

09047

MCA (Revised)
Term-End Examination
June, 2012

**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) What are different phases in SDLC ? What is need of System Analysis ? Explain the role of System Analyst. 10
- (b) Draw a Data Flow Diagram (DFD) till second level Depicting the various processes, data flow and data repositories for a "Petrol - Pump retail outlet". 10
- (c) What is meant by "System Design Specification" ? Explain the purpose of the following system design tools : 9
 - (i) Object Interaction Diagram
 - (ii) Inheritance Diagram
 - (iii) Aggregation Diagram
- (d) What is DSS ? Explain various components briefly with the help of a suitable diagram. 6

- (e) What is reverse engineering ? Explain the need of reverse engineering with an example. 5
2. (a) What are object oriented Case Tools ? List basic features of OO Case Tools. Also write differences between various types of OO Case Tools. 10
- (b) What is on - line transaction processing ? Give an example of on - line transaction processing. Also differentiate between on - line transaction, processing and batch processing. 10
3. (a) What is transaction audit ? Explain four advantages of transaction audit. 10
- (b) What is Joint Application Development (JAD) ? Explain six typical participants in a JAD. 10
4. (a) What is need of software testing ? Describe the objectives of the following testing techniques : 10
- (i) Stress Testing
 - (ii) Performance Testing
 - (iii) Recovery Testing
 - (iv) Security Testing

- (b) What is need of standard software documentation ? Explain any three documentation standards briefly. 10
5. (a) Briefly, discuss various criteria for Form and Report design, using an example. 10
- (b) Write a short note on following : 5x2=10
- (i) Coupling and cohesion
 - (ii) Distributed system
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