

**MASTER OF BUSINESS ADMINISTRATION
(MBACT)**

Term-End Examination

December, 2013

MCTE-021 : NETWORK SECURITY

Time : 3 hours

Maximum Marks : 100

*Note : Answer any five questions, Each question carries
20 marks.*

1. Explain the following basic security services with at least one example each. Write also names of security tools available being used for each security service: 20
 - (a) Authentication.
 - (b) confidentiality.
 - (c) Access control.
 - (d) Integrity.
 - (e) Non repudiation.

2. (a) Assume, there is a web-portal developed for some e-commerce applications. Explain the following attacks with an example in respect of application security of a web-portal. 10
 - (i) SQL Injection.
 - (ii) Session - Hijacking.
 - (iii) Cross-site scripting (XSS) flows .
 - (iv) Buffer overflows.
 - (v) Cookie poisoning.

- (b) Write and explain the proactive measures to protect the attacks mentioned at question 2(a). 10

3. What is an operating systems (OS) Hardening ? 20
Write and explain how hardening can be done on various sensitive resources of operating system (Generic) to protect from attacks in mind.
4. (a) What is Denial of service (DOS) attack ? 10
Write and Explain at least five attacks that are to be performed by hackers.
- (b) Write and explain the preventive measure that are to be taken to protect from Denial of service (DOS) attacks. 10
5. (a) What is Network Gateway ? 10
Write and explain various Network Gateway Components.
- (b) What is Intrusion Prevention System (IPS) ? Explain the merits and limitations of its deployment at before and after firewall. 10
6. (a) What is a TCP wrapper ? 10
Explain how TCP wrapper is used to filter network access to internet protocol on Unix-like operating system.
- (b) What is port scanning ? Write and explain various port scanning types. 10
7. Write short notes on the following : 20
- (a) Demilitarized Zone (DMZ)
- (b) VLAN
- (c) Network Connection Hijacking
- (d) LDAP
-