



**SRI BHAGAWAN MAHAVEER JAIN COLLEGE**

Vishweshwarapuram, Bangalore 560004

**For reduced syllabus 2020-21**

**Mock paper – 1**

<b>Course:</b>	II PUC	<b>Subject:</b>	Computer Science(PCMC,ABSCs,ABECs)
<b>Max. Marks:</b>	70	<b>Duration:</b>	3 hrs 15 minutes

**PART-A**

Answer all the questions. Each question carries ONE mark.

1 x 10=10

1. Expand SATA.
2. What are the values of the inputs to 3 input NAND gate if its output is 1?
3. Name the type of memory allocation used by linked list.
4. Define sorting.
5. How to declare a friend function?
6. What is sub class?
7. Which data members of base class are not inheritable?
8. What is free store?
9. Write any one advantage of ISAM file organization.
10. What is database?

**PART-B**

Answer any five questions. Each question carries TWO marks

2 x 5=10

11. Explain serial port
12. State and prove idempotence law.
13. Write the difference between class definition and class declaration.
14. List the limitations of default constructors.
15. Mention any two types of inheritance.
16. Which are the operations that cannot be performed on pointers?
17. Write the purpose of seekp() and seekg()
18. Define a)entity b) attribute

**PART-C**

Answer any five questions. Each question carries THREE marks

3 x 5=15

19. Write the truth table for 3 input variable minterm.
20. Write any 3 applications of stack.
21. Explain memory representation of queues using arrays.
22. Define a) object b) class c) method
23. Write short note on constructor overloading.
24. Write the differences between normal variable and pointer variable.
25. Explain any 3 modes of opening a file.
26. Mention the advantages of data warehouse.

**PART-D**

Answer any seven questions. Each question carries FIVE marks

5 x 7=35

27. Explain the types of RAM.

28. Minimize  $f(A,B,C,D) = \Sigma (0, 1, 2, 4, 5, 8, 9, 10, 12, 13)$  using K-map.
29. Explain basic gates with truth table and symbol.
30. Explain operations performed on linear data structures.
31. Write an algorithm to search an element in an array using linear search method.
32. Define a) data abstraction b) data encapsulation c) polymorphism d) inheritance e) function overloading
33. Explain member function definition outside the class with syntax and example.
34. Write any 3 advantages and two disadvantages of inline function.
35. Explain any one method of invoking parameterized constructor with syntax and example.
36. Explain single level inheritance with a programming example.
37. Explain three tier architecture of dbms.

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