

**Part-A**

**I. Answer all the following questions. Each question carries 1 mark. 1x 10 =10**

1. What is a Motherboard?
2. What are the values of the inputs to a three input OR gate if its output is 1?
3. Name the data structure which is called LIFO list.
4. Write one difference between private and protected access specifier.
5. What is memory leak?
6. Write an advantage of network model.
7. What is hacking?
8. Expand GPRS.
9. What are free softwares?
10. What is web hosting?

**Part-B**

**II. Answer any 5 questions. Each question carries 2 marks. 2 x 5 =10**

11. State and prove associative law of addition.
12. Explain the principle of duality theorems in detail.
13. Define function overloading and message passing.
14. What is a default constructor? Is it possible to overload a default constructor?
15. Explain input and output operation in binary file.
16. Write the advantage and disadvantage of ISAM.
17. Explain order by clause with syntax and example.
18. Explain the types of servers in networks.

**Part-C**

**III. Answer any 5 questions. Each question carries 3 marks 3x 5 =15**

19. Define (a) North Bridge (b) South Bridge (c) CMOS.
20. Realize AND, OR, NOT gates using NOR gate.
21. Write the applications of stack.
22. Write the operations that can be performed on pointer?
23. Explain the modes of opening a file.
24. Define (a) File (b) Table (c) Attributes.
25. Write the advantages of e-commerce.
26. What are the uses of server side scripting?

**Part-D**

**VI. Answer any 7 questions. Each question carries 5 marks 5x7= 35**

27. Simplify the following  $f(A, B, C, D) = \pi(1, 5, 6, 7, 11, 12, 13, 15)$  using K-map.
28. Write an algorithm them to perform linear search.
29. Write an algorithm to perform insertion sort.
30. Write the advantages of OOPs over earlier programming.
31. Write the syntax for member functions outside class definition with syntax and example.
32. What is an inline function? Write the advantages and disadvantages of inline function.
33. What are parameterized constructors? Explain the different ways of invoking parameterized constructors.
34. Explain the types of inheritance.
35. What is data warehouse? Explain the components of data warehouse.
36. Explain the comparison operators in SQL.
37. Write a note on virus.

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