

Group A

2. A) what is database? Explain the benefits of a database?

B) Explain different types of data language.

3. A) what do you understand by DBA and how they play an important role?

B) Differentiate between instances and schemes?

4. A) what do understand by data integrity constraints and data abstraction?

B) What is hashing? Explain different types of hashing.

5. Write SQL statements for the following:

Student (name, roll_no, gender, phone_no)

I) To create table

II) Insert row in table

III) Display the value

IV) Drop the table

6. Write short notes on any two of the following:

A) Database manager

B) boyce-codd normal form

C) relation algebra

D) Functional dependency

E) Query processor

Group B

7. A) What is an array? What are the limitations of an array?

B) Sort following data set using bubble sort. Show all steps in details: 55,45,37,24,56,32,28. 8. Write a menu driven program in 'C' which performs the following operation on strings:

I) Check if one string is substring of another.

II) Count the length of string.

III) Exit

9. A) Explain selections sort techniques with an example.

B) Write a C program to create and display singly circular linked list.

10. A) write a function to insert elements in a Binary search tree.

B) Differentiate recursion and iteration with examples.

11. Write short notes on any two of the following:

I) Double linked list

II) Stack

III) Circular queue

IV) Non-linear data structures