

FACULTY OF INFORMATICS
B.E. 4/4 (IT) I Semester (Main) Examination, Dec. 2011
INFORMATION SECURITY (Elective – II)

[Max. Marks: 75]

Time: 3 Hours]

Note : Answer all questions from Part A. Answer any five questions from Part B.

PART – A**(25 Marks)**

1. What are the general categories of information classification? 2
2. What are the functions that information security is supposed to perform for an organization? 3
3. Differentiate between direct and indirect attacks. 2
4. How does a operation of a virus differ from a worm. 3
5. How do content filters protect the system of an organization from nuisance. 3
6. Differentiate between symmetric and public key cryptography. 2
7. Explain how hash algorithms are used to implement the concept of message digests. 3
8. How is non repudiation achieved by public key encryption? 3
9. What is the primary purpose of the SET protocol? 2
10. What are services provided by the SSL record protocol? 2

PART – B**(50 Marks)**

11. Describe in detail the phases of Sec SDLL and the major activities involved in each stage. 10
12. Explain the following types of attack : 10
 - a) Denial of service
 - b) Spoofing
 - c) Man in the middle
 - d) Buffer overflow.



13. a) How is the valuation of information assets carried out with an organization ? 6
b) What are access controls with respect to information security ? 2
c) How can access controls enhance the information security threshold in an organization ? 2
14. a) How are firewalls used to protect a network against threats ? 5
b) What are the various types of firewalls ? 5
15. Explain in detail the RSA algorithms. 10
16. a) How does an Intrusion Detection system enhance the level of protection available to a network ? 4
b) Explain the main features of the following encryption algorithms 6
i) IDEA
ii) AES.
17. Write short notes on **any two** of the following : 10
a) Best practices for use of firewalls
b) CIA triangle
c) Risk management.
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