1. (a) List the underlying principles for a prototype design. Under which conditions, this design will be useful? With the help of an example system, explain its approach.

(b) Draw a data flow diagram (DFD) till second level, depicting various processes, data flow and data repositories for a “Study centre Management System”. Follow appropriate conventions/symbols as were given in your study material.

(c) Explain what kind of fact finding techniques would you use for deciding on the design of a new application/system for some “Assignments Management System” at a study centre.
(d) Explain briefly the criteria for the following:
   (i) Form Design
   (ii) Report Design

2. (a) Define a Decision Support System (DSS). What are its characteristics? Also list and explain various components of DSS.
   (b) Explain Reverse and Forward Engineering with the help of an example for each.

3. (a) Define Internal Information. Where is it useful? Also discuss various sub classes of internal information with the help of an example for each.
   (b) What is Cohesion? Explain any four types of Cohesion.

4. (a) List and explain the Goals of a Good Design. Also discuss as set of guidelines to be followed basing upon the good design.
   (b) Explain various steps involved in the process of documentation.

5. Write short notes on the following: 4x5=20
   (a) Data Dictionary
   (b) Joint Application Development
   (c) Cost Benefit Analysis
   (d) Any two types of system testing.

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