

**B.Tech. SEM -IV Info. Tech. 2014 Course (CBCS) : SUMMER - 2019**  
**SUBJECT: DATABASE MANAGEMENT SYSTEM**

Day: Thursday  
Date: 30/05/2019

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

**S-2019-2620**

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**N.B:**

- 1) All questions are **COMPULSORY**.
  - 2) Figures to the right indicate **FULL** marks.
  - 3) Draw neat and labeled diagrams **WHEREVER** necessary.
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**Q.1** What is data abstraction? Explain the level of data abstraction with the help of neat diagram. **(10)**

**OR**

**Q.1** Elaborate the database design process with the help of example. **(10)**

**Q.2** State and explain the features of good database design. **(10)**

**OR**

**Q.2** List and explain the fundamental operations of relational algebra with an example of each. **(10)**

**Q.3** What are views? Why they are used? Differentiate between views and tables. State the syntax of creating view in SQL. **(10)**

**OR**

**Q.3** What are triggers? How do trigger help in monitoring database operations. **(10)**

**Q.4** Differentiate between functions and procedures. Write syntaxes of same. **(10)**

**OR**

**Q.4** What are exceptions? How are exceptions handled in PL/SQL block? **(10)**

**Q.5** What is time stamping? Explain any one time stamping technique in detail. **(10)**

**OR**

**Q.5** Why serializability and concurrency control is required in database management system? **(10)**

**Q.6** What is Hadoop database? How is Hadoop database different from traditional database? **(10)**

**OR**

**Q.6** With the help of neat diagram, explain the architecture of MongoDB. **(10)**

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