

FACULTY OF INFORMATICS**B.E. 4/4 (IT) I-Semester (Main) Examination, November / December 2012****Subject : Information Security
(Elective-III)****Time : 3 Hours****Max. Marks: 75****Note: Answer all questions of Part - A and answer any five questions from Part-B.****PART – A (25 Marks)**

1. Write about the information characteristics integrity and confidentiality. (3)
2. What is a Threat? List the different threat groups? (2)
3. How is Risk management integrated into Sec SDLC? (2)
4. List the three general categories of unethical and illegal behaviour. (3)
5. Define a standard. (2)
6. State the purpose of a content filter. (2)
7. What is Public Key Cryptography? (3)
8. Comment on the strengths and weakness of DES. (3)
9. Formulate the requirements for a digital signature. (3)
10. Draw SSL Protocol Stack. (2)

PART – B (5x10=50 Marks)

11. What is an Attack? Discuss about any six listed attacks. (10)
- 12.(a) Justify the need for Data classification. Write about classification and management of data. (6)
(b) How is risk management done? (4)
13. Explain how Scanners and analysis tools assists security and Network Administrators in handling attacks. (10)
14. Discuss AES algorithm in detail. Mention the features of AES that are different from other symmetric key based encryption algorithms. (10)
15. In detail explain the process involved in generating a 160 bit message digest using SHA-1 algorithm. (10)
- 16.(a) How are firewalls used to protect a network against threats? (5)
(b) Give the overview of SET. (5)
- 17.(a) Write about the five components of an Information System. (5)
(b) List the ten commandments of computer Ethics. (5)

FACULTY OF INFORMATICS**B.E. 4/4 (IT) I-Semester (Main) Examination, November / December 2012****Subject : Software Reuse Techniques
(Elective-III)****Time : 3 Hours****Max. Marks: 75****Note: Answer all questions of Part - A and answer any five questions from Part-B.****PART – A (25 Marks)**

1. What are software reuse success factors? (2)
2. Write about applications, components and subsystems. (3)
3. Write the intent of abstract factory and builder patterns. (2)
4. What are the participants and benefits of singleton pattern? (3)
5. Define behavioural patterns and list them. (3)
6. Write the structure and participants of proxy pattern. (3)
7. Describe an example of Whole-part pattern. (2)
8. Write the intent of iterator and visitor pattern. (2)
9. Illustrate about Model-view-controller pattern with the help of an example. (3)
10. Write the intent and context of blackboard pattern. (2)

PART – B (5x10=50 Marks)

- 11.(a) Describe how to specialize some components before reuse. (5)
(b) Explain how component systems export components via facades. (5)
- 12.(a) Define a Design pattern and explain its essential elements. (5)
(b) Write a step-by-step approach to use a design pattern. (5)
13. Explain the intent, structure consequences, participants of the following patterns: (5+5)
(a) Composite pattern
(b) Decorater pattern
14. Describe in detail about the chain of responsibility pattern. (10)
15. Write the intent, motivation, structure and known uses of the following patterns. (5+5)
(a) Observer (b) Template
16. Write the intent, structure, motivation, applicability of the following patterns. (5+5)
(a) Master-slave (b) Mediator
17. Describe in detail about the Layers Architectural pattern. (10)
