Surana Ind. PU College

Preparatory -2

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 X10 =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 CDMA.
9. What is freeware?
10. Write any two browsers.

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 1) tuple 2) foreign key.
17. How do you modify the column name and width for existing table?
18. Explain Half duplex communication.

PART - C

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

19. Explain the any 5 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 Class.
24. Explain any 4 string 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 Random file organization.
36. Write the difference between *order by and group by* with example.
37. Explain different types of topologies.

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