19-6-15 (M)

S.E. (Computer) (Semester – IV) (RC) Examination, May/June 2015
SYSTEM ANALYSIS AND DESIGN

Duration : 3 Hours   Total Marks : 100

Instructions: 1) Answer **any five** questions, at least **one** from **each** Module.
2) Make suitable assumptions, **if necessary.**

MODULE – 1

1. a) In what respect should the analyst be a politician ? What would be an example where political considerations are used in systems work ?   **3**

   b) Explain the stages of SDLC with respect to a Hospital Management System.   **8**

   c) Differentiate between DPS, MIS and DSS.   **4**

   d) Explain the importance of para professionals in system development.   **5**

2. a) Explain Simon's decision making process.   **4**

   b) Differentiate between project termination and system failure. State and explain the reasons for each.   **8**

   c) State and elaborate on different information levels and managerial positions present in an organization.   **5**

   d) Explain the pool oriented structure of system analysis with the help of a diagram.   **3**

MODULE – II

3. a) Draw a DFD for the following scenario :   **6**

   A magazine is published monthly and is sent to its subscribers. Two months before the expiry of subscriptions, a remainder is sent to its subscribers. If subscription is not received within a month, another remainder is sent. If renewal of the subscription is not received up to two weeks before the expiry of subscription, the subscriber's name is removed from the mailing list and the subscriber is informed.

P.T.O.

b) Explain the different steps in feasibility analysis.   **8**

c) In what respect interviewing is an art ? Explain.   **6**

4. a) Differentiate between :   **6**

    i) Tangible and intangible costs/benefits

    ii) Direct and indirect costs/benefits

    iii) Fixed and variable costs/benefits.

b) List and explain in detail the tools of structured analysis.   **6**

c) It is difficult to determine user requirements. Illustrate.   **4**

d) Explain the different on-site observation methods used for information
gathering.   **4**

MODULE – III

5. a) Explain the use of carbon paper as a form copier.   **5**

b) Design a structure chart using the following information :   **4**

Calling module · 'calculate gross pay'

Called modules – 'get payscale information', 'sum hours worked', 'compute
and record gross pay'. Assume input and output couples required.

c) What is the goal of functional decomposition approach to structured design ? **6**

d) What is chaining ? How does it relate to indexed-sequential file organization ?
Illustrate.   **5**

6. a) Explain the difference between :   **6**

    i) Logical and physical design

    ii) Sequential and indexed sequential

    iii) HIPO and IPO.

b) What is a form ? Explain the characteristics of the different types of forms.   **4**

c) What are the different input media and devices used in inputting the source
data ?   **6**

d) Give the importance of user involvement in system design.   **4**

MODULE – IV

7. a) Differentiate between : **4**

   i) Hardware and service suppliers

   ii) RPF and vendor proposal.

   b) Explain the strategies and tactics in negotiating contracts. If you were representing a client or acquiring a small computer. how would you go about it ? **4**

   c) Which are the two planning tools used in project planning ? **8**

   d) Write a short notes on disaster recovery/planning. **4**

8. a) What is PERT diagram used for ? Explain the steps to create a PERT diagram. How does it differ from a GANTT chart ? **8**

   b) What is quality assurance ? Discuss the various levels of quality assurance. **4**

   c) Define the following terms : **3**

   i) data security

   ii) data integrity

   iii) confidentiality.

   d) State the advantages and disadvantages of the lease option. **5**