

Surana Ind. PU College
Preparatory - 3
Subject: II PUC Computer Science (41)

Duration: 3 hrs 15 minutes

Max. Marks: 70

PART – A

I. Answer all the questions. 10 x 1= 10

1. Give any one functionality of control bus.
2. What is a logic gate?
3. Define queue.
4. Define an object.
5. What is the difference between * and &?
6. Define normalization.
7. Expand TCP/IP?
8. Expand WiFi.
9. What is meant by freeware?
10. Mention any one field that can be added to a form.

PART – B

II. Answer any 5 questions. 5 x 2=10

11. State the associative law of addition and multiplication.
12. Write shorthand notation for the following maxterm
 - a) $x+\bar{y}+z$ b) $x+y+z$
 - c) $x'+y+z'$ d) $x+y'+z'$
13. define a) dynamic binding b) Message Communication
14. differentiate between text and binary file
15. Mention the need of an inline functions.
16. Explain the terms Entity, Attribute.
17. Give the DCL commands and explain why they are used?
18. Write a note on GPRS.

PART – C

III. Answer any 5 questions.

5 x 3=15

19. Mention the types of UPS.
20. Prove the following rules
 - a) $\overline{xy} + xy = x$
 - b) $x + y = y + x$
 - c) $x + \overline{xy} = x + y$
21. Define the following with respect to binary tree
 - a) Root b) Depth c) degree
22. What is an object pointer? How to create and assign value to an object pointer?
23. Explain the modes to open a file.
24. Explain the levels of data abstraction in DBMS.
25. Write a note on serial and parallel data transfer.
26. What is webhosting? Explain any 3 types of webhosting services.

PART – D

IV. Answer any 7 questions.

7 x 5=35

27. State and prove de-Morgan theorem?
28. Mention different types of queues and explain.
29. Write an algorithm to insert an element in an array.
30. Give the advantages and disadvantages of oop.
31. Explain the definition of a class with programming example.
32. Write a program to find the area of a square, rectangle and triangle using function overloading.
33. What is a parameterized constructor? Explain with a program
34. Explain single inheritance with a suitable c++ program.
35. Mention and explain types database architectures.
36. Write a note on SQL String functions in with syntax and example.
37. Explain any 5 network devices.
