

B.SC. (I. T.) SEM. - I (2011 COURSE) : SUMMER - 2018
SUBJECT : DATABASE MANAGEMENT SYSTEMS

Day : **Thursday** Time : **02.30 pm to 04.30 pm**
Date : **31/05/2018** Max. Marks : 40
S-2018-0971

N. B. :

- 1) Attempt **ANY FIVE** questions.
 - 2) Figures to the right indicate **FULL** marks.
 - 3) Explain with examples/ diagrams **WHEREVER** necessary.
-

- Q. 1** a) Explain the following operators in SQL with examples: (04)
- i) Distinct
 - ii) Group by
 - iii) Like
 - iv) IS NULL
- b) Explain ACID properties of transaction, where a DBMS must ensure to maintain database. (04)
- Q. 2** Explain the importance of Normalization in database. Explain 3-NF with suitable example, stating how it removes anomalies of 2-NF. (08)
- Q. 3** What are Aggregate functions in SQL? Explain these functions with an example of each. (08)
- Q. 4** What are Joins? Explain three types of join with suitable examples. (08)
- Q. 5** a) Explain Concurrency Control mechanism in Database Management Systems. (04)
- b) Explain the concept of OODBMS. Why OODBMS is needed? (04)
- Q. 6** What is Distributed Database? Distinguish between Distributed and Stand-alone database. What are the types of Distributed database? (08)
- Q. 7** Write note on following: (08)
- a) Weak entity
 - b) Relation
 - c) Generalization
 - d) DML

* * * * *