

LIB
13/6/14 FN

Reg. No. :

--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Question Paper Code : 61211

M.E./M.Tech. DEGREE EXAMINATION, MAY/JUNE 2014.

Second Semester

Computer Science and Engineering

CS 9224/CS 924 — INFORMATION SECURITY

(Common to M.E. Software Engineering, M.Tech. Information Technology and
M.Tech. Information and Communication Technology)

(Regulation 2009)

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

PART A — (10 × 2 = 20 marks)

1. Define confidentiality.
2. Define principle of Attenuation of privilege.
3. What is public key cryptography?
4. List the goal of key exchange.
5. State the principle of psychological acceptability.
6. Differentiate static and dynamic identifiers?
7. Define Vulnerability.
8. Compare and contrast preventive and detective controls.
9. Define consistency check.
10. List the levels of refinement.

PART B — (5 × 16 = 80 marks)

11. (a) (i) Explain the Access control matrix model in detail. (8)
(ii) Discuss the Take-Grant protection model. (8)

Or

- (b) (i) Write the basics of Safety analysis. (4)
(ii) Explain in detail the various security policies. (12)
12. (a) (i) What is key revocation? Explain. (8)
(ii) Describe how to map the selection of a key for the DES into the problem of generating random numbers (8)

Or

- (b) (i) Explain Kerberos, the key exchange protocol in detail. (8)
(ii) Discuss cryptography key infrastructure. (8)
13. (a) (i) Discuss security issues in domain name service. (4)
(ii) Explain the creation and maintenance of Access Control lists. (12)

Or

- (b) (i) Explain confinement problem in detail. (8)
(ii) Describe Ring-Based Access Control. (8)
14. (a) (i) Write note on vulnerability analysis. (8)
(ii) Discuss various auditing techniques. (8)

Or

- (b) (i) How to prevent intrusion? Explain. (8)
(ii) Elaborate the risk control strategies that help to guide an organization. (8)
15. (a) (i) Explain Firewall and proxies in detail. (8)
(ii) Describe the analysis of the network infrastructure. (8)

Or

- (b) Discuss the user and program security. (16)