

VCD-2503/5

Additional
Exam 2019

S.YCS - Computer
Sem - III
25/03/2015

COMPUTER III-SYCS-SEM-III-75 MARKS-2 ½ HRS.

Note: i) All questions are compulsory.

ii) Figures to the right indicate full marks.

iii) Give query example wherever necessary.

Q.1 Attempt any Four.

[20]

a) Explain the terms:

i) Primary Key

ii) Foreign Key

iii) Super Key

b) What do you mean by DBMS? Explain the area where the databases are used.

c) Explain DBMS structure.

d) Write a short note on – aggregation.

e) Write a short note on Relational Model.

f) Explain the types of attributes used in ER model.

g) How weak entities become a strong entity?

h) What do you mean by Normalization? Explain 1NF and 2NF.

Q.2 Attempt any Four.

[20]

a) Explain DML statements used in SQL. Give example of each.

b) What do you mean by join? Explain equi-join and left-join with example.

c) Write a short note on –

i) Union

ii) Intersection

iii) Difference

d) Explain all aggregate function used in DBMS.

e) Explain tuple relational calculus.

f) Explain following functions:

i) DATEADD()

ii) DATEDIFF()

iii) GETDATE()

iv) DATENAME()

v) YEAR()

g) What are the fundamental operations used in relational algebra?

h) Consider following tables-

Customer(custno,cname,city)

Product(productno,description,rate)

Orders(orderno,custno,productno,orderdt,qty,amt)

Solve following queries –

- i) Find out the name of customer who has placed the orders for product 'Kurta'.
- ii) Add a column called 'contactno' of the data type 'number' to the customer table.
- iii) Write a query to count number of customers in each city.
- iv) Find out the products whose name starts with 'S' and third letter as 'I'.

Q.3 Attempt any four.

[20]

- a) What are views? What are its advantages?
- b) What is the difference between a table and a view?
- c) Explain all types of trigger.
- d) Create a stored procedure to swap two numbers. Write a PL/SQL block to execute the same.
- e) What is the use of index? Explain with syntax and give proper example.
- f) Write a short note on- Heap File.
- g) Write a short note on – Tree index.
- h) What do you mean by stored procedure? What are its benefits? Explain with syntax.

Q.4 Attempt any three.

[15]

- a) What do you mean by data abstraction? Explain all three levels of it.
- b) Write a short note on- Specialization.
- c) Explain any five string functions used in SQL.
- d) What is a subquery? Give an example of a subquery with EXISTS and ANY operator.
- e) What do you mean by a trigger? How to create trigger in SQL?
- f) Explain hash indexes with example.