

Council for Technical Education and Vocational Training
Office of the Controller of Examinations
Sanothimi, Bhaktapur

Regular/Back/Scholarship Exam – 2083 Bhadra/Ashwin

Program:	Diploma in Information Technology	Full Marks: 80
Year/ Part:	III/II (2022)	Pass Marks: 32
Subject:	Cyber Security	Time: 3 hrs.

Candidates are required to give their answers in their own words as far as practicable. The figures in the margin indicate full marks.

Attempt any EIGHT Questions.

1. Define information system and cyber threats. Describe the types of cyber threats. (5+5)
2. What are Encryption and Decryption? Explain the importance of security software and Browser security in cyber. (4+6)
3. Define digital signature. Explain types of cryptography. (4+6)
4. What is cyber law? Why is it important in context of Nepal? Discuss the key areas it addresses. (2+3+5)
5. What do you mean by forensic technology? Explain evidentiary reporting in brief. (5+5)
6. What do you mean by ethical hacking? Discuss ethical issues in cyber security. (4+6)
7. Define security in cloud. Explain mobile application security and web application security. (4+3+3)
8. Discuss the codes of ethics, conduct and practice of IT professionals. (10)
9. Write short notes on: (any TWO) (2x5)
 - a) VPN
 - b) Asymmetric key cryptography.
 - c) Containment, eradication and recovery.
 - d) Cyber-crimes.

Good Luck !

Program: Diploma in Information Technology

Full Marks: 80

Year/Part: III/II (2022)

Pass Marks: 32

Subject: Cyber Security

Time: 3 hrs.

Candidates are required to give their answers in their own words as far as practicable. The figures in the margin indicate full marks.

Attempt any EIGHT questions.

1. What is cyber-crime? Explain different cyber threat with its types. **[4+6]**
2. Explain different types of firewalls. How does each type function to protect a network? **[5+5]**
3. Explain classical encryption/decryption method. What is digital signature and how does it works? **[5+5]**
4. What is cyber law? Why is it important in context of Nepal? Discuss the key areas it addresses. **[2+3+5]**
5. What is forensic technology? Explain incident detection and analysis. **[2+8]**
6. Explain the key differences between mobile application security and web application security. **[10]**
7. What are the ethical challenges for cyber security professionals? Explain privacy in brief. **[8+2]**
8. What is internet fraud? What are some common types of internet fraud that people should be aware of? **[2+8]**
9. Write short notes on: (any TWO) **[2×5]**
 - a. Containment, eradication and recovery
 - b. VPN
 - c. Encryption and decryption
 - d. Trademarks

Good Luck !

Program: Diploma in Information Technology

Full Marks: 80

Year/Part: III/II (2022)

Pass Marks: 32

Subject: Cyber Security

Time: 3 hrs.

Candidates are required to give their answers in their own words as far as practicable. The figures in the margin indicate full marks.

Attempt any FIVE questions.

1. a. Define information system and cyber threats. Describe the types of cyber threats. **[4+4]**
b. What is VPN? Describe the functionality of a VPN in securing a network. **[8]**
2. a. How does encryption help in maintaining data confidentiality? Explain. **[8]**
b. Differentiate between symmetric and asymmetric cryptography. Explain the implementation RSA with example. **[2+6]**
3. a. What do you mean by cyber risk management? Explain cyber risk management process. **[2+6]**
b. Explain common threats in web application security. **[8]**
4. a. What do you mean by forensic technology? Explain evidentiary reporting in brief. **[4+4]**
b. Describe the process of digital evidence collection. **[8]**
5. a. Define intellectual property. Explain its relevance to cyber security. **[2+6]**
b. Discuss the codes of ethics, conduct and practice of IT professionals. **[8]**
6. Write short notes on: (any FOUR) **[4×4]**
 - a. Firewall
 - b. Cyber law
 - c. Containment, eradication and recovery
 - d. Electronic transaction act of Nepal
 - e. Internet fraud

Good Luck !

Program: Diploma in Computer Engineering

Full Marks: 40

Year/Part: III/I (2018)

Pass Marks: 16

Subject: Cyber Security and Social Ethics

Time: 1½ hrs.

Candidates are required to give their answers in their own words as far as practicable. The figures in the margin indicate full marks.

Attempt any FOUR questions.

1. a. Define cyber security. Explain the different types of attack in cyber. [5]
b. What is VPN? Explain about anti malicious software. [2+3]
2. a. What is cryptography? Write about digital signature. [1+4]
b. Explain why SSL is required in an e-commerce website. [5]
3. a. What is privacy? Explain cyber law in Nepal. [1+4]
b. What is information security process? Explain information security best practice. [1+4]
4. a. Define intellectual property. What are different types of intellectual property? Explain in brief. [1+4]
b. What is ethical dissent and whistle blowing? Explain the role of the professional in public policy. [1+4]
5. Write short notes on: (any TWO) [2×5]
 - a. Cyber Security and Risk Assessment
 - b. Internet Fraud
 - c. Intrusion Detection

Good Luck !

Program: Diploma in Information Technology

Full Marks: 40

Year/Part: III/II (2016)

Pass Marks: 16

Subject: Cyber Security & Social Ethics

Time: 1 hr. 30 min.

Candidates are required to give their answers in their own words as far as practicable. The figures in the margin indicate full marks.

Attempt Any Four questions.

1. a. Why cyber security is needed? Explain different types of hacker. [2+3]
b. Explain about anti-malicious software. [5]
2. a. Explain asymmetric key cryptography. [5]
b. Write about cyber law in Nepal. [5]
3. a. What do you mean by freedom of speech? Explain. [5]
b. How can you deal with cyber harassment and discrimination? [5]
4. a. What is cryptography? Explain digital signature models. [5]
b. Explain whistle-blowing in ethical responsibilities of cyber security. [5]
5. Write short notes on : (Any Two) [2×5=10]
 - a. Internet fraud
 - b. Software risk
 - c. Firewall
 - d. Trademarks

Good Luck !

Program: Diploma in Computer Engineering

Full Marks: 40

Year/Part: III/I (2018 New Course)

Pass Marks: 16

Subject: Cyber Security & Professional Ethics

Time: 1½ hrs

Candidates are required to give their answers in their own words as far as practicable. The figures in the margin indicate full marks.

Attempt Any Four questions.

1. a. Define cyber Security. Briefly explain about the different techniques used by a hacker. [5]
b. Define Firewall. Explain in brief about its types. [5]
2. a. Explain why SSL is required in an e-commerce website? [5]
b. Define Digital Signature? Explain types of Cryptography. [5]
3. a. Write about cyber law in Nepal. [5]
b. Define Security Policy. Explain brief about its importance. [5]
4. a. Define Ethical dissent and whistle-blowing? Explain the role of the professional in public policy. [5]
b. What is code of ethics? How to deal with harassment and discrimination in Nepal? [5]
5. Write short notes on : (Any Two) [2×5=10]
 - a. Software risk
 - b. Risk assessment and management
 - c. Intellectual Property Right
 - d. Intrusion Detection

Good Luck !

Program: Diploma in IT Engineering

Full Marks: 40

Year/Part: III/II (2016)

Pass Marks: 16

Subject: Cyber Security & Social Ethics

Time: 1 hrs. 30 min.

Candidates are required to give their answers in their own words as far as practicable. The figures in the margin indicate full marks.

Attempt Any Four questions.

1. a. What is cyber crime? Write down different types of attack in cyber. [5]
b. Explain SSL and Encryption in brief. [5]
2. a. What is cryptography? Explain Asymmetric key cryptography. [5]
b. What are legal issues in information security? Explain information security process. [5]
3. a. What is computer forensics? What are the steps of collecting computer evidence? [5]
b. Define intellectual property. What are professional ethics? [5]
4. a. What is whistle blowing? Write the condition in which whistle blowing is more justified. [5]
b. What is software risk? Write the cause of software failure. [5]
5. Write short notes on: (Any Two) [2×5=10]
 - a. Trademarks
 - b. Digital signature
 - c. Cyber law in Nepal
 - d. VPN

Good Luck !

Office of the Controller of Examinations

Sanothimi, Bhaktapur

Regular/Back Exam-2078, Kartik/Mangsir

Program: Diploma in Computer Engineering

Full Marks: 40

Year/Part: III/I (2018 New Course)

Pass Marks: 16

Subject: Cyber Security & Social Ethics

Time: 1.5 hrs

Candidates are required to give their answers in their own words as far as practicable. The figures in the margin indicate full marks.

Attempt Any Four questions.

1.
 - a. What is cybercrime? Write down different types of attack in cyber. [5]
 - b. Explain Firewall and virtual private Networks in brief. [5]
2.
 - a. What is cryptography? Explain confidentiality, Integrity and Authentication. [5]
 - b. Write about the cyber Law in Nepal. [5]
3.
 - a. Define intellectual property. What are different types of intellectual property? Explain any two. [5]
 - b. What is incident analysis? Write about the steps involve in incident investigation process. [5]
4.
 - a. What are the cyber Laws for dealing with online harassment in Nepal? [5]
 - b. What is ethical dissent and whistle blowing? Explain the role of the professional in public policy. [5]
5. Write short notes on: (Any Two) [2×5=10]
 - a. Digital signature
 - b. Security policy
 - c. Risk assessment and management
 - d. Internet Fraud

Good Luck !

Program: Diploma in Information Technology

Full Marks: 40

Year/Part: III/II (2016)

Pass Marks: 16

Subject: Cyber Security and Social Ethics

Time: 1 hr. 30 min.

Candidates are required to give their answers in their own words as far as practicable. The figures in the margin indicate full marks.

Attempt any FIVE questions.

1. What is cyber security? What are various types of cyber-attacks? Explain them. **[3+5]**
2. What do you mean by virtual private networks? Explain about secure software and browser security. **[2+6]**
3. What is information security? Explain best practices for information security. **[2+6]**
4. Define forensic. Write down technologies used in forensic science. **[2+6]**
5. What is cyber law? Explain about intellectual property and its rights. **[2+6]**
6. Write shot notes on: (any TWO) **[2×4]**
 - a. Software Risks
 - b. Digital Signature
 - c. Nature of Professionalism in Information Technology

Good Luck !