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Question Paper Code : 40982

B.E./B.Tech. DEGREE EXAMINATIONS, NOVEMBER/DECEMBER 2024.

Fourth Semester

Electronics and Communication Engineering

EC 3401 – NETWORKS AND SECURITY

(Regulations 2021)

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

PART A — (10 × 2 = 20 marks)

1. Define Network.
2. List the Flow and Error Control protocols.
3. What is meant by unicast routing?
4. What do you mean by interdomain routing?
5. What do you mean by congestion control?
6. Define Domain name System.
7. Define attack.
8. What is the importance of Hash function in network security.
9. Differentiate Cryptography and Steganography.
10. What are the four types of Block chain?

PART B — (5 × 13 = 65 marks)

11. (a) Discuss in detail about IEEE 802.11. (13)

Or

- (b) Explain about Bluetooth architecture in detail. (13)

12. (a) Explain in detail about IPV4 addressing. (13)

Or

(b) Write in detail about ICMP and Mobile IP. (13)

13. (a) Explain in detail about Congestion Avoidances mechanism by considering an example. (13)

Or

(b) Write in detail about QoS protocol. (13)

14. (a) Explain in detail about AES Algorithm and 3DES algorithm. (13)

Or

(b) Explain about SHA algorithm in detail. (13)

15. (a) Explain about Physical attacks and counter measures. (13)

Or

(b) (i) List and explain the tools used in cryptography. (7)

(ii) Explain Hardware Trojans. (6)

PART C — (1 × 15 = 15 marks)

16. (a) Explain the importance of Security? Explain in detail about the importance of RSA in network Security.

Or

(b) Evaluate Side channel attacks and discuss how to overcome using Blockchain Technology.