

FACULTY OF INFORMATICE
B.E. 3/4 (IT) II – Semester (Main) Examination, June 2014

Subject: Object Oriented System Developmente

Time: 3 Hours

Max.Marks: 75

Note: Answer all questions from Part A. Answer any five questions from Part B.

PART – A (25 Marks)

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| 1 | Write any two principles of modeling. | 2 |
| 2 | Write any three applications of UML. | 3 |
| 3 | Define interface, package and node with notations. | 3 |
| 4 | Define component and active class with notations. | 2 |
| 5 | Write three differences between sequences and collaboration diagram. | 3 |
| 6 | Define processes and threads in a state chart diagram | 2 |
| 7 | Define following testing. | |
| | a) White Box b) Black Box | 2 |
| 8 | Define the following Relationships in UML. | |
| | i) Dependency ii) Realization iii) Aggregation | 3 |
| 9 | Define the following Rules in the UML. | |
| | a) Visibility b) Integrity | 2 |
| 10 | Write the differences between action states and activity states in activity diagram. | 3 |

PART – B (50 Marks)

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|----|---------------------------------------------------------------------------------------------|----|
| 11 | a) Explain different diagrams that are present in the UML. | 6 |
| | b) Explain common mechanisms in the UML. | 4 |
| 12 | Explain about the 4P's in software development process with a neat diagram. | 10 |
| 13 | a) What are the different phases in software development life cycles? | 5 |
| | b) Explain briefly about Usecase Driven Process. | 5 |
| 14 | a) Explain following common mechanisms of the class diagram with examples. | 6 |
| | i) Note ii) Stereotypes iii) Tagged values | |
| | b) Draw and explain class diagram for library management system. | 4 |
| 15 | a) Define object. Draw the object diagram for student information system. | 6 |
| | b) Explain different stereotypes related to objects that apply to messages and transitions. | 4 |
| 16 | Explain the following components that are present in the activity diagram with an example. | 10 |
| | a) Transitions b) Branching c) Forking d) Joining e) Swimlanes | |
| 17 | a) Explain the following events with an example. | 6 |
| | i) Signal and call events ii) Time and charge events | |
| | iii) Sending and receiving events | |
| | b) Explain the following states that are present in the state machine with an example. | 4 |
| | i) History states ii) Concurrent substates | |