

TRIBHUVAN UNIVERSITY
FACULTY OF MANAGEMENT

Office of the Dean

Sept. - Oct. 2018

Full Marks: 40

Pass Marks: 18

Time: 2 hrs.

BIM / Sixth Semester / IT 225: Computer Security and Cyber Law

Candidates are required to answer all the questions in their own words as far as practicable.

Group "A"

[10 × 1 = 10]

1. Brief Answer Questions:

- i. ✓ List the categories of threats.
- ii. ✓ What are the goals of SSL?
- iii. ✓ What is Access Control Matrix Model?
- iv. ✓ Define active attack.
- v. ✓ State Biba Integrity Model.
- vi. ✓ What do you mean by Trojan horse?
- vii. ✓ Write any four types of malware.
- viii. ✓ What are the types of Intrusion Detection Technique?
- ix. ✓ What are the limitations of SMTP?
- x. ✓ How keyboard can be security threat?

Group "B"

[5 × 4 = 20]

Exercise Problems:

2. ✓ Suppose twelve client computers and server exist in Network. How can you allow only three computers to access that server?
3. ✓ Identify the threats in web and suggest the solutions to protect it.
4. ✓ Encrypt string "hello world" using any one encryption algorithm.
5. ✓ Sita wants to Send the message $M = 13$ to Ram. Using Ram's public and private keys, calculate the ciphertext C , and the value for R when Ram recovers the message.

Given:

Ram's private key $(n,d) = (33,7)$

Ram's public key $(n,e) = (33, 3)$

6. ✓ How is digital signature created? Explain with example.

Group "C"

[2 × 5 = 10]

Comprehensive Questions:

7. ✓ If you are appointed as an IT Security Officer of your college, how would you reduce the inappropriate internet behaviors and also maintain privacy and security of students/ teachers information?
8. ✓ How database can be protected from internal users? Explain how the roles for users can be specified?

