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MODEL QUESTION PAPER

II PUC

2024

II PUC – MODEL QUESTION PAPER
SUBJECT: COMPUTER SCIENCE (41)

Time: 03:15 Hrs. **Max. marks :70**

PART – A

Answer all the questions, each question carries One mark. **20 x 1 = 20**

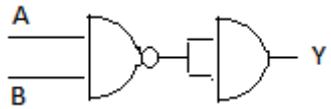
I Select the correct answer from the choices given.

1. Which of the following motherboard contain old processor socket, DIMM, ISA slot.
   (a) AT (b) XT (c) Baby AT (d) ATX

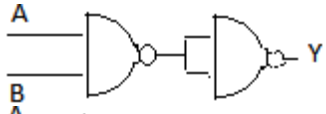
2. Boolean Algebra is very useful in the design of
   (a) Analog circuit (b) Hardware circuit
   (c) Electrical circuit (d) logic circuit

3. Given two logic gates with 2 inputs and 1 output, when A=1, B=1 are inputs, output Y=1, which of the following circuit produces output Y=0.

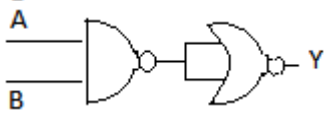
(a)

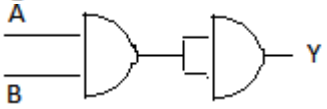


(b)



(c)(d)





4. Assertion (A) : A queue is a FIFO data structure.
   Reason (R) :An ordered collection of items where insertion anddeletion takes place at the different end.
   (a) A is true and R is false.
   (b) A is true and R is correct explanation.
   (c) A is false and R is true.
   (d) A is true and R is not correct explanation.

5. Given the class

```
class box
{
    int length;
    public: int width;
    private: int height;
    void set_hieght(int i )
    {
        hieght=i;
    }
    void get_hieght( )
    {
        return(hieght);
    }

};
```

   public private
   (a) width length, hieght

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(b) width, length hieght
(c) length,hieght width
(d) length width, hieght

6. A) The inline function is a compact function.
B) Inline function run little slower than normal function.
C) Very efficient code can be generated.
(a) Both A and C are correct.
(b) Both A and B are correct.
(c) Both B and C are correct.
(d) All A, B and C are correct.

7. Constructor should be declared in
(a) Private (b) Public (c) Protected (d) All of these

8. If a class is derived from more than one base class, then it is
(a) Single inheritance (b) Multilevel inheritance
(c) Multiple ingheritance (d) Hierarchical inheritance

9. In the given program segment identify the error.

```
void main( )
{
        int *ptr, n=20;
        ptr=*n;
        cout<<"\n output is "<<ptr;
}
```

(a) Multiple declaration of n (b) Invalid pointer declaration
(c) Invalid indirection (d) Statement missing

10. The processed data is
(a) data (b) hardware (c) information (d) DBMS

11. Which clause is used with SELECT statement to display the datail in a sorted order with respect to a specified column
(a) WHERE (b) HAVING (c) ORDER BY (d) DISTINCT

12. The topology consists of a central node to which all the other nodes are connected by a single path
(a) Graph topology (b)Star topology
(c)Ring topology (d) Circular topology

13. An example for simplex communication mode
(a) Walkie talkie (b) Television (c) Telephone (d) Mobile

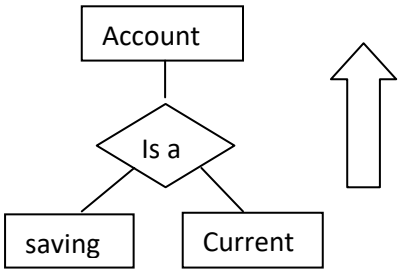
14. Which type of following source code is not freely available?
(a) Proprietary software
(b) Free software
(c) Open source software
(d) Free software foundation

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15. Who invented the HTML?
(a) Tim Berners Lee (b) Charles Babbage
(b) Blaise Pascal (d) Dennis Ritchie

II Fill in the blanks choosing the appropriate word/words from those given in the brackets. (Record, Hierarchical, Logical 1-tier architecture, generalization, rectangle, network)

16. A single entry (row) in a table is called _____.
17. DBMS is the only entity where uses directly sits on DBMS and use it is _____
18. The data model organizes the data in the form the tree is _____
19. The symbol is used to represent entity in ER diagram is _____
20.



This is a bottom-up approach and it is also called as _____

PART-B

III Answer any FOUR questions. Each question carries TWO marks: 4 x 2 =8

21. What is tautology and fallacy?
22. Prove that X + Y = Y + X.
23. Define data abstraction and data encapsulation.
24. Mention any two invoking methods of parameterized constructor.
25. Give the difference between get() and getline().
26. Mention the stages of data processing cycle.
27. Compare char and varchar datatypes in SQL.
28. Briefly explain ring topology.

PART-C

IV Answer any four questions. Each question carries three marks: 4 x 3 =12

29. What is cache memory? Explain any two types of cache.
30. Write the standard symbol and truth table for XOR gate.
31. Write any three advantages of arrays.
32. Give the difference between static and dynamic memory allocation.
33. Explain any three file opening modes.
34. Briefly explain DBMS uses.
35. Explain types of e-commerce application.
36. What is web hosting? Explain any two types of web hosting.

PART-D

V Answer any FOUR questions, each question carries Five marks: 4 x 5= 20

37. Write an algorithm for searching an element using binary search method.

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38. What is a stack data structure? Explain any four operations performed on stack data structure.
39. Write the advantages of OOP over earlier programming methods.
40. Explain with programming example to overload a function with different number of arguments.
41. What is default constructor? Write the syntax and features of default constructor?
42. Write the advantages of inheritance.
43. Briefly explain manual and electronic data processing.
44. What is a virus? Explain types of virus.

VI Answer any TWO questions, each question carries Five marks 2x5=10

45. Given the Boolean function F(A,B,C, D) =∑(1, 3, 5, 7, 9, 11, 12,13,14,15). Reduce it using K-map.
46. Explain member function inside the class definition with suitable example.
47. Write the SQL command to develop following table also find total, maximum and minimum marks in the table

REG	NAME	SUB1	SUB2	SUB3	TOT	MAX	MIN
001	abc	80	85	83	248	85	80
002	pqr	89	70	80	239	89	70
003	lmn	90	93	92	275	93	90

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