Roll No. ....

X–3565

Diploma in Computer Application
(Second Semester) EXAMINATION, June, 2014

DATABASE MANAGEMENT SYSTEM

(DCA–106)

Time : Three Hours]　　　　　　　[*Maximum Marks : 100*

[*Minimum Pass Marks : 33*

Note : Attempt any *two* parts from each question. All questions carry equal marks.

Unit—I

1. (a) What is DBMS ? Discuss different levels of data abstraction.

　(b) Differentiate between Relational, Network and Hierarchical Approaches.

　(c) Explain the functions of storage manager in DBMS.

Unit—II

2. (a) Explain the terms entities, attributes and relationships.

　(b) Define ER-diagram. Discuss its major components. Draw ER-diagram corresponding to customers and loans.

　(c) What do you understand by Aggregation ? Write its utility with suitable example.

Unit—III

3. (a) What is Relational Algebra ? Write formal definition of it.

   (b) Define Cartesian product and selection operations. Explain the utility of natural join to combine both operations with the help of suitable example.

   (c) Differentiate between unique, primary key and foreign keys with example.

Unit—IV

4. (a) Explain pitfalls in relational database design.

   (b) Define function dependencies. Discuss Armstrong's axioms of inference for it.

   (c) What is Join Dependency ? Explain its utility in 5NF with suitable example.

Unit—V

5. (a) What do you mean by SQL ? Discuss different parts of it.

   (b) Consider the insurance database :

   person (ss#, name, address)

   car (license, year, model)

   accident (date, driver, damage-amount)

   owns (ss#, license)

   logs (license, date, driver)

   Write queries for the following :

   (i) Add a new customers to the database.

   (ii) Find car model belonging to "Raman Singh".

   (iii) Change the damage amount.

   (iv) Remove car details of a particular license.

   (v) Add a new accident record for the Toyota belonging to "Manoj-Tiwari".

   (c) What is DML ? Explain the utilities of groupby, having and orderby clauses with suitable example.

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X–3566

Diploma in Computer Application

(Second Semester) EXAMINATION, June, 2014

HTML AND INTERNET APPLICATIONS

(DCA—107)

Time : Three Hours]　　　　　[*Maximum Marks : 100*

[*Minimum Pass Marks : 33*

Note : Attempt any *two* parts from each question. All questions carry equal marks.

Unit—I

1. (a) Explain naming scheme for HTML documents.

   (b) Discuss HTML document structure with illustration.

   (c) What is extensible style sheet language and XML ? Explain.

Unit—II

2. (a) What is Link ? Explain ALINK and VLINK.

   (b) Write short notes on the following :

   (i) Heading (Hn)

   (ii) Text emphasis elements

   (c) Explain logical and physical style in HTML.

Unit—III

3. (a) Discuss internal and external linking of web pages.

   (b) How can we design frames in HTML ? Explain.

   (c) Explain insertion of images using the element IMG.

Unit—IV

4. (a) What are static web pages and dynamic web pages ? Explain.

   (b) Write practical example and client side scripting.

   (c) Explain hosting and promotion of website.

Unit—V

5. (a) Write short notes on any *two* of the following :

   (i) ISP

   (ii) ARPANET

   (iii) WWW

   (b) Write short notes on any *two* of the following :

   (i) DNS

   (ii) Internet security

   (iii) Distributed computing

   (c) What is Internet ? Discuss internet applications.