S.E. (Comp.) (Semester - IV) (RC) Examination, Nov. - 2011

SYSTEM ANALYSIS & DESIGN

Duration : 3 Hours

Total Marks : 100

Instructions : 1) Answer any five questions, by selecting at least 1 full question from each module.

2) **Assume necessary details, if any.**

MODULE - I

Q1) a) Explain prototyping with a neat diagram. [3]

b) Explain the various stages in SDLC. Support your answer with neat diagram. [8]

c) Explain the various steps in system design with a neat diagram. [5]

d) Why is database important in MIS? [4]

Q2) a) What are the interpersonal and technical skills required by a system analyst? [8]

b) Explain 5 important characteristics of open system. [5]

c) Write short notes on: [4]

i) User motivation.

ii) Analyst / User differences.

d) What is system? List different types of system. [3]

MODULE - II

Q3) a) Discuss the various types of costs and benefits with suitable example. [6]

b) List and explain primary steps in interviewing. [6]

c) Explain and give example of each:- [8]

i) Fill - in - the - blanks questions.

ii) Dictotomous questions.

iii) Ranking scales questions.

iv) Multiple choice questions.

Q4) a) What is DFD? What are the symbols and rules in DFD construction? [6]

b) List and explain in detail, tools of structured analysis. [8]

c) Explain break-even analysis. [6]

MODULE - III

Q5) a) Distinguish between the following: [4]

     i)   Logical and physical design.

     ii)   Coupling and cohesion.

   b) Explain briefly 3 approaches for data entry. [6]

   c) What factors determine paper selection? Explain. [6]

   d) What is a data structure? Explain any 1 datastructures with diagram. [4]

Q6) a) What is the purpose behind normalization? How does one normalize a file? Explain with an example. [8]

   b) What is a form? Summarize the characteristics of action, memory and report form. [6]

   c) What design methodologies are used in system design? Briefly describe. [6]

MODULE - IV

Q7) a) What is quality assurance? List and briefly describe the factors that affect the quality of a system. [8]

   b) Distinguish between the following: [6]

     i)   Hardware and service supplies.

     ii)   RFP and vendor proposal.

     iii)   Portability and understandability.

   c) What is syntax error? How does it differ from a logic error? Give example. [4]

   d) Define system testing and stress testing. [2]

Q8) a) With the help of diagram explain encryption/ decryption technique used for system security. [6]

   b) What are the methods of data acquisition? Elaborate on pros and cons of each method. [6]

   c) What is a GANTT chart? How does it differ from PERT chart? Explain. [6]

   d) Define alpha and beta testing. [2]