C **Reg. No. :** | | | | | | | | | | |

Question Paper Code: 99441

B.E. / B.Tech. DEGREE EXAMINATION, NOV 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. Which one of the following is the most common internet protocol? CO1-U

   (a) HTML (b) NetBEUI (c) TCP/IP (d) IPX/SPX

2. The DNS would translate any Domain name into _____. CO1-U

   (a) IP (b) URL (c) Binary (d) Hex

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 cause threat to a system or network? CO1-U

   (a) Digital crime (b) Threats (c) System hijacking (d) Cyber Attack

5. ----------requires that personal data must be processed securely using appropriate technical and organizational measures. CO1-U

   (a) FISMA (b)SOX (c)GDPR (d) HIPPA

PART – B (5 x 3= 15Marks)

6. Compare LAN, MAN and WAN. CO1- U
7. Why Cyber security is important? 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)	Explain the representation of nodes for a network in detail.	CO1-U	(16)
		Or		
	(b)	Explain in detail how the data is transmitted from sender to receiver and also the process involved in detail.	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 caeser 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 caeser 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)	Analyze an information security standard developed to enhance cardholder data security for organizations that store, process or transmit credit card data.	CO4- Ana	(16)
		Or		
	(b)	How the National Institute of Standards and Technology (NIST) at the U.S. Department of Commerce define the Framework to secure the information across the critical infrastructure sectors?	CO4- Ana	(16)