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P.E.S. College of Engineering, Mandya - 571 401

(An Autonomous Institution affiliated to VTU, Belgaum)

Fourth Semester - Master of Computer Applications (MCA)

Semester End Examination; June - 2016

Object Oriented Modeling and Design Pattern

Time: 3 hrs

Max. Marks: 100

Note: Answer FIVE full questions, selecting ONE full question from each unit.

UNIT - I

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| 1 a. | What is a model? What are the purposes served by model? | 5 |
| | b. Differentiate between links and Association. | 5 |
| | c. Explain advanced class concept with an example. | 10 |
| 2 a. | Explain object oriented themes. | 5 |
| | b. Write a note on qualified Association. | 5 |
| | c. Differentiate between Association, Aggregation and Composition. | 10 |

UNIT - II

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| 3 a. | Explain state diagram behavior in detail. | 10 |
| | b. Explain types of concurrency along with appropriate example. | 10 |
| 4 a. | What is an event? Discuss types of events. | 8 |
| | b. How do you overcome problem with Flat state diagram? Explain each with an example. | 12 |

UNIT - III

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| 5 a. | Explain different use case relationships along with an example. | 10 |
| | b. How do you eliminate unnecessary classes? Discuss taking ATM example. | 10 |
| 6 a. | Discuss the question to be asked while preparing a problem statement. | 10 |
| | b. How constructing application state model is different from domain state model? Discuss the steps in constructing application state model. | 10 |

UNIT - IV

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| 7 a. | What are the things which can be reused while making a reuse plan in system design? Explain. | 10 |
| | b. Explain the steps in designing algorithm. | 10 |
| 8 a. | What are the different architectural styles? Discuss any two in detail. | 10 |
| | b. Explain the steps in organizing the classes. | 10 |

UNIT - V

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| 9 a. | What is a pattern? Explain model views controller (MVC) along with a neat diagram. | 10 |
| | b. Explain the structure and variants of Master Slave Pattern. | 10 |
| 10 a. | Explain properties of pattern. | 10 |
| | b. Explain structure and dynamics of forwarder- receiver pattern. | 10 |