Q.P. Code: 24565

(3 HOURS) **[Total Marks: 80]**

N.B.: (1) Question no. 1 is compulsory.
(2) Attempt any three questions from remaining.
(3) Assume suitable data wherever necessary.

Q1. (a) What is system? Which are the different types of system? What is role of system analyst in analyzing, designing and implementation of system? (**10**)
(b) Explain development of SRS document with suitable example. (**10**)

Q2. (a) What are the steps to draw DFD? Draw DFD (upto two levels) for withdrawing money from bank. (**10**)
(b) What is UML? Draw class diagram for library management system showing different relationships between classes. (**10**)

Q3. (a) Explain cohesion and coupling in the context of software design. Why and how these concepts are important for good software design? (**10**)
(b) What is feasibility analysis? Explain payback analysis with example. (**10**)

Q4. (a) How to identify use case and actors for use case diagram? Identify use cases & actors and draw use case diagram for car rental system. (**10**)
(b) Explain requirement gathering techniques used in system analysis. (**10**)

Q5. (a) Explain different elements of activity diagram with suitable example. (**10**)
(b)What is the purpose of sequence diagram? Draw sequence diagrams for approval/rejection of admission forms for eligible/non-eligible candidates. (**10**)
(**10**)

Q6. Write short notes (any two) (**20**)
a) User Interface Design
b) Modeling Application Architecture
c) Business Process Re-engineering (BPR)
d) System security and integrity measures