

Roll No. ....

**97671**

**BCA 3rd Semester (New)  
Examination – November, 2018**

**INTRODUCTION TO DATABASE SYSTEM**

**Paper : BCA-203**

***Time : Three Hours ]***

***[ Maximum Marks : 80***

*Before answering the questions, candidates should ensure that they have been supplied the correct and complete question paper. No complaint in this regard, will be entertained after examination.*

**Note :** Attempt *five* questions in all. Question No. 1 is *compulsory* and attempt *four* more questions by selecting *one* question from each Unit. All questions carry equal marks.

1. Answer the following questions :

- (a) What do you mean by data redundancy ?
- (b) Define the term catalog and metadata in DBMS.
- (c) What is an instance ?
- (d) What do you mean by database schema ?
- (e) Define data integrity.
- (f) Name any *two* popular relation database management softwares.
- (g) Explain concurrency in database system.

97671-6,650-(P-3)(Q-9)(18)

P. T. O.

(h) What is the need of database security ?

#### UNIT – I

2. (a) Discuss the main characteristics of the database approach. How it differs from traditional file system.
- (b) What are the different types of database users who interact with the database system ? Explain each in brief.
3. What do you mean by DBMS ? Explain the various functional components of DBMS with the help of suitable diagram. Also discuss the advantages and disadvantages of DBMS.

#### UNIT – II

4. What do you mean by data independence ? Why it is important to maintain data independence in a database ? Explain with the help of example the differences between logical and physical data independence.
5. Explain the client server architecture of database management system. Also write its advantages and disadvantages.

#### UNIT – III

6. (a) Define entity, entity type, entity set and attribute with the help of example.
- (b) What is mapping cardinalities ? Explain various types of mapping cardinalities.
7. (a) Design an E-R diagram for Educational Institute System. Make your own assumptions about the system.

97671-6,650-(P-3)(Q-9)(18) ( 2 )

(b) Define the term data model ? Explain different types of data models.

#### UNIT – IV

8. What is the need of normalization ? Define and discuss 1NF, 2NF, 3NF and BCNF by giving suitable example for each.
9. What is SQL ? What are the major components of SQL ? Write syntax for creating a table, inserting values in the table, updating values in the table and selecting fields. Use suitable example for each.

<http://haryanapapers.com>

Whatsapp @ 9300930012

Your old paper & get 10/-

पुराने पेपर्स भेजे और 10 रुपये पायें,

Paytm or Google Pay से

97671-6,650-(P-3)(Q-9)(18) ( 3 )