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Subject Code : 41 (NS)

COMPUTER SCIENCE

Time : 3 Hours 15 Minutes]

[Total No. of questions : 37]

[Max. Marks : 70]

PART – A

Answer all questions. Each question carries 1 mark.

(10 × 1 = 10)

- 1) What is a port?
- 2) Which gate is called as inverter gate?
- 3) Define root node in a binary tree.
- 4) Mention the operator used to access member of a class.
- 5) How to declare a pointer?
- 6) What is meant by data mining?
- 7) Expand MIME.
- 8) Name any one type of UTP cable.
- 9) Give an example for web browser.
- 10) What is web scripting?

**PART – B**

Answer **any five** questions. Each question carries **2** marks.

(5 × 2 = 10)

- 11) Prove that $xy + x\bar{y} = x$.
- 12) What is tautology and fallacy?
- 13) Define polymorphism. Give an example.
- 14) Explain any two features of parameterized constructor.
- 15) Differentiate between read() and write().
- 16) Mention the types of data independence.
- 17) Write the syntax and example for insert command in SQL.
- 18) Briefly explain Local Area Network.

PART – C

Answer **any five** questions. Each question carries **3** marks.

(5 × 3 = 15)

- 19) Define cache memory. Mention the types of cache memory.
- 20) Write the logic diagram and truth table for NAND gate.
- 21) Explain applications of arrays.
- 22) What are the advantages of pointers?



- 23) Discuss any three file mode parameters in C++.
- 24) Explain any three symbols used in E-R diagram.
- 25) Mention any three advantages of E-commerce.
- 26) Explain any three HTML tags.

PART – D

Answer **any seven** questions. Each question carries **5** marks. **(7 × 5 = 35)**

- 27) Given Boolean function $F(A, B, C, D) = \Sigma(0, 1, 2, 3, 6, 10, 13, 14, 15)$ reduce it by using Karnaugh map.
- 28) Write an algorithm to search an element in an array using linear search method.
- 29) Explain different operations on linked list.
- 30) Give the differences between procedural programming and object oriented programming.
- 31) Write the general syntax for defining and declaring a class with programming example.
- 32) What is function overloading? Explain the needs for function overloading.
- 33) What is a constructor? Write the syntax and programming example for default constructor.



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- 34) What are the advantages of inheritance in C++?
 - 35) Explain the features of database system.
 - 36) Explain the various group functions in SQL.
 - 37) Give the measures for preventing virus.
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