

**Vidya Vikas Mandal's
Ramacrisna Madeva Salgaocar Higher Secondary School
Margao Goa**

Preliminary Exam, December, 2025

Std: **XII Computer Technique**
Maximum Marks : **50**
Date **17/12/2025**

Sub: **SOFTWARE TECHNOLOGY**
No. of Question : **26**
Duration: **2 hours.**

Instructions :

- i. All questions are compulsory
 - ii. There are four sections in this question paper(A,B,C&D)
 - iii. In section A there are ten questions of 1 mark each.
 - iv. Section B contains ten questions of 2 marks each.
 - v. Section C contains four questions of 3 marks each. Internal choice is provided for Q24.
 - vi. Section D contains two questions of 4 marks each. Internal choice is provided for Q26.
 - vii. Write the number of each question clearly on the answer book.
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Section A

Question numbers from 1 to 10 carry 1 mark each.

1. Which character is used to end the function declaration in python?
2. Which string method returns true if the string is in lowercase.?
3. Given list mylist = [10,20,30,40,50], what is the output for the python code print(mylist[1:3])?
4. for i in range(1,5): , how many times the for loop will run?
5. Name the type of network that spans a large geographical area, a country, continent or world.
6. Which data communication mode transmission take place in both the directions simultaneously.?
7. Name the term that defines the collection of computers and devices connected by communication channel that allows users to share hardware and software resources.
8. Name the term used for the transmission of electronic data over some media.

9. Which dictionary method counts the total number of items in the dictionary?
10. In which type of Inheritance, the derived class inherits from one or more base classes.

Section B

Question numbers from 11 to 20 carry 2 marks each.

11. Explain with example keys() and clear() build-in dictionary methods.
12. What is computer network? State two advantages of computer network.
13. State two differences between Peer to Peer network and of Client Server Network.
14. Write the python code to create two tuple and interchange tuple elements.
15. Explain two advantages of object oriented programming.
16. Write two differences between object oriented programming and Procedural Oriented Programming.
17. Explain Encapsulation in Object Oriented Programming.
18. Explain different types of Scopes in python.
19. What are instance attributes ? Explain with example.
20. Briefly explain the concept of inheritance in python .

Section C

Question numbers from 21 to 24 carry 3 marks each.

21. With a neat labelled diagram describe Mesh Topology.
22. Explain digital and analog signals .
23. Explain Polymorphism and its types in Object Oriented Programming.
24. Write a python code to add n students rollno and marks scored out of 100 to a students dictionary and find the percentage of marks scored.

OR

- 24 Explain giving example method to join two dictionaries into one.

Section D

Question numbers from 25 to 26 carry 4 marks each.

25. Write a Python code to add 'n' Customers ID and their names to a dictionary and print the dictionary. Input any Customer ID and display its name if found.

26 Write a python program to separate the given tuple in the following manner.

Example

Given Tuple T= (11,22,33,44,55,66,77)

Output

T1 = (11,44,77)

T2 = (44,55,66,77)

T3 = (77,66,55,44,33,22,11)

Also output the lowest value from the given tuple.

OR

26 . Write python code that inputs 'n' integers in tuples and arrange these integers in ascending order also display the highest value from the tuple.