

- 1.a) Discuss various phases in a unified process. (7M)
- 1.b) Elaborate MVC architecture with an Example. (7M)
- (OR)
- 1.c) Discuss in detail about how design patterns solve design problems. (7M)
- 1.d) What are the unified processes (UP) disciplines? Explain with diagrams. (7M)
- 2.a) Write the significance of FRUPS model. (7M)
- 2.b) Explain use case types and formats with examples. (7M)
- (OR)
- 2.c) Explain and write the requirements for the case study 'monopoly game' in the Use case model. (7M)
- 2.d) Write about the elements of supplementary specification. (7M)
- 3.a) Explain in detail about Singleton design pattern. (7M)
- 3.b) Discuss the Use case realizations with GRASP patterns. (7M)
- (OR)
- 3.c) Explain how singleton helps in communication. (7M)
- 3.d) Explain how to create a domain model with an example. (7M)
- 4.a) Write about principles, control indication and relative pattern of fabrication in detail. (7M)
- 4.b) Explain about structure, implementation and design issues of facade design pattern. (7M)
- (OR)
- 4.c) Explain the need of Publish-Subscribe design pattern. (7M)
- 4.d) Discuss the motivation and applicability of factory design pattern with an example. (7M)
- 5.a) Elaborate the need of fork and join in an activity diagram with example. (7M)
- 5.b) Draw and explain the sequence diagram for banking management system. (7M)
- (OR)
- 5.c) What are the uses of deployment diagram? Explain the basic elements of a deployment diagram with neat diagram? (7M)
- 5.d) What are activity diagrams? Explain the symbols used in activity diagram with examples. (7M)

 Question Paper consists of FIVE units, each carrying 14 marks
 Each unit has TWO questions; either of them should be answered
 All parts of a question must be answered at one place
