference between Histogram and Bar Graph.

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