

S.D.E.
B.C.A. (2004 Course Sem- III : SUMMER - 2019
SUBJECT: DATABASE DESIGN

Day: Wednesday
Date: 15/05/2019

Time : 02.00 PM TO 05.00 PM
Max. Marks : 80

S-2019-4967

N.B.:

- 1) Attempt any **FIVE** Questions from section – I and Any **TWO** Questions from Section – II
- 2) Figures to the right indicate **FULL** Marks
- 3) Answers to both the sections should be written in **SAME** answer books.

SECTION-I

- Q.1** What are the advantages of DBMS over traditional file processing system? **(10)**
- Q.2** What is data independence? Explain the different types of data independence. **(10)**
- Q.3** What is network data model? Explain its advantages over hierarchical data model. **(10)**
- Q.4** What is concurrency control? Explain timestamp based concurrency control mechanism with example. **(10)**
- Q.5** Explain log based recovery techniques in detail. **(10)**
- Q.6** Explain the concept of object oriented database in detail. **(10)**
- Q.7** Write short notes any **TWO** of the following : **(10)**
- a) Database languages
 - b) Functional dependencies
 - c) Shadow paging

SECTION-II

- Q.8** Draw an E-R Diagram for Hospital Management System. **(15)**
- Q.9** What is normalization? Explain 1NF, 2NF and 3NF with an example. **(15)**
- Q.10** What is distributed database? Discuss the relative advantage and disadvantage of distributed database over centralized database. **(15)**

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