COMP 4 – 5 (RC)

S.E. (Comp.) (Semester – IV) Examination, November 2010
SYSTEM ANALYSIS AND DESIGN
(Revised 2007-08)

Duration : 3 Hours | Total Marks : 100

***Instruction** : Attempt **any five** questions with **at least one** from **each** Module.*

MODULE – 1

1. a) What are the elements of a system ? Can you have a viable system without feedback ? Explain. **6**

   b) You have heard people discuss systems. What is a system ? What is systems analysis ? **4**

   c) How would an analysis determine the user's needs for a system ? Explain. **5**

   d) Distinguish between initial investigation and feasibility study. In what way are they related ? **5**

2. a) Elaborate on the technical and interpersonal skills required of systems analysts. When is one skill favoured over the other ? Why ? **10**

   b) What academic qualifications are important for systems work ? What about the personal attributes ? Explain. **4**

   c) Distinguish between the following :

      i) Project-oriented and pool-oriented arrangements.

      ii) Pool approach and team approach in programming.

      iii) Jobs of manager and systems analyst. **6**

MODULE – 2

3. a) Why is it so critical to manage system development ? Explain. **4**

   b) Describe the data analysis method. How does it differ from the decision analysis method ? Elaborate on the pros and cons of each method. **6**

   c) What is the difference between managerial and operational MIS planning ? Discuss. **6**

   d) Why is it important that the analyst learns about an organization's policies and objectives ? **4**

P.T.O.

4. a) Explain and give an example of each variety of closed questions :
   i) Fill-in-the-blanks questions
   ii) Dichotomous questions
   iii) Ranking scales questions
   iv) Multiple choice questions
   v) Rating scales questions. **5**

b) Discuss the pros and cons of the traditional approach to systems analysis. **5**

c) List and illustrate the primary uses and elements of a decision table. **6**

d) Distinguish between the following :
   i) Opportunity and sunk costs
   ii) Direct and indirect costs. **4**

MODULE – 3

5. a) Distinguish between the following :
   i) Logical and physical design
   ii) HIPO and IPO
   iii) Coupling and cohesion. **6**

b) What are some of the advantages of top-down design ? Elaborate. **4**

c) What is the goal of input design ? Output design ? **4**

d) What are the abbreviations of the following captions :
   i) Accumulate
   ii) Insurance
   iii) Manufacturing
   iv) Purchase order
   v) Reference
   vi) Weight. **6**

6. a) Explain briefly three approaches for data entry. **6**

b) What is a form ? Summarise the characteristics of different categories of form. **6**

c) What is chaining ? How does it relate to indexed-sequential file organization ? Illustrate. **4**

d) How does hierarchical structuring differ from network structuring ? **2**

e) What features does a relational DBMS offer ? **2**

MODULE – 4

7. a) What design specifications are considered in preparing a test plan ? Explain. **6**

b) List and briefly describe the factors that affect the quality of a system. **6**

c) Explain the major activities in conversion. Which activity is the most important ? Why ? **4**

d) Review the primary activities of a maintenance procedure. **4**

8. a) Distinguish between the following :

i) Hardware and service suppliers

ii) Concurrence of operation and multiplexed operation

iii) RFP and vendor proposal

iv) Portability and understandability. **8**

b) There are three methods of acquisition. What are they ? Elaborate on the pros and cons of each method. **6**

c) What is a Gantt chart ? How would you develop one ? How does it differ from a PERT chart ? Explain. **6**