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Question Paper Code : X60744

B.E./B.Tech. DEGREE EXAMINATIONS, NOVEMBER/DECEMBER 2020

Eighth Semester

Computer Science and Engineering

IT 2042/IT 706/10144 CSE58/10177 ITE33 – INFORMATION SECURITY

(Common to Seventh Semester Information Technology)

(Regulations 2008/2010)

Time : Three Hours

Maximum : 100 Marks

Answer ALL questions

PART – A

(10×2=20 Marks)

1. Define information security.
2. List the critical characteristics of information.
3. What are the various types of malware ? How do worms differ from viruses ?
4. What is the best method for preventing an illegal or unethical activity ?
5. What is meant by risk ?
6. What is risk mitigation ?
7. What are the types of information security policies ?
8. What is contingency planning ?
9. What is the problem faced by Signature-based IDS ?
10. Define footprinting.



11. a) List and explain the various components of an information system.
(OR)
b) Explain the components of Systems Development Life Cycle (SDLC) with neat sketch.
12. a) i) Explain the four important functions of information security in an Organization. (8)
ii) Explain the ethical concepts in information security. (8)
(OR)
b) Explain the major types of attacks in detail. (16)
13. a) Not every organization has the collective will or budget to manage each vulnerability through the application of controls and therefore each organization must define the level of risk it is willing to live with. With reference to the above concept, explain risk management.
(OR)
b) Discuss about various risk control strategies adopted by an organizational management to ensure security of information.
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) What is a firewall? Explain the different types of firewall with implementation model and configuration.
(OR)
b) i) Explain the various components of single round DES encryption algorithm with neat diagram. (10)
ii) In a public key crypto system using RSA algorithm, you catch the cipher text 11 sent to a user whose public key is (7, 187). What is the plain text message? (6)
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