

**N 19-01091**

TED (15) 6262  
(Revision 2015)

Reg.No.....  
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DIPLOMA EXAMINATION IN ENGINEERING/TECHNOLOGY/MANAGEMENT/  
COMMERCIAL PRACTICE – OCTOBER/NOVEMBER -2019.

**INFORMATION AND NETWORK 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. Define Availability.
2. List two types of security attacks.
3. Define Asymmetric Cipher.
4. What is message authentication.
5. List two benefits of IP Sec.

(5x2=10)

**PART - B**

(Maximum Marks : 30)

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

1. Discuss One-Time Pad.
2. Discuss Substitution Technique with an example.
3. Compare DES and AES algorithms.
4. Discuss Symmetric Cipher.
5. Describe the basic idea of Message Authentication Code.
6. Explain the properties of Digital Signature.
7. Discuss the applications of IPsec.

[5x6 =30]

**PART - C**

(Maximum marks : 60)

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

**UNIT I**

- III (a) Explain the network security model. (10)
- (b) Explain Transposition technique with an example. (5)

OR

IV Discuss the following substitution Techniques.

- (i) Caesar cipher (ii) Mono-alphabetic cipher (iii) poly-alphabetic cipher (15)

UNIT- II

V Describe the AES method and its encryption and decryption procedure. (15)

OR

VI (a) Differentiate symmetric key and public key encryption. (7)

(b) Explain the Key setup in RSA Algorithm. (8)

UNIT- III

VII Explain the following.

(i) Message Authentication. (5)

(ii) Message Authentication requirements. (5)

(iii) Message Authentication functions. (5)

OR

VIII Discuss Digital signature with neat diagram. (15)

UNIT - IV

IX (a) Discuss HTTPS and its importance in web. (8)

(b) Explain SSH protocol stack with a neat sketch. (7)

OR

X (a) Write a short note on Wireless LAN Security. (9)

(b) Discuss 802.11 i Phases of Operation. (6)

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