

Level: Bachelor	Semester: Fall	Year : 2017
Programme: BE		Full Marks: 100
Course: Object Oriented Design and Modeling through UML		Pass Marks: 45
		Time : 3hrs.

The figures in the margin indicate full marks.

Attempt all the questions.

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| 1. | a) | Explain the difference between Object Oriented Analysis and Object Oriented Design with an example? | 7 |
| | b) | Explain the role of UML model in software design? Explain types of use cases with examples. | 8 |
| 2. | a) | Explain difference between incremental and iterative software development model. | 7 |
| | b) | Explain system event and system response? Explain the purpose of SSD with an example. | 8 |
| 3. | a) | Explain the guidelines for preparing a contract with its purpose. | 7 |
| | b) | What is Global visibility how it is different from parameter visibility, explain with example. | 8 |
| 4. | a) | Define conceptual class. Explain the role of domain modeling with an example. | 8 |
| | b) | Explain the use of state chart diagram? Show mutual exclusive condition in Collaboration diagram with example. | 7 |
| 5. | a) | How DCD is different from Domain models? Explain method name issues in DCD. | 7 |
| | b) | Define GRASP. Explain the purpose of Controller pattern with an example? | 8 |
| 6. | | CASE STUDY: Draw equivalent use case, sequence diagram and class diagram for the given scenario below. | 15 |

A customer wants to draw money from his bank account. He enters his card into an ATM (automated teller machine). The ATM machine prompts “Enter PIN”. The customer enters his PIN. The ATM (internally) retrieves the bank account number from the card. The ATM encrypts the PIN and

the account number and sends it over to the bank. The bank verifies the encrypted Account and PIN number. If the PIN number is correct, the ATM displays “Enter amount”, draws money from the bank account and pays out the amount.

7. Write short notes on: (**Any two**)
- a) Object diagram
 - b) Creator pattern
 - c) UML multiple perspectives

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