

**KANDI RAJ COLLEGE**

**BSC SEM V [GEN]  
(COMPUTER SCIENCE)**

**TIME -60 minutes**

**PRACTICAL EXAM [UG-G-DSE-P-501A]**

**ANALYSIS OF ALGORITHMS AND DATA STRUCTURES [DSE-1A][NEW SYLLABUS ]**

Full Marks : 20[Experiment(s): 10; Notebook: 5; Viva: 5]

**ANSWER ANY TWO QUESTIONS:**

**(2X5=10)**

1. Write a program in C to find out whether a matrix is symmetric or not.
2. Write a program that implements insertion sort for a linked list of integers.
3. Write a C program which implement Bubble sort .
4. Write a program in C which implements PUSH and POP operations.

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(COMPUTER SCIENCE)**

**TIME -60 minutes**

**PRACTICAL EXAM [UG-G-DSE-P-501A]**

**DATABASE MANAGEMENT SYSTEMS [DSE-1A][OLD SYLLABUS ]**

Full Marks : 20[Experiment(s): 10; Notebook: 5; Viva: 5]

**ANSWER ANY TWO QUESTIONS:**

**(2X5=10)**

1. a) Write code in SQL which creates a CUSTOMERS table with an ID as a primary key and NOT NULL are the constraints showing that these fields cannot be NULL

Field	Type	Null	Key	Default	Extra
ID	int(11)	NO	PRI		
NAME	varchar(30)	NO			
AGE	int(11)	NO			
ADDRESS	char(55)	YES		NULL	
SALARY	decimal(18,2)	YES		NULL	

- b) Next insert atleast 5 records in the same table.
  - c) Write SQL code which would fetch the ID, Name and Salary fields from the CUSTOMERS table, where the salary is greater than 2000.
  - d) Write SQL code which would fetch the ID, Name and Salary fields from the CUSTOMERS table, where the salary is greater than 2000 and the age is less than 25 years.
  - e) Write SQL code which will DELETE a customer, whose ID is 6.
2. a) Write code in SQL which creates a CUSTOMERS table with an ID as a primary key and NOT NULL are the constraints showing that these fields cannot be NULL

Field	Type	Null	Key	Default	Extra
ID	int(11)	NO	PRI		
NAME	varchar(20)	NO			
AGE	int(11)	NO			
ADDRESS	char(25)	YES		NULL	
SALARY	decimal(18,2)	YES		NULL	

- b) Next insert atleast 6 records in the same table.
- c) Write SQL code which would sort the result in an ascending order by NAME and SALARY.
- d) Write SQL code which would display all the records from the CUSTOMERS table, where the SALARY starts with 200.
- e) Write SQL code which would fetch the ID, Name and Salary fields from the CUSTOMERS table for a customer with the name Akash.

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