

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

Term-End Examination

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December, 2014

MSEI-022 : NETWORK SECURITY

Time : 2 hours

Maximum Marks : 50

Note :

Section A – Answer all the objective type questions.

Section B – Answer all the very short answer type questions.

*Section C – Answer any **two** questions out of three.*

*Section D – Answer any **two** questions out of three.*

SECTION A

Attempt all the questions.

1. Write *true* or *false* : *5×1=5*
- (a) The study of how to best implement and integrate cryptography in software applications is itself a distinct field.
- (b) Authentication is the process of verifying the identity of a person.

- (c) The patenting of software is highly controversial.
- (d) A system where one secret key is shared is called asymmetric cryptography.
- (e) Security implies security provided for the transfer of data between the two communicating end points.

2. Fill in the blanks :

5×1=5

- (a) The _____ operates a certification scheme for ISMS auditors.
- (b) BSI, Certification Europe, DNV, JACO IS, KEMA, KPMG, SGS, STQC, SAI Global Limited are the examples of organizations accredited to grant certification against _____ .
- (c) The historian _____ described public-key cryptography as “the most revolutionary new concept in the field since polyalphabetic substitution emerged in the Renaissance.”
- (d) _____ creates verifiable and ordered cryptographic link between current and already issued time-stamp tokens.
- (e) _____ is the preliminary act of organizations, enterprises and institutions to protect their valuable information across the network.

SECTION B

Attempt all the questions.

3. Write short notes on the following : 5×2=10
- (a) Shannon's Maxim
 - (b) Online dispute resolution
 - (c) Secure Sockets Layer (SSL)
 - (d) Padding methods
 - (e) Cipher text

SECTION C

Attempt any two out of three short type questions.

4. How are ICMP messages useful for performing network scans ? 5
5. Explain the application of digital watermarks. 5
6. Write the classification of time stamping. 5

SECTION D

Attempt any **two** out of three long type questions. $2 \times 10 = 20$

7. "Security policies can be useful in ways that go beyond the immediate protection of assets and policing of behaviour." Do you agree with the statement? If yes, justify it in detail. 10

 8. "Encryption can maintain the privacy of the message and also protect the integrity and authenticity of the message." Do you agree with the statement? If yes, justify it in detail. 10

 9. "Cybercrime investigations are time-sensitive." Explain how. 10
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