

## MODEL QUESTION PAPER - 1

TIME: 3¼ Hours

COMPUTER SCIENCE

MAX. MARKS: 70

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### PART-A

**Answer all the questions. Each question carries one mark.**

1. What is a motherboard?
2. What is a logic gate?
3. Give an example for primitive data structure.
4. Define an object.
5. Give the declaration of a pointer.
6. What is a primary key?
7. Expand UTP?
8. What is full-duplex communication mode?
9. Define e-Commerce.
10. What is HTML?

### PART-B

**Answer any five questions. Each question carries two marks.**

11. Prove algebraically  $X + XY = X$
12. Write the standard symbol and truth table of OR gate.
13. Write any two rules to create a constructor.
14. What are base class and derived class?
15. Differentiate between read() and write() functions in data files.
16. Give any two advantages of database.
17. Write the differences between char and varchar data types in SQL.
18. Explain any two protection methods used in computer networks.

### PART-C

**Answer any five questions. Each question carries three marks.**

19. Explain cache memory.
20. Explain the working of NAND gate.
21. Write the advantages of an array.
22. Write any three operations that can be performed on pointers.
23. Explain any three modes of opening a file.
24. Explain logical three-tier architecture of database.
25. Write any three criteria of OSS.
26. Explain any three text formatting tags.

#### **PART-D**

**Answer any seven questions. Each question carries five marks.**

27. Given the Boolean function  $F(W, X, Y, Z) = \sum(0, 2, 3, 4, 7, 8, 11, 12)$ , reduce it by using Karnaugh map.
28. Write an algorithm to insert an element into the array.
29. What is a queue? Explain the different types of queues.
30. What are the advantages of OOP over earlier programming methods?
31. Explain array as member of the class with a suitable programming example.
32. What is function overloading? Write needs of function overloading.
33. Explain default constructor with suitable programming example.
34. Explain the types of inheritance.
35. Explain the stages of data mining.
36. Explain the logical operators of used in SQL.
37. Name the different types of network. Explain any two types.

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## MODEL QUESTION PAPER - 3

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### PART-A

**Answer all the questions. Each question carries one mark.**

1. What is a microprocessor?
2. Which gate is called inverter?
3. Give an example of non-linear data structure.
4. Name any one object oriented programming language.
5. What is free-store?
6. Define a tuple.
7. Expand FTP.
8. What is a simplex communication mode?
9. Mention any one web browser.
10. What is DHTML?

### PART-B

**Answer any five questions. Each question carries two marks.**

11. Prove algebraically  $X + \overline{XY} = X + Y$
12. Write the standard symbol and truth table of AND gate.
13. Write the syntax to define a default constructor. Give example.
14. What is hybrid inheritance? Give example.
15. Give the usage of seekg() and seekp().
16. Write any two applications of database.
17. What is ORDERBY and GROUPBY clause in SQL.
18. List any two goals of computer network.

### PART-C

**Answer any five questions. Each question carries three marks.**

19. What is primary memory? Name two types of primary memory.
20. Explain the working of NOR gate.
21. Write an algorithm for PUSH operation.
22. Give the difference between static and dynamic memory allocation.
23. What is a stream? Name the streams used for file I/O operations.
24. Briefly explain hierarchical data model.
25. Explain any three types of e-Commerce.
26. What is web hosting? Mention the types of web hosting.

#### PART-D

**Answer any five questions. Each question carries five marks.**

27. Given the Boolean function  $F(W, X, Y, Z) = \sum(0, 1, 2, 3, 5, 7, 8, 9, 10, 11, 13, 15)$ , reduce it by using Karnaugh map.
28. What is a primitive data structure? Explain the operations performed on primitive data structure.
29. Write an algorithm to sort the elements of the array using insertion sort method.
30. Explain any five features of OOP.
31. Explain the definition of class with syntax and example.
32. What is inline function? Explain inline function with suitable programming example.
33. Write the rules to create a constructor.
34. What is visibility mode? Explain private and public inheritance.
35. Give the differences between manual and electronic data processing.
36. Explain comparison operators in SQL.
37. What is network topology? Explain any two network topologies.

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## MODEL QUESTION PAPER - 2

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### PART-A

**Answer all the questions. Each question carries one mark.**

1. What is data bus?
2. Define AND gate.
3. Give an example for non-primitive data structure.
4. Define a class.
5. Write the symbol of address-of operator.
6. Define an attribute.
7. What is half-duplex communication mode?
8. Expand SIM.
9. What is proprietary software?
10. What is web hosting?

### PART-B

**Answer any five questions. Each question carries two marks.**

11. Prove algebraically  $X \cdot (X + Y) = X$
12. Write the standard symbol and truth table of NOR gate.
13. What is a destructor? Write the symbol used with destructor.
14. What is single level inheritance? Give example.
15. Write any two member functions belong to ofstream class.
16. Differentiate data and information.
17. Write the syntax and example of create command in SQL.
18. Explain LAN in computer networks.

### PART-C

**Answer any five questions. Each question carries three marks.**

19. Explain types of motherboard.
20. Explain the working of XOR gate.
21. Give the disadvantages of arrays.
22. Write any three advantages of pointers.
23. Explain the following: `get()`, `getline()`, `read()`
24. Explain serial and sequential file organization.
25. Write any services used in e-Commerce.
26. Write the general structure of HTML program.

### PART-D

**Answer any seven questions. Each question carries five marks.**

27. Given the Boolean function  $F(A, B, C, D) = \sum(1, 3, 4, 5, 6, 7, 9, 11, 12, 13, 14, 15)$ , reduce it by using Karnaugh map.
28. Explain the different operations that can be performed on linear data structure.
29. Write the applications of queues.
30. Write the applications of OOP.
31. Explain how do we define a member function inside the class definition with a suitable example.
32. What is function overloading? Write the advantages of function overloading.
33. Explain parameterized constructor with programming example.
34. What are the advantages of inheritance?
35. What is data warehouse? Explain the stages of data warehouse.
36. Explain group functions in SQL.
37. Explain the different methods to prevent computer virus.

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