| MCS-014 |

MCA (Revised)

Term-End Examination

June, 2013

06449

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) Draw a Data Flow Diagram (DFD) till   **10**
         second level depicting various processes,
         data flow and data repositories for a
         "Library Management System". Follow the
         conventions.

    (b) Define a Structure Chart. Draw a Structure   **10**
         Chart for a Payroll Processing System. Also,
         explain the symbols used in the chart.

    (c) Define modularity. Describe the ways and   **10**
         means to achieve modularity. Explain with
         the help of an example.

    (d) Write the importance of quality in software   **10**
         development. List specifications of various
         quality factors.

2. (a) Explain Real Time Systems and Distributed Systems. **10**

   (b) Explain Structured Analysis and Structured Design. What are its goals ? **10**

3. (a) What are the various activities involved in the feasibility study ? Discuss *any three* feasibilities need to be studied during feasibility analysis. **10**

   (b) What are top-down design and bottom-up approaches ? Design top-down approach for any system of your choice. **10**

4. (a) Describe all the steps involved in database design for the system discussed in 1 (a) question. **10**

   (b) Define CASE tools. Explain their role. **5**

   (c) With the help of an example, explain a sequence diagram. **5**

5. Write short notes on the following : **4x5=20**
   (a) Participatory Design
   (b) Test Design Document
   (c) Coupling
   (d) Decision Tables