**Part – D**

**Answer any *FOUR* questions. Each question carries *FIVE* marks 05X04=20**

1. Write an algorithm for enqueue() & dequeue() operation in queue?
2. What is linked list? Explain the different types of linked list?
3. Explain the different application of OOPs?
4. What is inline function? Write a simple program to demonstrate inline function?
5. What is constructor? Explain with a program to demonstrate invoking parameterize constructor by explicit call?
6. What is inheritance? Define virtual base class & abstract class in inheritance?
7. What is data model? Explain the different types of data model?
8. Explain briefly about guided media of data transmission?

**Part – E**

**Answer any *TWO* questions. Each question carries *FIVE* marks 05X02=10**

1. A. Solve using K map F(A,B,C,D)=∑(0,1,3,4,5,6,7,9,10,11,13,14,15)

B. Solve using K map F(X,Y,Z)=

1. A. Explain the features class in detail with syntax?

B. what are class members? Explain how to create a object & explain how to access class members using object of a class?

1. A. Write a SQL Command to develop following Student table

|  |  |
| --- | --- |
| Column Name | Data type |
| Emp\_Id | Number(4) |
| EName | Varchar(20) |
| designation | Varchar(20) |
| Salary | Number(5,2) |

1. Create a table named emp with above details
2. Insert 3 records into table
3. Add residence varchar(20) to the table
4. Display the details of emp who earning montly salary of 50,000/-
5. Calculate the annual salary with a virtual column named annual salary and display it?

B. Explain Group function in SQL?