

MCA (Revised) / BCA (Revised)

Term-End Examination

07275

December, 2016

MCS-014 : SYSTEMS ANALYSIS AND DESIGN

Time : 3 hours

Maximum Marks : 100

(Weightage : 75%)

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

1. (a) Draw a Data Flow Diagram (DFD) from context level till second level clearly showing various processes, data flow and data repositories for a "Library Management System". 10
- (b) Define 'Modularity'. Write any two goals of a good design. Also write at least four guidelines for achieving the goals mentioned. 10
- (c) Explain how both waterfall model and prototyping model can be accommodated in the spiral model. 10
- (d) Explain relational, hierarchical and network models of database design, with examples. 10

2. (a) Describe the characteristics of a good interface. List some guidelines to design output screens, icons and graphics. 10
- (b) What is an E-R diagram ? Construct an E-R diagram for a "Railway Reservation System". Make necessary assumptions. 10
3. (a) Prepare an outline of SRS for a "Railway Reservation System". Make suitable assumptions wherever necessary. 10
- (b) Define the term 'Cohesion'. Explain any two types of cohesion. 10
4. (a) Explain any two ways of Requirements Gatherings. What are their shortcomings ? Use examples to explain. 10
- (b) Define the term "Decision Support System". Explain its various components. 10
5. (a) What is a Form ? What are the advantages of having forms as part of user interface ? What are the criteria used for Form Design ? 10
- (b) How does Reverse Engineering differ from Forward Engineering ? Explain with example. 10