

Total number of printed pages: 02

UG/8th Semester/UCSE815

2023

Cyber Law and Ethics

Full Marks : 100

Time : Three hours

The figures in the margin indicate full marks for the questions.

Answer any five questions.

- Central Institute Of Technology
Kokrajhar :: Bodoland
ESTD. : 2006
असतो मा सद्गमय
तमसा मा ज्योतिर्गमय
1. a) Discuss the terms Cyber space and cyber laws. What are the various types of attacks? 5+5=10
 - b) What do you mean by Controller of Certifying authorities? What are the functions of Controller? 5+5=10
 2. a) What is cybercrime? How do you classify cybercrimes? Explain. 10
 - b) Discuss about the Information Technology (IT) Act, 2000 in details. 10
 3. a) What do you mean by Intellectual Property Right? What is the Need for Intellectual Property Rights (IPR)? 5+5=10
 - b) Discuss the various types of Intellectual Property Rights in details. 10
 4. a) Show the encryption and decryption process of the plaintext "ATTACK IS POSEPONED" using Hill cipher with key = [3 5; 2 3] 15
 - b) Show the encryption and decryption process of the plaintext "CRYPTOGRAPHY AS A SECURITY TOOL" using Play fair cipher with key = "BALLOONS". 5
 5. a) What is Shamir's Secret Sharing scheme? Show all the phases to share a secret = 3, among six participants P1, P2, P3, P4, P5 and P6 using Shamir's secret sharing scheme with a threshold value k=4. Given prime no. p= 17 and $x_1=1, x_2=2, x_3=3, x_4=4, x_5=5$ and $x_6=6$. Choose the polynomial coefficients according to your choice. 10
 - b) How keys are exchanged in Diffie-Hellman algorithm? What are the weaknesses of Diffie-Hellman? 5+5=10
 6. Write short notes on any four of the following 4*5=20
 - a) Denial of service attack

- b) Firewalls
- c) Intellectual property
- d) Cybercrimes in India
- e) Primitive root of a prime number

7. Write the difference on any four of the following

4*5=20

- a) Electronic and digital signatures
- b) Data protection and privacy
- c) Access and Addressee
- d) Trade mark and Patent
- e) Cyber laws and cyber Ethics

