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Register Number  
Name of the Candidate:

**M.Sc. DEGREE EXAMINATION, May 2015**

**(INFORMATION TECHNOLOGY)**

**(FOURTH SEMESTER)**

**421: UNIFIED MODELING LANGUAGE**

Time: Three hours

Maximum: 100 marks

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**SECTION-A**

**(8×5=40)**

**Answer any EIGHT questions**

1. Explain software development life cycle.
2. With a neat diagram, explain modeling vocabulary of a system.
3. What do you mean by modeling the seam in a system? Explain.
4. What is an instance? Describe modeling concrete instances.
5. Explain how will you apply use cases to model the behaviour of an element.
6. Write the steps needed to model an operation.
7. What is a signal? Explain how to model a family of signals.
8. How to model the distribution of objects? Explain.
9. Write the steps to model the following:
  - i) Processors and devices
  - ii) Distribution of components
10. Write the activities that apply to a system and to its subsystems in modelling the architecture of a system.

**SECTION-B**

**(3×20=60)**

**Answer any THREE questions**

11. Discuss the concept of key abstractions.
12. a) Explain the various classifiers provided by UML to help you model. (10)  
b) Explain the steps to model a group of elements (10)
13. Explain the following:
  - a) To model a flow control by time ordering. (10)
  - b) To model a flow control by organization. (10)
14. a) Describe how to model a reactive object. (10)  
b) Describe the state chart diagram for parsing a simple context free language. (10)
15. What are the three ways of using deployment diagrams, when you model the static deployment view of a system? Discuss.

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