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Time: 3 Hours

Max. Marks: 70

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*Answer any FIVE Questions*  
*All Questions carry equal marks*

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1. Explain about principles of modeling in detail.

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2. (a) Explain about the steps for modeling the distribution and responsibilities with example.  
(b) Explain about the steps for modeling the non-software things.

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3. Explain about the different ways of using a class diagram when modeling the static design view of a system.

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4. Explain about the following,
  - (a) Messages
  - (b) Links
  - (c) Sequencing.

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5. (a) What is a use case? How it differs from the flow of events?  
(b) What are the various flows of events in UML?  
(c) Enumerate the steps to model the behaviour of an element with an example.

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6. Write a short note on the following,
  - (a) History states
  - (b) Substates
  - (c) Sequential substates
  - (d) Concurrent substates.

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7. (a) Enumerate the steps to forward engineer and to reverse engineer a deployment diagram.  
(b) What are the characteristics of a well-structured deployment diagram?  
(c) What are the common uses of deployment diagram?

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8. (a) Draw and explain sequence diagram for the search facility of the objects, so that “wild card” characters can be used when searching for titles, authors or borrowers.  
(b) Explain the searching for a book operation using a java program and give its equivalent class diagram.