



TED (15) – 5136

Reg. No.

(REVISION — 2015)

Signature

DIPLOMA EXAMINATION IN ENGINEERING/TECHNOLOGY/
MANAGEMENT/COMMERCIAL PRACTICE — OCTOBER, 2019

INFORMATION SECURITY

[Time : 3 hours

(Maximum marks : 100)

PART — A

PART — A

(Maximum marks : 10)

Marks

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

1. Define the terms authenticity & accountability.
2. List any two symmetric encryption algorithms.
3. State subjects and objects in access control.
4. Identify classes of intruders.
5. State the concept of source address spoofing.

(5×2 = 10)

PART — B

(Maximum marks : 30)

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

1. Discuss about public key encryption strategy.
2. Describe the means of user authentication.
3. Discuss about biometric accuracy.
4. Describe the types of sensors that can be used in a NIDS.
5. Explain the classification of ROOTKITS.
6. Explain DNS amplification attack.
7. Write the common characteristics of Bastion Host.

(5×6 = 30)

PART — C

(Maximum marks : 60)

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

UNIT — I

- III (a) Explain block cipher and stream cipher. 8
 (b) Discuss the aspects of computer security strategy. 7

OR

- IV (a) Explain briefly the security services in OSI security architecture. 8
 (b) Describe message authentication using MAC with the help of a neat sketch. 7

UNIT — II

- V (a) Explain hashed password scheme and the significance of salt value. 8
 (b) Explain the principle of access control with its relationship to other security functions. 7

OR

- VI (a) Explain UNIX File Access Control. 8
 (b) With the help of block diagrams, describe the working of biometric authentication system. 7

UNIT — III

- VII (a) With neat sketch explain the architecture of distributed intrusion detection system. 9
 (b) Discuss about computer virus and its lifetime phases. 6

OR

- VIII (a) Discuss about the requirements for worm counter measures. 7
 (b) Briefly explain the approaches to host-based intrusion detection. 8

UNIT — IV

- IX (a) Explain DDoS architecture with the help of a neat diagram. 8
 (b) Summarise the goals & techniques of firewall. 7

OR

- X (a) Describe TCP SYN Spoofing attack. 7
 (b) Write short notes on Application level gateway and circuit level gateway. 8
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