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**Question Paper Code : 31502**

B.E./B.Tech. DEGREE EXAMINATION, NOVEMBER/DECEMBER 2013.

Eighth Semester

Computer Science and Engineering

IT 2042/IT 706/10177 ITE 33 — INFORMATION SECURITY

(Common to Seventh Semester Information Technology)

(Regulation 2008/2010)

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

PART A — (10 × 2 = 20 marks)

1. Define information security.
2. What are the characteristics of information?
3. Why is information security a management problem?
4. What is meant by active attack and passive attack?
5. What is meant by risk?
6. What is risk mitigation?
7. What is information security policy?
8. What are the continuity strategies?
9. What is cryptology?
10. What are the credentials of information security professionals?

PART B — (5 × 16 = 80 marks)

11. (a) (i) Describe the NSTISSC security model. (4)  
(ii) Describe the components of information system and their security. (12)

Or

- (b) (i) Discuss the history of information security. (4)  
(ii) Explain the security system development life cycle. (12)

12. (a) (i) Explain the four important functions of information security in an organization. (8)  
(ii) Describe the major types of attacks in detail. (8)

Or

- (b) (i) Discuss the different kinds of threats to an information security. (8)  
(ii) Explain the ethical concepts in information security and the deterrence to illegal and unethical behaviour. (8)

13. (a) Briefly discuss the risk assessment and the documenting its results. (16)

Or

- (b) Explain the various risk control strategies that help an organization. (16)

14. (a) Write short notes on the following :

- (i) NIST models (8)  
(ii) ISO 17799/BS7799. (8)

Or

- (b) (i) Describe the VISA international security model. (8)  
(ii) Explain the design of security architecture in detail. (8)

15. (a) Explain the various types of intrusion detection systems. (16)

Or

- (b) Explain the various access controls used for providing physical security. (16)