

FACULTY OF INFORMATICS

B. E. 4/4 (IT) I Semester (Suppl.) Examination, July 2012

Subject: **Software Reuse Techniques (Elective – III)**

Time: 3 Hours

Max. Marks: 75

Note: Answer all questions from Part-A. Answer any *Five* questions from Part-B.**PART – A (25 Marks)**

1. Define object oriented software engineering? 2
2. What is software re-use? Mention the advantages of software re-use. 3
3. What are the basic principles of software re-use? 3
4. What is a design pattern? Give examples. 2
5. What is a creational pattern? What is the intent of factory pattern? 3
6. What is the intent of adapter and bridge pattern? 3
7. What are the advantages of chain of responsibility pattern? 2
8. Draw the structure of observer pattern. Mention the participants in observer pattern. 3
9. What is the intent of pipes and filters architectural pattern? 2
10. What are the common uses of model-view-controller architectural pattern? 2

PART – B (50 Marks)

- 11.(a) What is re-use driven software engineering. Explain its advantages. 5
(b) Explain about applications and components subsystems? 5
- 12.(a) Explain the intent, structure, motivation and applicability issues of builder pattern. 5
(b) Explain the intent, structure, participants, motivation and consequences of singleton pattern. 5
13. Explain the intent, structure, motivation, participants, applicability, implementation issues, consequences, known uses of flyweight pattern? 10
- 14.(a) Explain the intent, motivation, applicability, collaborations and consequences of interpreter pattern? 5
(b) Explain about the applicability, consequences and collaborations of strategy pattern with reference to the structure of the pattern? 5
15. Explain in detail about the blackboard architecture for repository systems. 10
- 16.(a) Explain briefly about broker architecture. 5
(b) Explain the publisher-subscriber design pattern. 5
17. Write short notes on:
(a) Use case components
(b) Micro Kernel architecture.
