



JAIN COLLEGE, J C Road Bangalore
Mock Paper -1, January - 2017
II PUC- Computer Science (41)

Time: 3 Hours 15 Minutes

Max. Marks: 70

PART - A

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

1. Expand SDRAM.
2. Write the dual of $1+0=1$.
3. What is LIFO.
4. Define Object.
5. What is static memory?
6. What is tuple?
7. What are cookies?
8. What is chatting?
9. What is search engine?
10. What is web scripting?

PART - B

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

11. Simplify the Boolean expression algebraically $XYZ + XYZW + XZ$.
12. Give algebraic proof of absorption law of Boolean algebra.
13. Write any two advantages of object oriented programming.
14. Give the syntax of parameterized constructor.
15. Differentiate `get()` and `getline()`.
16. What is specialization?
17. Give the syntax and example to create table.
18. List the goals of networking.

PART - C

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

19. Explain some of the characteristics of motherboard
20. Realize OR gate using NAND gate.
21. Write the following infix expression to its prefix and postfix expression $(A+B-C) / (D * E)$.
22. Show the general form of new and delete operator in C++?
23. Mention the types of file. Explain any one.
24. Briefly explain one-tier database architecture.
25. What is web browser? Mention any two web browsers.
26. Explain any three text formatting tags in HTML.

PART - D

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

27. Reduce the following function using K-MAP where $F(A,B,C,D) = \sum(0,4,8,9,10,11,12,13,15)$.
28. Explain any five basic operations performed on arrays.
29. Write an algorithm to delete a data element from the queue.
30. What are the advantages and disadvantages of OOP.

31. Explain member function
 - i) inside class definition.
 - ii) outside class definition.
32. Define an inline function. What are the advantages and disadvantages of using inline function in a program?
33. Define constructor. Explain constructor overloading with an example.
34. What is a virtual base class and what are the requirements of virtual base class?
35. Explain about various types of Data Base Models.
36. Write the difference between DDL, DML and DCL commands?
37. Explain OSI reference model with a neat diagram.



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Mock Paper -2, January - 2017
II PUC- Computer Science (41)

Time: 3 Hours 15 Minutes

Max. Marks: 70

PART - A

- I. Answer all the questions. Each question carries ONE mark. 1 × 10 =10**
1. What is a disk controller?
 2. What is logic gate?
 3. What is pop operation in stack?
 4. Define class?
 5. How do you declare pointer?
 6. What is data?
 7. What is web hosting?
 8. Define topology?
 9. Expand FLOSS
 10. Give one example for empty tag?

PART - B

- II. Answer any FIVE questions. Each Question carries TWO marks. 5 × 2 =10**
11. Prove algebraically that $(X+Y)(Y+Z)=Y+XZ$
 12. State Demorgan's first theorem.
 13. What is Data Abstraction?
 14. Write any 2 characteristics of constructors?
 15. What is tellg() and tellp()?
 16. What is entity and attribute?
 17. Write the classification of SQL commands
 18. What is voice chat and video conferencing

PART - C

- III. Answer any FIVE questions. Each Question carries THREE marks. 5 × 3 = 15**
19. Explain system bus.
 20. PT $X(X+Y)=X$
 21. What is a queue? Mention the types of it?
 22. What is address operator? give an example
 23. Write the syntax for seekp
 24. Give the different notations used in ER diagram representation.
 25. What is open source software?
 26. Write the advantages of HTML?

PART - D

- IV. Answer any SEVEN questions. Each question carries FIVE marks. 7 × 5 = 35**
27. Simplify the following $f(A,B,C,D)=\Sigma(0,1,2,4,5,6,8,9,12,13,14)$ using KMAP.
 28. What is linear data structure? Explain with an example
 29. Write an algorithm to perform enqueue operation.
 30. Explain Encapsulation with a suitable example.
 31. Explain class definition and class declaration with syntax and example.

32. What is a friend function? What are its properties?
33. What are the concepts associated with constructors?
34. Explain the private visibility mode with a suitable example?
35. What is data warehouse? List out the components and advantages of data warehouse?
36. Explain Cartesian product /join with a suitable example.
37. Explain network topologies types?