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Question Paper Code: U9907

B.E. / B.Tech. DEGREE EXAMINATION, APRIL 2024

Professional Elective

Electronics and Communication Engineering

21ECV907 CYBER SECURITY SYSTEMS

(Regulations 2021)

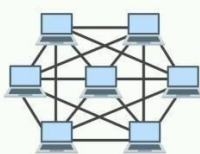
Duration: Three hours

Maximum: 100 Marks

Answer ALL Questions

PART A - (5 x 1 = 5 Marks)

1. The number of cables/links required for the topology given below CO1- U



- (a) 42 (b) 21 (c) 23 (d) 25
2. Which of the following tool is used in Wi-fi hacking? CO1- U
(a) Aircracking (b) wireshark (c) Norton (d) None of the above
3. An asymmetric-key cipher uses. CO1-U
(a) 1 Key (b) 2 Key (c) 3 Key (d) 4 Key
4. Which of the following is not a cybercrime? CO1-U
(a) Denial of Service (b) Man in the Middle (c) Malware (d) AES
5. Which of the following is defined as an attempt to steal, spy, damage or destroy computer systems, networks, or their associated information? CO1-U
(a) Cyber attack (b) Computer security (c) Cryptography (d) Digital hacking

PART – B (5 x 3= 15 Marks)

6. How do the layers of the Internet model correlate to the layers of the OSI model? CO1-U
7. What is phishing and how it can be prevented? CO1-U

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| 8. | What is Cryptography? | CO1-U | |
| 9. | “Data privacy is not data security”, how? | CO2- App | |
| 10. | Distinguish ISO and NIST standards? | CO1-U | |

PART – C (5 x 16= 80 Marks)

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| 11. | (a) Explain the representation of nodes for a network in detail. | CO1-U | (16) |
| | Or | | |
| | (b) Discuss in detail about OSI model with neat sketch. | CO1-U | (16) |
| 12. | (a) Describe in detail about different layers in Cyber security. | CO1-U | (16) |
| | Or | | |
| | (b) Explain the cyber security violence with example. | CO1-U | (16) |
| 13. | (a) Encrypt and Decrypt the message “Open Web Application Security” using poly alphabetic caesar cipher algorithm and analyze using alternate key shift. | CO4- Ana | (16) |
| | Or | | |
| | (b) Encrypt and Decrypt the message “Cyber Security And Systems” using mono and poly alphabetic caesar cipher algorithm and analyze which algorithm can apply for larger data. | CO4- Ana | (16) |
| 14. | (a) Explain the concepts involved in online privacy with a proper diagram. | CO1-U | (16) |
| | Or | | |
| | (b) Discuss the benefits of Email security for Enterprises. | CO1-U | (16) |
| 15. | (a) What are the Regulations are following in General Data Protection Regulation (GDPR) in the protection of Government Information security system? | CO1-U | (16) |
| | Or | | |
| | (b) What are the four implementation specifications required by administrative safeguards under Health Insurance Portability and Accountability? | CO1-U | (16) |