

Roll No. ....

**23542**

**M. Tech. 1st Semester (Cyber  
Forensics and Information Security)**

**Examination – January, 2016**

**NETWORKS AND INFORMATION SECURITY**

**Paper : MTCF-102**

***Time : Three Hours ]***

***[ Maximum Marks : 100***

*Before answering the questions, candidates should ensure that they have been supplied the correct and complete question paper. No complaint in this regard, will be entertained after examination.*

**Note :** Attempt *five* questions in total selecting *one* question from each Section and Question No. 1 which is *compulsory*. All questions carry equal marks.

1. (a) What are Passive Attacks ? Explain.  $5 \times 4 = 20$   
(b) What is encryption system ? List its uses.  
(c) Explain how VPNs are secure.  
(d) What is the need of proxy server ? Explain.

**SECTION – A**

2. Write notes on : 20
  - (i) Integrity and
  - (ii) Availability

3. What are different kinds or security Risks ? Explain. 20

### SECTION – B

4. (a) What is Bell-LaPadula model ? Explain. 10  
(b) Write short note on Secure Hash and Key management. 10
5. Compare and contrast Secret Key and Public Key Cryptosystems. 20

### SECTION – C

6. (a) What is Real Time Communication Security ? Explain. 10  
(b) What are Viruses ? List any *five* names of viruses and their related threats. 10
7. Explain how electronic payment systems are secure. 20

### SECTION – D

8. What are different authentication mechanisms ? Explain.
9. Write notes on :  $10 \times 2 = 20$   
(a) E-mail Security  
(b) Application Firewall