

**P.G. DIPLOMA IN INFORMATION SECURITY
(PGDIS)**

Term-End Examination

December, 2016

MSEI-022 : NETWORK SECURITY

Time : 2 hours

Maximum Marks : 50

- Note :**
- (i) *Section - A - Answer all the objective type questions.*
 - (ii) *Section - B - Answer all the very short answer type questions.*
 - (iii) *Section - C - Answer any two short answer type questions out of three.*
 - (iv) *Section - D - Answer any two long answer type questions out of three.*
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SECTION - A

(Attempt all the questions)

- 1. Write True or False :** **1x5=5**
- (a) A list of protocols used by a system, one protocol per layer is called protocol stack.
 - (b) IPSec is designed to provide the security at the transport layer.
 - (c) In tunnel mode IPSec protects the entire IP Packet.
 - (d) Network layer firewall works as a packet filter.
 - (e) Network layer firewall is only stateful never stateless firewall.

2. Fill in the blanks : 1x5=5
- (a) A network of compromised devices owned by attackers is known as _____.
 - (b) Firewalls are often configured to block _____ traffic.
 - (c) Algorithm for performing encryption and decryption is known as _____.
 - (d) An attempt to make a computer resource unavailable to users is called _____ attack.
 - (e) A _____ is a device that forwards packet between networks by processing the routing information in the packet.

SECTION - B

(Attempt all the questions)

3. Write short notes on the following : 5x2=10
- (a) Honey pots
 - (b) Steganography
 - (c) Pretty Good Privacy
 - (d) Asymmetric Cryptography
 - (e) Port scanning tools

SECTION - C

(Attempt any 2 out of 3 short answer type questions)

- 4. How would you quickly test a piece of Cipher text to suggest whether it was likely a result of simple substitution or a transposition ? 5
- 5. Define Vulnerabilities, Threats, Attacks and Controls with suitable example of each. 5
- 6. Explain the main properties of a Hash function. 5

SECTION - D

(Attempt any 2 out of 3 long answer type questions)

7. Explain Identity management. What does Single Sign On (SSO) mean and how is it typically implemented ? 10

 8. Explain digital signature concept in detail. Which key(s) is/are used for signing the document and verifying the signature and why ? 10

 9. Explain IDS and IPS. Is Honey Pot an IDS or IPS ? Justify your answer. 10
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