

IV B.Tech I Semester Supplementary Examinations, March - 2017
UML & DESIGN PATTERNS
 (Common to Computer Science & Engineering and Information Technology)

Time: 3 hours**Max. Marks: 70***Question paper consists of Part-A and Part-B**Answer ALL sub questions from Part-A**Answer any THREE questions from Part-B*

PART-A (22 Marks)

1. a) What are the various relationships used in UML? [4]
- b) What are three common use case formats? [3]
- c) “Is GRASP a set of patterns or principles “. Justify the statement? [3]
- d) Write down principle involved in design pattern fabrication [4]
- e) How to apply activity diagrams in UML. [4]
- f) What is the relationship between aggregation and composition? [4]

PART-B (3x16 = 48 Marks)

2. a) What are your comments on “UML as programming language “? Explain. [8]
- b) What are the unified processes (UP) phases? Explain with the help of diagram. [8]
3. a) How to write use cases in Inception, elaboration with examples. [8]
- b) What are the elements of supplementary specification? [8]
4. a) What are the basic concepts of a sequence diagram? Explain with an example? [8]
- b) What are use case realizations? Explain with use case realizations patterns? [8]
5. a) What are creational patterns? Explain any one creational pattern with example. [8]
- b) Compare and contrast the structural and behavioral patterns. [8]
6. a) How to apply state chart diagrams? Explain with examples. [8]
- b) What are the differences between component and deployment diagrams? What are the types of components in UML? [8]
7. a) Explain about conceptual subclasses, conceptual super classes and abstract conceptual classes in UML. [8]
- b) Write a use case diagram for online railway reservation system. [8]