JAIN COLLEGE, J C Road Bangalore

Mock Paper -1, February - 2015

Time: 3 Hours 15 Minutes **II PUC– Computer Science (41)** **Max. Marks: 70**

PART - A

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

1. Where is L1 cache located?
2. What is K-MAP?
3. What is primitive data structure?
4. What is an object?
5. What is delete operator in C++??
6. Give the symbol notation for *project* in relational algebra.
7. What is LAN?
8. What is chatting?
9. What is a virus?
10. Define frames in HTML

PART - B

II. Answer any FIVE questions. Each Question carries TWO marks. 5 × 2 =10

11. State complementary law in Boolean algebra.
12. Simplify xy+xyz+xyz+xzy.
13. What are the applications of object oriented programming?
14. What is a constructor? Give one example.
15. What is the difference between seekg() and tellg() functions?
16. Explain specialization with example.
17. List the components of SQL architecture?
18. Classify and explain types of servers.

PART - C

III. Answer any FIVE questions. Each Question carries THREE marks. 5 × 3 =15

19. Explain the characteristics of motherboard.
20. Construct a truth table for minterms having three variables and designate the terms.
21. Write a note on nonlinear data structures.
22. What is the function of new operator in C++? Give example.
23. Compare binary file and text file.
24. List the components of data warehousing.
25. What are the advantages and disadvantages of www?
26. Explain the applications of networking.

PART - D

IV. Answer any SEVEN questions. Each question carries FIVE marks. 7 X 5 = 35

27. State and prove De Morgan's theorem algebraically.
28. Define data structure and explain how it is classified.
29. Write an algorithm to perform binary search.
30. Define 1)class 2) polymorphism 3) data abstraction 4)dynamic binding 5)base class
31. How to create an array of objects? Explain with example.
32. Explain inline function with example.
33. Explain the rules for creating constructors.
34. What are the types of inheritance? Explain any two.
35. Explain data processing cycle.
36. Explain SQL constraints with example.
37. Explain OSI model with a neat diagram.

****

JAIN COLLEGE, J C Road Bangalore

Mock Paper -2, February - 2015

Time: 3 Hours 15 Minutes **II PUC– Computer Science (41)** **Max. Marks: 70**

PART - A

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

1. What is a port?
2. What is POS?
3. What is a stack?
4. What is the default access specifier of a class?
5. What is an address operator?
6. What is information?
7. Mention any one disadvantage of ring topology.
8. Expand 2G.
9. What is freeware?
10. What is the use of webpage?

PART - B

II. Answer any FIVE questions. Each Question carries TWO marks. 5 X 2 =10

11. Write the minterm and maxterm for a function F(x,y,z) when x=1, y=0, z=0.
12. Explain the principle of duality theorem in detail.
13. Write any two advantages of object oriented programming.
14. Mention the features of parameterized constructor.
15. Explain any two file opening modes with example.
16. Explain generalization with example.
17. How do you modify the column name and width for existing table?
18. What do you mean by transmission modes?

PART - C

III. Answer any FIVE questions. Each Question carries THREE marks. 5 X 3 =15

19. Explain the components of motherboard.
20. Realize AND gate and OR gate using NAND gate.
21. Explain memory representation of stack using arrays.
22. How dynamic memory allocation is different from static memory allocation?
23. Write a note on various file streams supported by C++ for file input and output.
24. Explain aggregate functions in SQL.
25. Explain various networking devices used.
26. Give the features of XML.

PART - D

IV. Answer any SEVEN questions. Each question carries FIVE marks. 7 X 5 = 35

27. Reduce the following function using K-MAP where F(x,y,z)=∑(5,6,7,8,9,10,14).
28. Write an algorithm to perform insertion sort.
29. Explain different types of queue with neat diagrams.
30. Write the differences between procedural programming and object oriented programming.
31. Explain member functions

    i) inside class definition.

    ii) outside class definition.
32. Explain the features of friend function.
33. Explain destructors with syntax and example.
34. What is a virtual base class and what are the requirements of virtual base class?
35. Write a note on file organization.
36. Write the difference between *order by* and *group by* with example.
37. Explain different types of topologies.

****