

Part A

(20*1=20 marks)

Answer all the questions. Each question carries one mark.

Select the correct answer from the choices given.

(Repeated answers will not be considered)

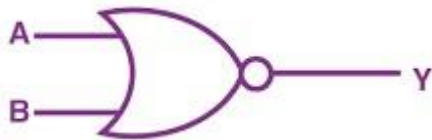
1. Which component of computer coordinates overall functioning of the computer

- a) ALU b) CU c) Registers d) North Bridge

2. A variable on its own or in its complemented form is

- a) product term b) literal c) sum term d) word

3. What are the inputs for getting the output of the following gate as 1



- a) A=1 B=1 b) A=0 B=0 c) A=0 B=1 d) A=1 B=0

4. Example for traversing in a linear array is

- a) binary search b) linear search c) to find max element in an array
d) inserting an element at a given position in an array

5. A class definition is the process of

- a) naming the class only b) writing interface operations only c) naming the class and defining methods and data members
d) naming the data variables only.

6. Function can be overloaded when

- a) function names are same
b) The number of parameters are different
c) The data types of parameters are different
d) all of the above

7. ----- is called automatically when the object is destroyed

- a) destructors b) default constructor c) copy constructor d) parametrized constructor

8. ----- operator shows the derivation from the base class in inheritance

- a):: b)& c): d)*

9. & and * are two pointer operators which are

- a) logical
- b) binary
- c) unary
- d) ternary

10. Which of the following is represented using double rectangle in E R diagram?

- a) Weak entity
- b) Attribute
- c) Relationship
- d) Row

11. Following is not a DCL command.

- a) Grant
- b) Revoke
- c) Both a and b
- d) Insert

12. Which is used in collaboration with the select statement to arrange identical data into groups?

- a) order by
- b) group by
- c) where
- d) arrange

13. Which of the following software is neither open nor freely available?

- a) open source software
- b) free software
- c) freeware
- d) proprietary software

14. The non profit organization created for the purpose of supporting free software movement

- a) OSI
- b) W3C
- c) FSF
- d) GNU

15. Which of the following is not a scripting language?

- a) Python
- b) XML script
- c) PHP script
- d) Java script

(hierarchical model, ISAM, number, random file organization, tuple, G-sat)

16. ----- is an example for data mining software.

17. ----- is a data model that follows tree structure

18. Each row in a table is called -----

19. ----- stores data in random order in the database

20. An example for data types used in DBMS is -----

Part-B (4*2=8 marks)

Answer any 4 questions. Each question carries 2 marks

21. State and prove Involution law.

22. Explain NOR gate

23. Compare default constructor and parametrized constructor.

24. What is the use of new and delete operators?

25. Mention different DBMS users.

26. What is the use of GRANT and REVOKE command.

27. Write the syntax and example of UPDATE command in SQL.

Part-C (4*3=12 marks)**Answer any 4 questions. Each question carries 3 marks**

28. What is a slot? Explain any 2 slots.
29. Write any 3 applications of queues.
30. What are the operations that cannot be performed on pointers?
31. Name the file pointers. Explain seek() and tellg() functions.
32. Explain any 3 advantages of a data warehouse.
33. Explain the types of E-commerce.
34. What is DHTML? Write any 2 features of DHTML.

Part-D (4*5=20 marks)**Answer any FOUR questions. Each question carries 5 marks**

35. Write an algorithm for Binary search.
36. Explain the types of Queue.
37. Write any 3 advantages and 2 disadvantages of OOPS
38. What is inline function? Explain inline function with suitable example.
39. Define default constructor. Give the syntax and example of default constructor.
40. What is visibility mode? Explain private and public inheritance.
41. What is a virus? Explain measures to prevent viruses.

Part- E (2*5=10marks)**Answer any TWO questions. Each question carries 5 marks**

42. Given the Boolean function

$$F(W,X,Y,Z)=m_0+m_1+m_2+m_3+m_4+m_5+m_6+m_7+m_8+m_9+m_{10}+m_{11}$$

Reduce using k-map.

43. Define a class named rectangle with the following criteria

- 1) data members: length, breadth
- 2) member function: input(), compute() and output()
- 3) define member function outside the class to input length and breadth, compute the area of rectangle and output the area.

44. With reference to the table given below, write SQL commands to perform the following operations

Empid	Name	DOB	Salary	Tax	Net salary
1001	ABC	28-01-77	50000	100000	40000
1002	EFG	29-05-76	60000	15000	45000
1003	XYZ	18-04-78	45000	9000	36000
1004	PQR	14-03-77	44000	7000	37000

- a) Display all records of employee table.
- b) Find the max of net salary
- c) Find the min of net salary.
- d) Delete all records from employee table
- e) Remove employee table
