



- 14 -

II Semester B.C.A. Degree Examination, May/June 2014 .
(Y2K8 Scheme) (2008-09 and Onwards)
(F + R – 70 – 2011-12 and Onwards/R – 60 – Prior to 11-12)
COMPUTER SCIENCE
BCA 205 : Database Management Systems

Time : 3 Hours

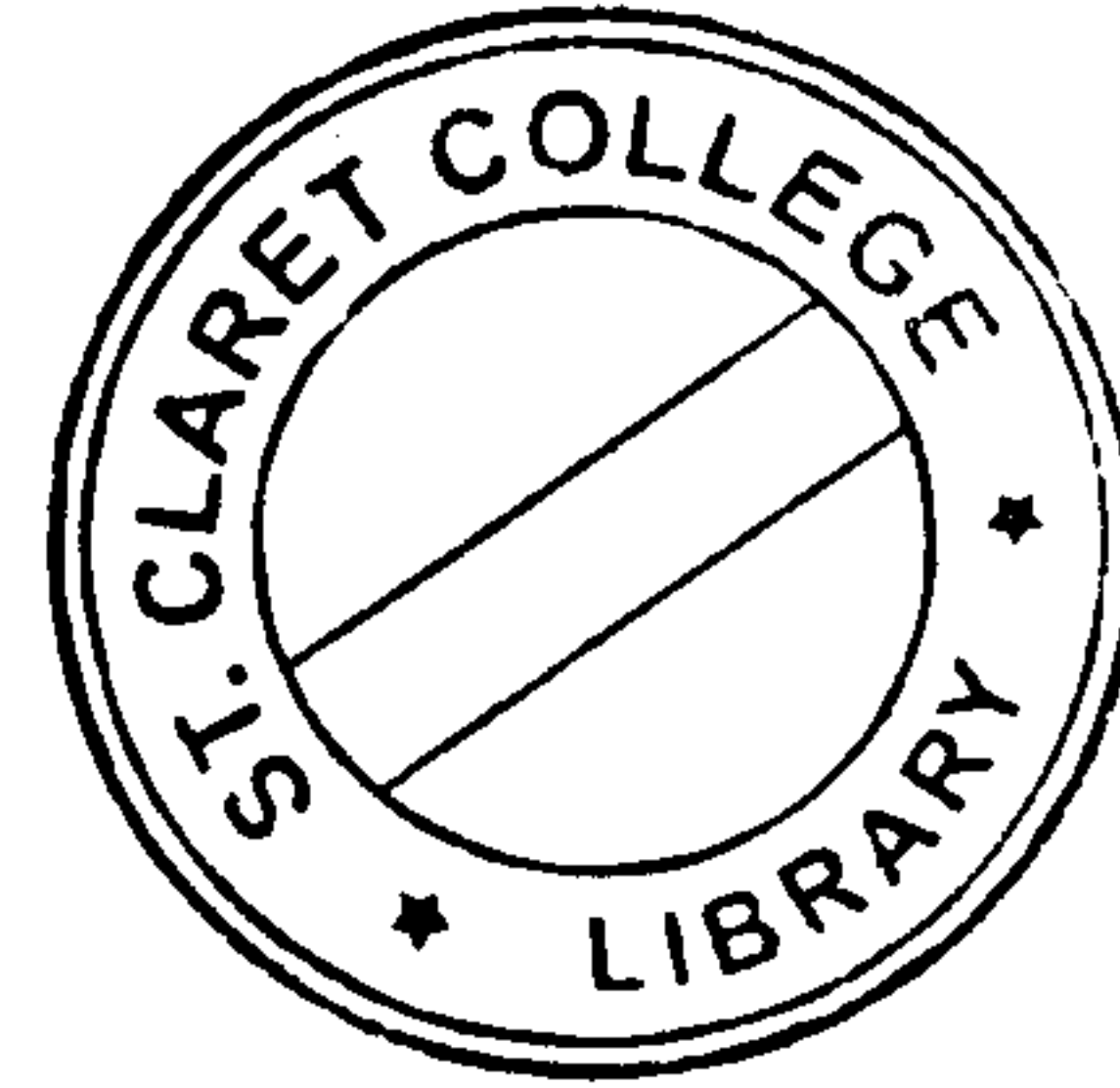
Max. Marks : 60/70

- Instructions:** 1) Section **A, B, C**, is common to **all**, Section **D** is applicable to the students who have taken admission from **2011-12 onwards**.
2) **70** marks for students from **2011-12 onwards**
60 marks for **repeater** students prior to **2011-12**.

SECTION – A

I. Answer **any ten** questions. **Each** question carries **one** mark. (10×1=10)

- 1) Define Database.
- 2) What is Entity ? Give example.
- 3) What is network data model ?
- 4) Define schema.
- 5) What is an attribute ? Give an example.
- 6) What is primary key ?
- 7) What is Hashing ?
- 8) What is SQL ?
- 9) What is relational algebra ?
- 10) What is DML ? Give example.
- 11) What is a cursor ?
- 12) Define transaction.





SECTION – B

II. Answer **any five** questions. **Each** question carries **three** marks : **(5×3=15)**

- 13) Explain the properties of database.
- 14) Briefly explain database languages.
- 15) Define the terms :
 - i) Track
 - ii) Cylinder
 - iii) Sector.
- 16) Explain Boyce Codd Normal form with an example.
- 17) What is relational schema and relational instance ? Give one example.
- 18) What is view and its advantage ?
- 19) What is trigger ?
- 20) Discuss the types of locks in brief.

SECTION – C

III. Answer **any five** questions. **Each** question carries **seven** marks. **(5×7=35)**

- 21) Explain client server architecture with neat diagram.
- 22) Explain the following terms with at least one example.
 - a) Super key
 - b) Foreign key
 - c) Weak entity.
- 23) Explain memory hierarchies and storage devices.
- 24) Define functional dependency. What are its properties ?
- 25) Explain selection and projection operation in relational algebra with an example.



26) Explain the following SQL commands with examples.

- i) Create
- ii) Alter
- iii) Select
- iv) Truncate.

27) a) Explain PL/SQL control statements with an example.

b) Write PL/SQL code to find the factorial of a given number.

28) Explain the concepts of commit and roll back.

SECTION – D

Note : Section **D** should be answered by students of **2011** batch onwards only.

IV. Answer **any one** question. **Each** question carries **ten** marks : **(1×10=10)**

29) a) Explain the responsibilities of DBA.

b) Write any five applications of DBMS. **(5+5)**

30) a) Describe the different notations used in ER diagram.

b) Construct an ER-diagram for BCA department database. **(5+5)**
