

C

Reg. No. :

--	--	--	--	--	--	--	--	--	--	--

Question Paper Code: 99441

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

Professional Elective

Electronics and Communication Engineering

19UEC941- CYBER SECURITY

(Regulation 2019)

Duration: Three hours

Maximum: 100 Marks

Answer ALL Questions

PART A - (5 x 1 = 5 Marks)

1. PDU of Data Link Layer is known as _____ CO1 U
(a) Packets (b) Frames (c) Data (d) Segments
2. Which of the following tool is used in Wi-fi hacking? CO1 U
(a) Air cracking (b) wire shark (c) Norton (d) None
3. An asymmetric-key cipher uses-----number of keys. CO1 U
(a) 1 Key (b) 2 Key (c) 3 Key (d) 4 Key
4. Which of the following is defined as an attempt to harm, damage or CO1 U
cause threat to a system or network?
(a) Digital crime (b) Threats (c) System hijacking (d) Cyber Attack
5. -----requires that personal data must be processed securely using CO1 U
appropriate technical and organizational measures.
(a) FISMA (b) SOX (c) GDPR (d) HIPPA

PART – B (5 x 3= 15Marks)

6. Which layer in the Internet model is the user support layer? CO1 U
7. Compare Passive & Active Attacks. CO1 U
8. Prove that 3 is a primitive root of 7. CO4 Ana
9. List the applications of Data Mining and Big data with example. CO1 U

10. Describe about the 4 key components of GDPR. CO1 U

PART – C (5 x 16= 80Marks)

11. (a) Discuss in detail about OSI model with neat sketch. CO1 U (16)

Or

(b) Describe in detail about various network topologies. List out its merits and demerits. CO1 U (16)

12. (a) Apply the different types of OWASP algorithms to secure the information in network CO2- App (16)

Or

(b) Apply the different types of coding practices to secure the information in network CO2- App (16)

13. (a) Encrypt and Decrypt the message “Sethu Institute of Technology” 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 Management” using mono and poly alphabetic caesar cipher algorithm and analyze which algorithm can apply for larger data. CO4- Ana (16)

14. (a) Apply the concept of DNT setting in the web browser to protect our privacy in online. CO2- App (16)

Or

(b) Apply the concept of PPDM to extract relevant information from the databases of Financial Banking. CO2- App (16)

15. (a) How does my firewall management help with NIST Standards and the NIST Cyber security Framework? What NIST standards relate to firewall management? CO4- Ana (16)

Or

(b) Analyze the Federal Information Security Modernization Act (FISMA) requires government agencies to implement an information security program CO4- Ana (16)