



MS – 571

II Semester B.C.A. Examination, May 2016
(CBCS) (2014-15 and Onwards)
COMPUTER SCIENCE
BCA – 204 : Database Management System

Time : 3 Hours

Max. Marks : 70



Instruction : Answer *all* Sections.

SECTION – A

- I. Answer **any ten** questions. **Each** question carries **two** marks. (10×2= 20)
- 1) Define DBMS. Mention any two advantages of DBMS.
 - 2) What do you mean by DBMS catalog and metadata ?
 - 3) Give any four functions of DBA.
 - 4) Name any four types of attributes.
 - 5) What do you mean by generalization and specialization ?
 - 6) Define Primary key and Foreign key.
 - 7) Define Functional dependency.
 - 8) How are storage devices classified ?
 - 9) What are the applications of Relational algebra in RDBMS ?
 - 10) Mention the different categories of SQL statements.
 - 11) What is an exception ? Mention major types of exceptions.
 - 12) What are the desirable properties of transactions ?

P.T.O.



SECTION – B

- II. Answer **any five** questions. **Each** question carries **ten** marks. (5×10= 50)
- 13) a) Explain the functions of DBMS. 6
b) What is data independence ? Explain briefly the two types of data independence. 4
- 14) a) Define relationship. Explain briefly cardinality ratio constraint of Relationships. 5
b) Explain the E-R notations used in database schema design. 5
- 15) a) Explain various methods of allocating file blocks on disks. 6
b) Explain briefly RAID technology. 4
- 16) a) Explain briefly insertion, updation and deletion anomalies in database. 3
b) What is normalization ? Explain briefly the various types of Normal forms with examples. 7
- 17) a) Explain briefly schema based constraints in relational data model. 5
b) Explain selection and projection operations in relational algebra with an example each. 5
- 18) a) Explain briefly DDL statements with syntax and examples. 4
b) What is JOIN operation ? Explain different types of joins with syntax and example. 6
- 19) a) What is a database trigger ? Explain any four types of trigger. 5
b) Explain While.. Loop statement in PL/SQL with an example. 5
- 20) a) Define transaction. Explain briefly different states of transaction with a neat state transition diagram. 6
b) What is time stamp ? Explain briefly two methods of generating time stamps. 4