MCA (Revised)

Term-End Examination

June, 2007

MCS-014 Ⓢ : SYSTEMS ANALYSIS AND DESIGN

Time : 3 hours   Maximum Marks : 100

(Weightage 75%)

Note :   Question number 1 is **compulsory**. Answer any **three** questions from the rest.

1. (a)   Prepare a SRS for an "Event Management System". Design the DFD for the context level, first level and second level for the system. Follow the rules/conventions given in your study material to draw the DFDs.   10

    (b)   How is concurrent auditing technique different from the conventional systems auditing ? What is its need ? Explain the overall process involved in the concurrent auditing.   10

(c) Distinguish between prototyping and joint application development approaches. Mention any two applications for each, which can be developed using these approaches.   *5*

(d) List all the fact finding techniques and explain in detail any two of them, listing their merits and demerits.   *10*

(e) What is meant by functional decomposition of a management system ? Take suitable example yourself.   *5*

2. (a) "Modules should be highly cohesive in nature." Comment on this statement. What is cohesion ? Discuss with the help of relevant diagrams.   *10*

(b) Draw an ER diagram for an "Inventory Management System" for any retail medical store. Assumptions can be made wherever necessary and list them.   *10*

3. (a) With the help of a suitable example, explain the steps involved in the logical design of the databases.   *10*

(b) Define a data dictionary. Mention various uses of the data dictionaries by the Systems Analyst. With the help of an example, explain the contents of the data dictionaries.   *10*

4. (a) Explain various criteria to be considered while designing the Reports.   *10*

(b) List and explain the four key stages of the systems maintenance activity. *5*

(c) Describe the objectives of the following Audit packages : *5*

   (i) Visual Audit Pro

   (ii) IDEA

5. Explain the following : *4×5=20*

   (i) Bottom-up design approach

   (ii) Decision trees

   (iii) OO-case tools

   (iv) Risk assessment and management