



ACE

Engineering College

(NBA ACCREDITED B.TECH COURSES & NAAC "A" GRADE)

An Autonomous Institution

Ankushapur (V), Ghatkesar (M), Madchal.Dist – 501 301

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

II B.TechII Semester Regular(R18) (2020-21)

Sub:DBMS

ASSIGNMENT –I:

1. Explain database system preferred over the file system with suitable examples?
2. Consider the following relational schema to write queries in SQL.

Patient(pid,pname,age,city)

Admit(id,wardno,admi)

Ward(wardno,wname,nofbeds)

- a) Display all patient names of Hyderabad and whose age is above 50.
- b) Display all the details of ICU and Emergency ward.
- c) Display patient name and age of those patients whose name starts with 's'.
- d) Find average age of all patients.
- e) Display the ward details in alphabetical order of their name and decreasing order of no of beds?

3. Consider the following relational schema:

Suppliers(sid, sname, city)

Supply(sid,partid)

Parts(partid:, partname, color)

a)Find supplier names of city Bangalore.

c) Find supplier name supplying partid 56.

d) Find supplier names and partname supplying red color parts

4.Explain various users of database system and explain with a neat diagram how they are interacting with database?

5.what is meant by attribute closure? Find AB^+, BC^+, CD^+, G^+ and BG^+ of relation $R(ABCDEFGH)$ with the following FD($AB \rightarrow C, BC \rightarrow DE, CD \rightarrow G, G \rightarrow AH$) and also list all candidate keys?

6.what is normalization?What are the conditions required for a relation to be in 2NF,3NF and BCNF.

7.what is closure of functional dependency? Compute the closure of the following set of following FD's for a relation $R(ABCDEF)$ with FD($AB \rightarrow C, C \rightarrow DE, E \rightarrow F$).Write properties with which a dependency is derived in F^+

8.what are the properties of decomposition? Verify decomposition properties for a relation $R(ABCD)$ with FD, $\{BC \rightarrow C, C \rightarrow A, D \rightarrow B\}$ decomposed into $R_1(AC)$ and $R_2(BCD)$

ASSIGNMENT –II:

1. create the following table with corresponding columns mentioned and insert values into the table created

Sailors(sid, sname, rating, age); Boats(bid, bname, color);

Reserves(sid: ,bid, day).

- 2.Find the names of all the sailors?

3. Find details of all sailors with rating above 7?
4. Find the names of sailors who reserved boat no:13
5. Find sid's of sailors who reserved a red boat.
6. Find details of the sailors who reserved a green boat
7. Find the colors of the boat reserved by John
8. Find the names of sailors who reserved at least one boat.
9. Find the name of the sailors who reserved red and green boats.
10. Find the names of youngest sailor at each rating level.