

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. ----- is known as CPU's working memory
a) Cache b) Primary memory c) Register d) Secondary Memory
2. The product of sums canonical form is also known as
a) Maxterm b) Minterm c) Both a and b d) None of the above
3. The output of xnor gate is 1, which input combination is correct?
a) a=1,b=0 b) a=0,b=0 c) a=0,b=1 d) none of the above
4. In 1d array, if LB=0, UB=12 then array size is
a) 11
b) 13
c) 14
d) -1
5. The members of a class can be
a) only private b) only public c) only protected d) private, protected or public
6. The advantages of inline functions are
a) Inline functions are compact functions
b) The size of the object code is reduced
c) Both a and b
d) none of the above
7. It is not possible to initialize different ----- with different initial values using default constructors.
a) objects b) class c) variables d) functions
8. Derived class is also called as
a) abstract class b) base class c) virtual class d) subclass
9. Which of the following is initialization of pointers (or) assignment of pointers?
a) datatype *pointervariable;
b) datatype &pointervariable;
c) pointervariable=&variablename;
d) pointervariable=*variablename;

10. Each row in a table is called as
a) attribute b) record c) domain d) field
 11. Which of the following belongs to DDL in SQL?
a) insert b)create c)delete d)grant
 12. Which of the following consists of 2 or more attributes that uniquely identify an entity occurrence
a) primary key b)foreign key c)candidate key d)composite key
 13. The location of a resource on the internet is given by
a) email b) IP c)protocol d)url
 14. Which of the following is not a webbrowser?
a) google chrome b)internet explorer c)gmail
d)moxilla firefox
 15. Which of the following is text resizing tag?
a) <big> b)<small> c) <h1> d)all of the above
- (E.F Codd, Hashing, Candidate, Data warehousing, Instances)
16. ----- keys are the keys which are not currently selected as primary key.
 17. ----- is the repository of an organization's electronically stored data.
 18. Father of relational algebra is -----
 19. ----- is set of values in each row.
 20. Algorithm used in random or direct access file organization is -----

Part-B (4*2=8 marks)

Answer any 4 questions. Each question carries 2 marks

21. Prove complementarity law
22. Give the symbol and explain the working of OR gate.
23. Mention any 2 features of destructor.
- 24.What is the use of seekg() and seekp() functions?
- 25.Write any 2 features of a Db system.
- 26.Write the syntax and example of UPDATE command,
- 27.Name the DML commands.

Part-C (4*3=12 marks)

Answer any 4 questions. Each question carries 3 marks

28. Explain any 3 components of motherboard.
29. Explain the types of linked list
- 30.What is a pointer? Give the declaration and initialization of a pointer.
31. What is a stream? Name the streams generally used for file I/O.
32. Write a short note on ISAM.
33. What are the advantages of E-commerce?
34. Write the structure of HTML program.

Part-D (4*5=20 marks)

Answer any FOUR questions. Each question carries 5 marks

35. Write an algorithm for Insertion Sort.

36. Give the PUSH() and POP() algorithm for a stack.
37. Write the applications of object oriented programming
38. Explain the characteristics of Friend functions.
39. Explain the implicit call for parametrized constructors.
40. Explain single level inheritance using programming example.
41. What is topology? Explain any 2 topologies of networking.

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

42. Reduce $F(W,X,Y,Z)=\sum(0,1,2,3,5,7,8,9,10,11,13,15)$ using K Map.
43. Write a program to create a class in the name of 'studentinfo' with the following data members and member functions and also create an object in the name of student with 50 elements.
 - 1) student name
 - 2) age
 - 3) inputdata()
 - 4) outputdata()
44. Using the given SQL table of ebill, write the appropriate SQL query.

RRNo	Name	billdate	units	amount
R0001	FFFF	5-01-2025	210	1470
R0002	GGGG	5-01-2025	300	2100
R0003	HHHH	5-01-2025	260	1820

- a) Develop the table with the above fields.
- b) Display the structure of the table
- c) Find the total number of customers
- d) Find the total units consumed by all the customers
- e) Display all customer records
