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Question Paper Code: 52R05

M.E. DEGREE EXAMINATION, NOV 2019

Second Semester

Computer Science and Engineering

15PCS205 – NETWORK SECURITY

(Regulation 2015)

Duration: Three hours

Maximum: 100 Marks

Answer ALL Questions

PART - A (5 x 1= 5 Marks)

1. Electronic Code Book is a kind of _____ CO1- R
(a) Stream cipher (b) Block cipher
(c) Transposition cipher (d) Asymmetric cipher
2. _____ are very crucial for success of RSA algorithm. CO2 -R
(a) Integers (b) Prime numbers (c) Negative number (d) Fraction
3. Which authentication method ensures authentication using a secret shared key? CO3- R
(a) Windows Authentication (b) Preshared keys
(c) Kerberos v5 (d) Kerberos v5
4. The payment gateway sends back an _____ message to the merchant. CO4 -R
(a) Authorization response (b) Request
(c) Acknowledgement (d) No response
5. In _____, the virus places an identical copy of itself into other programs or _____ into certain system areas on the disk. CO5- R
(a) Dormant phase (b) Propagation phase (c) Triggering phase (d) Execution phase

PART – B (5 x 3= 15Marks)

6. Encrypt 'do it at 10 pm' using rail fence cipher. CO1-U
7. List the requirements of a hash function. CO2-U
8. Why is an outer IP header required in a tunnel mode IPSec communication? CO3-U
9. How does TLS differ from SSL? CO4-U
10. It is difficult to enforce OS controls for back doors. Justify. CO5-U

PART – C (5 x 16= 80 Marks)

11. (a) Explain Blowfish algorithm with a neat diagram. CO1- U (16)
Or
(b) Explain AES algorithm with neat diagrams. CO1- U (16)
12. (a) Explain SHA -512 algorithm with a neat block diagram CO2- U (16)
Or
(b) Explain DSA algorithm with example. CO2- U (16)
13. (a) A multinational company has off shore offices across the world with central office in India. Discuss the kinds of communication networks to be established between the offices. Explain the role of security associations for secured communications between them. CO3-Ana (16)
Or
(b) Explain Key management mechanism in IPSec. CO3-Ana (16)
14. (a) Explain SET protocol in detail with various components. CO4 -U (16)
Or
(b) Explain the creation and verification of dual signature with neat diagrams. CO4 -U (16)
15. (a) Explain the different types of viruses and countermeasures in detail. CO5-U (16)
Or
(b) Discuss intrusion detection methods in detail. CO5-U (16)