QP Code: RN21BTECH557 | Reg. No | | | | | | | | | | | AR 21

Gandhi Institute of Engineering and Technology University, Odisha, Gunupur
(GIET University)

B. Tech. (Seventh Semester - Regular) Examinations, November – 2024

21BCSPE47011 – Cryptography & Network Security

(CSE)

Time: 3 hrs | Maximum: 70 Marks

Answer ALL questions

(The figures in the right hand margin indicate marks)

PART – A **(2 x 5 = 10 Marks)**

Q.1. Answer ***ALL*** questions	CO #	Blooms Level
a. List and briefly define Attacks & Its categories of passive and active security attacks.	CO1	K1
b. Differentiate Double DES and Triple DES structure.	CO2	K2
c. Define Digital Signature with Application.	CO3	K1
d. Explain briefly about the protocols used in Web security.	CO4	K1
e. Explain the Role of MIME Protocol in Email security.	CO4	K1

PART – B **(15 x 4=60 Marks)**

Answer ***All*** the questions	Marks	CO #	Blooms Level
2. a. Briefly Explain about list of Security Services and Mechanisms.	8	CO1	K1
b. Encrypt the following using play fair cipher using the keyword MONARCHY, Plain Text- "LIFE IS BEAUTIFUL".	7	CO1	K3
(OR)			
c. Given Plaintext- CIPHER, keyword- HILL, using Hill cipher Technique.	8	CO1	K3
d. State Chinese Remainder Theorem and find X for the given set of congruent equations using CRT? X = 1(mod 5), X = 1 (mod 7) , X = 3 (mod 11)	7	CO1	K3
3.a. Draw the general structure of DES and explain the encryption/ decryption process.	8	CO2	K3
b. Explain Encryption/Decryption process in AES Algorithm.	7	CO2	K2
(OR)			
c. Explain the Feature of Public Key Cryptography with differentiation between Symmetric & Asymmetric cryptography.	8	CO2	K2
d. Define Hash function Algorithms. Explain in Details about SHA & MD5.	7	CO2	K1
4.a. Explain briefly about the Kerberos – X.509 Authentication services	8	CO3	K1
b. Differentiate Between Host based & Network based Intrusion Detection System?	7	CO3	K2
(OR)			
c. Draw the architecture of Firewall and Its Types & Application.	8	CO3	K3
d. Explain briefly about working process of Secure Electronic Transaction (SET).	7	CO3	K1
5.a. Explain PGP method in Electronic Mail system.	8	CO4	K1
b. Explain use of Transport Layer protocol in Web security.	7	CO4	K1
(OR)			
c. Explain about IP security.	8	CO4	K1
d. Mentioned the use of Protocols in Web security.	7	CO4	K1

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