MCA (Revised)

Term-End Examination

December, 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) Define SRS. What are basic issues that the SRS writer should address ?　　8

   (b) Write the importance of feasibility study. Describe different type of feasibility reports.　　8

   (c) List principles of system design. Also, differentiate between Top-Down and Bottom-Up design with the help of a suitable example.　　8

   (d) Why is Joint Application Development (JAD) used ? Explain the different participants in JAD. Also, write the various benefits of JAD.　　8

   (e) Differentiate between Decision Support System (DSS) and Expert System. Also, write the main characteristics of both.　　8

2. (a) What are the important disadvantages of CASE tools ? Explain, how CASE tools are used in reverse and forward engineering. *10*

(b) Explain required steps taken by software development team at the time of delivery of software. *10*

3. (a) Design the detailed process modelling and data modelling diagrams for employee information system. Make necessary assumptions. *10*

(b) "Inaccurate, incomplete, out of date, or missing documentation is a major contributor to poor software quality." Justify the statement. Also, explain, how software maturity model (CMM) contributes in the quality of a software. *10*

4. (a) Define process, procedure and process specification tools. Make the decision table equivalent to the following structured English notation : *15*

If balance ≤ 0

then {issue exception note}

else if balance in account < minimum balance

then {issue warning to department}

else {issue items to department}

endif

endif

(b) Draw E – R diagram for statement written below :   5

"The LG company is organized into departments. Each department has a particular employee who manages the department. A department may have several locations. A department controls a number of projects. Each project has a single location. An employee is assigned to one department but may work on several projects. Every employee has a direct supervisor.

5. (a) Explain the important tasks performed by a Systems Analyst.   10

(b) Write the importance of testing in software development. Explain the important contents of Test Design Document.   10