1. (a) Draw a Data Flow Diagram (DFD) till second level depicting various processes, data flow and data repositories for a "Library Management System". Follow the conventions.

(b) Define a Structure Chart. Draw a Structure Chart for a Payroll Processing System. Also, explain the symbols used in the chart.

(c) Define modularity. Describe the ways and means to achieve modularity. Explain with the help of an example.

(d) Write the importance of quality in software development. List specifications of various quality factors.
2. (a) Explain Real Time Systems and Distributed Systems.  
(b) Explain Structured Analysis and Structured Design. What are its goals?

3. (a) What are the various activities involved in the feasibility study? Discuss any three feasibilities need to be studied during feasibility analysis.  
(b) What are top-down design and bottom-up approaches? Design top-down approach for any system of your choice.

4. (a) Describe all the steps involved in database design for the system discussed in 1 (a) question.  
(b) Define CASE tools. Explain their role.  
(c) With the help of an example, explain a sequence diagram.

5. Write short notes on the following:
   (a) Participatory Design  
   (b) Test Design Document  
   (c) Coupling  
   (d) Decision Tables

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