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**First Year BCA(Science)**  
**BCA12102 Database Management System**  
**(Semester II)**

**Program:** BCA  
**Program Specific:** BCA(Science)  
**Course Type:**  
**Paper:**

**Credits:** 2  
**Time:** 2 Hours  
**Max. Marks:** 30  
**SET:** A

**Instructions to the candidate:**

- 1) All questions are compulsory.
- 2) Figures to the right indicate full marks.
- 3) Draw a well labelled diagram wherever necessary.

**SECTION: A**

**Q1) Answer the following**

**[5 X 1= 5]**

1. What is Fixed Length Records?
2. Define Schema.
3. What is Primary key?
4. Define Attribute.
5. Define 'tuple'.

**SECTION: B**

**Q2) Answer any five of the following.**

**[5 X 2 =10]**

1. What do you mean by physical and logical file?
2. Write a Short note on Database Manager.
3. What is Data Abstraction?
4. Explain aggregate function in SQL.
5. Describe Integrity Constraint.
6. What is DDL?
7. What is file Organization? List its types.

**SECTION: C**

**Q3) Attempt any two of the following**

**[2 X 5 = 10]**

1. Create a table employee with attributes employee no, name, address, salary and department no. Execute the following query.
  - i Display all employees of department 30.
  - ii Insert 5 records into department table.
  - iii Select distinct department no from emp.
  - iv Display employee information where deptno is 5.

2. Create the following tables (primary keys are underlined.)Employee.  
(eno,ename,designation,sal)Department(dno,dname,dloc) Execute following queries.
  - i. Insert 2 employee records for each department.
  - ii. Increase salary of “managers” by 15%.
  - iii . Display all information from employee where employee id is 6.
  
3. Consider the following relations:  
Account (account\_no, acc\_type, balance, branch)  
Customer (cno, cname, city)  
The relationship is as follows: Customer-Account : **one-to-many** with  
Fee as a descriptive attribute  
Create the above database in PostGreSQL. Execute the following queries in PostGreSQL
  - i. List the details of all the customer from\_city.
  - ii. Display average of balance.
  - iii. Delete the record of ‘M G Road’ branch.
  
4. Explain different types of operations carried out on a database file.

**SECTION: D**

**Q4) Attempt any one of the following**

**[5 X 1 = 5]**

1. Draw ER Diagram of Hotel Management System.
2. Draw ER Diagram of Library Management System.

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