19:27

Notes

Sample screenshot 2

19:27

Notes

Sample screenshot

19:28

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Sample screenshot 3

Total No. of Questions : 5]

SEAT No. :

P2124

[Total No. of Pages : 4

[5803]-104

First Year B.B.A. (CA)

CA-104 : DATABASE MANAGEMENT SYSTEM

(CBCS 2019 Pattern) (Semester -I)

Time : 2½ Hours] ***[Max. Marks : 70***

Instructions to the candidates:

1) ***All questions are compulsory.***
2) ***Figures to right indicate marks.***

Q1) Attempt any Eight of the following: **[16]**

a) Enlist four basic file operations.

b) Define Data and Information.

c) Define the term Cardinality.

d) Explain the use of COUNT () with example.

e) What is Insertion Anomaly?

f) Write two categories of Data Models.

g) Explain character data type of SQL.

h) Define Candidate key.

i) Write two advantages of Sequential file organization.

j) Define Functional Dependency.

Q2) Attempt any Four of the following: **[16]**

a) Explain sequential file organization.

b) Write a note on Data Dictionary

c) Explain object oriented model.

d) Explain aggregate function in SQL with example.

e) List various DDL command. Explain any one with example.

P.T.O.

Q3) Attempt any Four of the following: **[16]**

a) Consider the following Entities and Relationships & solve the queries:

Department (dept_no, dept_name, location)

Employee (emp_no, emp_name, address, salary, designation)

Relation between Department and Employee is **One to Many**

Constraint: Primary key, salary should be > 0

- Find total salary of all computer department employees.
- Find the name of department whose salary is above 10000.

b) Consider the following Entities and Relationships & solve the queries:

Book (Book_no, title, author, price, year_published)

Customer (cid, cname, addr)

Relation between Book and Customer is **Many to Many**.

Constraint: Primary key, price should be >0.

- Display author wise details of book.
- Display customer name that has purchased more than 3 books.

c) Consider the following Entities and Relationships & solve the queries:

Musician (mno, mname, addr, phno)

Album (title, copy_right_date, format)

Relation between Musicians and Album is **One to Many**.

Constraint: Primary key.

- Display all albums composed by 'A R Rehman'.
- Display musician details who have composed Audio album.

d) Consider the following Entities and Relationships & solve the queries:

Sailor (sid, sname, age)

Boats (bid, bname, color)

Relation between Sailer and Boats is **Many to Many**

Constraint: Primary key, age should be > 0.

- Display details of all boats sailed by sailor 'Ram'.
- Display Sailor names working on blue boat.

e) Consider the following Entities and Relationships & solve the queries:

Account (ano, branchname, balance)

Customer (cust_no, cust name, street, city)

Relation between Account and Customer is **Many to Many.**

Constraint: Primary key, balance should be > 500.

- Display customer details with balance between 100000 and 200000.
- Display customers having more than two accounts in Chinchwad branch.

Q4) Attempt any Four of the following: **[16]**

a) Explain dense index and sparse index.

b) Explain with example the Degree of Relationship Set

c) Explain the following aggregate functions:

i) SUM()

ii) MIN()

d) Consider the following Entities and Relationships & solve the queries:

Property (pno, desc, area, rate)

Owner (owner_name, addr, phno)

Relation between owner and Property is **One to Many.**

- Display property owned by Mr.Patil'.
- Display all properties with owner name that located in Chinchwad area.

e) Consider the following Entities and Relationships & solve the queries:

Branch (bname, bcity, assets)

Loan (loan no, amount)

Relation between Branch and Loan is **One to Many**

- Display total loan amount given by ABC branch.
- Find the name of branch that have assets located in Mumbai.

Q5) Write short notes on any Two of the following: **[6]**

a) Advantages and Disadvantages of RDBMS.

b) Normalization

c) Generalization in ER Modelling.

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