

B.Tech - sem-IV, (2014 course), IT
winter-2018

B.Tech. SEM -IV Info. Tech. 2014 Course (CBCS) : WINTER - 2018

SUBJECT: DATABASE MANAGEMENT SYSTEM

Day: Friday
Date: 16/11/2018

W-2018-2355

Time: 02.30 PM TO 05.30 PM
Max. Marks: 60

N.B:

- 1) All questions are **COMPULSORY**.
- 2) Figures to the right indicate **FULL** marks.
- 3) Draw neat and labeled diagrams **WHEREVER** necessary.

Q.1 With the help of neat diagram, explain the system structure of DBMS. (10)

OR

Q.1 What is an ER diagram? What it is used for? List and explain the features of extended ER diagram. (10)

Q.2 What is functional dependency and multivalued dependency? Explain with an example of each. (10)

OR

Q.2 Explain the Cartesian product and renaming operation of relational algebra with suitable example. (10)

Q.3 List and explain the data definition commands in SQL with suitable examples of queries. (10)

OR

Q.3 What is a nested subquery? Why nesting of queries is required? Explain a suitable example of nested query. (10)

Q.4 Explain the Control structures in PL/SQL with their syntax. (10)

OR

Q.4 What are the types of variables that can be declared in PL/SQL? Explain the declaration, input and output of variables in PL/SQL with example. (10)

Q.5 What are the techniques used in database recovery management? Explain any one in detail. (10)

OR

Q.5 Why two phase locking protocol (2PL) is required? How deadlock can be prevented? (10)

Q.6 What is unstructured data? How is unstructured data processed? Why are traditional databases not suitable for unstructured data? (10)

OR

Q.6 What are the various features of Big Data? What are the emerging technologies for Big Data processing? (10)

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