TED (15) – 5136
(Revision – 2015)

N22 - 07542

Reg.No……..
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DIPLOMA EXAMINATION IN ENGINEERING/TECHNOLOGY/MANAGEMENT/ COMMERCIAL PRACTICE – NOVEMBER – 2022

INFORMATION SECURITY

(Maximum Marks : 100) (Time : 3 hours)

PART – A
(Maximum Marks : 10)

Marks

I. Answer **all** questions in one or two sentences. Each question carries 2 marks.

1. List terms associated with confidentiality.
2. Define authentication.
3. What is digital signature.
4. List types of firewall.
5. Define DDoS. (5x2=10)

PART –B
(Maximum Marks : 30)

II. Answer any **five** of the following questions. Each question carries 6 marks.

1. Explain in detail about symmetric encryption technique with neat sketch.
2. Write short note on elements in access control.
3. Explain the way to use hash code in authentication with neat diagram.
4. Describe honeypots.
5. Discuss UNIX file access control.
6. Explain about amplifier attack.
7. Discuss about source address spoofing.

(5x6=30)

PART – C

(Maximum Marks : 60)

(Answer **one full** question from each unit. Each full question carries 15 marks)

UNIT – I

III. (a) Describe stream cipher and block cipher. (8)

(b) Explain about public key encryption technique. (7)

OR

IV. (a) Briefly explain the security mechanism in OSI security architecture. (8)

(b) Write short note on MAC. (7)

UNIT – II

V. (a) Describe in detail the use of smart token for user authentication. (8)

(b) Explain detail about password selection strategies. (7)

OR

VI. (a) Explain about mandatory access control. (8)

(b) Write notes on access control matrix. (7)

UNIT –III

VII. (a) Discuss the classification and requirements of IDS. (9)

(b) Illustrate SNORT architecture. (6)

OR

VIII. (a) Discuss virus, nature of virus and its propagation. (6)

(b) What is rootkit? Discuss the characteristics of rootkit. (9)

UNIT – IV

IX. (a) Describe about SYN spoofing. (7)

(b) Discuss flooding attacks. (8)

OR

X. (a) Write a note on reflector attacks. (8)

(b) Discuss about packet filtering firewall. (7)

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