

FACULTY OF INFORMATICS

B.E. 4/4 (IT) I – Semester (Main) Examination, December 2010

Subject : Software Reuse Techniques (Elective – III)

Time : 3 Hours

Max.Marks: 75

Note: Answer all questions. All questions carry equal mark**PART – A (25 Marks)**

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| 1. List the advantages of software re-use? | 2 |
| 2. Define a design pattern? What is its necessity in software design? | 3 |
| 3. What are the basic principles of software re-use? | 2 |
| 4. What is the intent of abstract factory and builder pattern? | 3 |
| 5. List the common causes for redesigning a system? | 2 |
| 6. Mention the classification of design patterns? | 2 |
| 7. What are the known uses of singleton pattern? | 3 |
| 8. What is the difference between structural, behavioural and creational patterns? | 3 |
| 9. What are the consequences of applying mediator pattern? | 3 |
| 10. What are the primary activities in a single software development life cycle. | 2 |

PART – B (50 Marks)

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| 11.(a) How can the software re-use be adopted systematically and incrementally? Explain. | 5 |
| (b) How do the objects unify the modeling process? Explain. | 5 |
| 12.(a) Explain step-by-step approach for applying a design pattern effectively? | 5 |
| (b) Explain the procedure for selecting a particular design pattern for solving a design problem. | 5 |
| 13.(a) Explain the intent, structure, participants of factory method? | 5 |
| (b) Explain the intent, motivation, applicability of adapter pattern? | 5 |
| 14. Explain in detail about chain-of-responsibility pattern? | 10 |
| 15.(a) What are the different types of proxies? Explain. | 6 |
| (b) Explain the intent, structure of whole-part design pattern? | 4 |
| 16.(a) Explain the intent, structure of layered architecture? | 5 |
| (b) Explain the intent, consequences of applying pipe and filter architecture. | 5 |
| 17. Write short notes on: | 10 |
| a) Re-use driven software engineering. | |
| b) View-handler. | |