| MCS-014 |

MCA (Revised)

Term-End Examination

June, 2011

MCS-014 : SYSTEM ANALYSIS AND DESIGN

Time : 3 hours   *Maximum Marks : 100*
                                   (Weightage: 75%)

Note :   *Question No.1 is* **compulsory.** *Attempt* **any three** *questions from the rest.*

1. (a) Construct a data flow diagram **10** (level 0 and 1) for a library management system. Also draw the respective ERDs for it.

    (b) Explain the steps and activities in the design **10** phase, of SDLC.

    (c) Explain the key features of the followings : **10**

        (i)   Prototyping Model

        (ii) Spiral Model

        Give a brief note on system maintenance and explain any 1 model of system maintenance (with a diagram).

(d) What is the importance of security and **10**
protection of databases for any organisation ?
What are the various policies and methods
to ensure security of databases ?

2. (a) Explain the key players and their roles and **10**
responsibilities at various levels of a MIS.
Explain the tasks performed at DSS in
detail.

(b) Differentiate between a decision table and **8**
a decision tree. Prepare a sample data
dictionary for an employee management
system.

(c) Prepare a brief note on user documentation, **2**
as well as utility.

3. (a) What is cost estimation ? Give one model **7**
used by an organisation for cost benefit
analysis.

(b) Explain the essential features of a SRS and **7**
prepare it for a project on 'Student
Enrollment System'.

(c) Write a brief note on an 'expert system and **6**
its key characteristics'.

4. (a) Give differences between internal 8
         information and turnaround information.
         Also describe the process of designing a
         form.

    (b) What is denormalization ? Give a suitable 6
         example to explain it. Also explain the
         process of denormalization of tables.

    (c) Differentiate between various types of 6
         databases and differentiate between a
         DBMS and a file–system.

5. Write short notes on the following with example
    of each :   5x4=20

    (a) Information System Design

    (b) Modularity

    (c) System testing

    (d) CASE tools

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