JAIN COLLEGE, JAYANAGAR
II PUC Mock Paper -II
Subject : Computer Science (41)

Duration: 3 hrs 15 minutes Max. Marks: 70

PART A

I. Answer all the questions. Each question carries one mark. 10 × 1 =10M

1. Expand PCI.
2. State involution law.
3. Write the formula to find the memory address of an element in a 2D array.
4. Which is the default access specifier used in a class.
5. Write the purpose of ***this*** pointer in C++?
6. Define data mining?
7. What is cyber law?
8. What is boot virus?
9. Define freeware.
10. Give any one advantage of DHTML.

PART B

II. Answer any fivequestions. Each question carries two marks. 5 × 2 = 10M

11. State and prove associative law using truth table.
12. Draw general K- map for 4 variables p, q, r, s.
13. Write any 2 disadvantages of OOP.
14. What is default constructor? How many default constructors can exists for a class?
15. Differentiate text file and binary file.
16. What is relational algebra?
17. List any 4 data types in SQL.
18. Explain any 2 types of communication modes.

PART C

III. Answer any five questions. Each question carries three marks. 5 × 3 = 15M

19. Explain any 3 components of mother board.
20. What are universal gates? Write the truth table and standard symbol of NOR gate.
21. Write a note on graphs.
22. Explain call by value, call by reference and call by address.
23. Write the purpose of the following functions.

    1. seekp() 2.seekg() 3.tellp()

24. Explain sequential file organization with example.
25. What is a web server? Give two examples.
26. Explain any 3 network protocols.

PART D

IV. Answer any sevenquestions. Each question carries five marks. 7 × 5 = 35M

27. State and prove De Morgan’s theorems.
28. Write an algorithm to search an element in an array using binary search.
29. Explain any 5 operations performed on Queue.
30. Differentiate Procedure Oriented Programming and Object Oriented Programming.
31. Write a note on array of objects with an example.
32. Write the advantages and disadvantages of inline function.
33. Write a note on parameterized constructor. .
34. Define the following:
    a. Virtual base class
    b. Base class
    c. Derived class
    d. Abstract class
    e. Visibility mode
35. What is data warehouse? Briefly explain its components.
36. Explain SQL constraints with syntax and example.
37. Write a note on OSI reference model.

****