## II PUC MODEL PAPER - 3

**Time: 3:15mins.**          **Subject: COMPUTER SCIENCE**          **Max. Marks: 70**

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### PART – A

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

**I.  Select the correct answer from the choices given:**                          **1X 20 = 20**

1. Data bus provides a path to transfer data between ___ and ____.
   a) CPU and i/p device      b)CPU and o/p device      c) CPU and memory      d)both a & b

2. XOR gate produces output 1 for only those input combinations that have ___.
   a) even number of 1's      b) odd number of 1's      c) even number of 0's      d) odd number of 0's

3. Max term means_____.
   a)  Sum-term having the entire variable          b)sum of the variables

   c) product terms only                            d)none of above.

4. Array size should be_____.
   a) negative number      b) positive number      c) complex number      d) both a & b

5. If no access specifier is mentioned , then by default members are____.
   a)public                b) private              c) protected              d) all the these.

6. Need for function overloading is_____.
   a)  Code maintenance is easy   b) easy to understand the flow of information and debug

   c) easier interface between program and real world objects          d)all the above.

7. Constructor name is same as _____ name.
   a)  class              b)member function        c)object                  b)data member

8. All the members of the class except _____ members are inherited.
   a)public              b)private                c)protected              d) explicit

9. Which of the following is a dereferencing operator?
    a)  &              b)  *                      c) %                      d) @

10. Candidate keys which are not selected as primary key is called_____.
    a) alternate key      b) foreign key            c) super key            d) composite key

11. The ____constraint ensures that all values in a column are distinct.
    a)  unique            b) Distinct              c)primary key            d) both a & c

12. What does a set of rules defines?
    a)  FTP              b) SMTP                  c) Protocol              d) HTTP

13. Identify the first network which was based on TCP/IP protocol
    a)  ARPANET          b) HUB                    c) ETHERNET              d) RJ-45

14. Software which is available free of cost, but it cannot be modified is
    a)OSS                b)freeware                c)proprietary ware  d)shareware

15. The tag which encloses an entire HTML document
    a)  head            b) title                  c) body                  d) html

**II Fill in the blanks choosing the appropriate word/words from those given in brackets.(Repeated answer will not be considered)**

    (data,DBMS,tuple,domain,attribute )

16. Records are also called the _____.
17. Each column is identified by a distinct header called the _____.
18. Set of values in that attribute are called_____.
19. ____is a collection of facts, figures, statistics .
20. A _____is a software that allow creation, definition and manipulation of database.

## PART – B

**III. Answer any FOUR of the following.**                    **2 x 4 = 8**

21. Explain cache memory.
22. Prove x+xy=x.
23. Write the logic gate and truth table for AND gate.
24. What is a queue? Mention the types of queues.
25. Define generalization and specialization.
26. Write any two advantages of ring topology.
27. What are the advantages of e-commerce.
28. Differentiate between read() and write().

## PART - C

**IV. Answer any FOUR of the following.**                    **3 x 4 = 12**

29. Explain any three file opening modes.
30. Explain the structure of HTML.
31. What are the advantages of pointers
32. What is principal of duality? Give an example.
33. Realize the basic gates by using only NOR gate.
34. Give the features of USB port.
35. What is open source software.
36. What is data structure? Write its classification.

## PART – D

**V. Answer any SIX of the following.**                    **5 x 6 = 30**

37. Explain the characteristics/features/basic concepts of OOPs.
38. Write an algorithm for insertion sort.
39. Explain member function
    a) Inside class definition
    b) Outside class definition.
40. Explain single inheritance with example.
41. What are constructors? Write the rules for writing a constructor.
42. State and prove commutative laws using truth table.
43. Write a note on OSI reference model.
44. Explain the operations performed on queues.

## PART –E

**VI Answer any two questions.Each question carries FIVE marks.**                    **5 x 2 = 10**

45. Using K-Map simplify f(a,b,c,d)=m1+m2+m4+m5+m9+m11+m12+m13
46. Explain SQL constraints.
47. Explain inline function with syntax and example: