

**B.Tech. SEM -V ( Computer) 2014 Course (CBCS) : SUMMER - 2019**

**SUBJECT-DATABASE MANAGEMENT SYSTEM**

Day: Tuesday  
Date: 14/05/2019

S-2019-2657

Time: 10.00 AM TO 01.00 PM  
Max. Marks: 60

**N.B.:**

- 1) All questions are **COMPULSORY**.
- 2) Figures to the right indicate **FULL** marks.
- 3) Draw neat diagrams **WHEREVER** necessary.
- 4) Assume suitable data, if necessary.

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- Q.1** a) Explain importance of Database Administrator. (05)  
b) Discuss in detail significance of DBMS over File based system. (05)

**OR**

- Q.1** Draw & explain architecture of DBMS Life Cycle. (10)
- Q.2** Construct an E-R model for Online movie ticket management system & normalize it upto 3NF. (10)

**OR**

- Q.2** Consider the relation R(ABCDEF) with the following functional dependencies: (10)  
{ $B \rightarrow E, C \rightarrow D, A \rightarrow B$ }
- i) Identify different keys of Relation.
  - ii) Is relation in 3NF? If so, Identify.
- Q.3** State & explain Relational Integrity. (10)

**OR**

- Q.3** Consider the following schema: (10)  
Orders (ord\_no, purch\_amt, ord\_date, cust\_id, salesman\_id)  
Customer (cust\_id, cust\_name, city, grade, salesman\_id)  
Salesman (salesman\_id, name, city, commission).  
Write SQL query for following:
- i) Prepare a list with salesman name, customer name & their cities for the salesmen & customer who belong to the same city.
  - ii) Make a list with order no, purchase amount, customer name & their cities for those orders which order amount between 500 & 2000.
  - iii) Find which salesman is working for which customers.
  - iv) Find the list of customers who appointed a salesman for their jobs who gets a commission from the company is more than 12%.

- Q.4** Consider the following schema: (10)  
Hotel (hotel\_no, hotel\_name, city)  
Room (room\_no, hotel\_no, type, price)  
Booking (hotel\_no, guest\_no, datefrom, dateTo, room\_no)  
Guest (guest\_no, guestname, guestAddress).  
Write SQL query for following:
- i) List all hotels in Pune.
  - ii) List of all rooms in Taj hotel.
  - iii) Find all details of room having cheapest rent in Taj hotel.
  - iv) List of all guests who stayed in Taj hotel on 31<sup>st</sup> December.
  - v) List of all hotels along with total number of rooms in each hotel.

**P.T.O.**

**OR**

**Q.4** Explain operations on Views with suitable SQL queries. **(10)**

**Q.5** State different approaches for Concurrency control. **(10)**

**OR**

**Q.5** Discuss in detail, Query cost for following operations: **(10)**

- i) Selection operations.
- ii) Join operations.

**Q.6 a)** Explain in detail OLAP. What are different operations on CUBE? **(05)**

**b)** Write short note on: Bigdata. **(05)**

**OR**

**Q.6** Explain in detail, process of Data mining with suitable diagram. **(10)**

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