

GUJARAT TECHNOLOGICAL UNIVERSITY
MCA - SEMESTER- V EXAMINATION – SUMMER 2016

Subject Code: 650002**Date: 06/05/ 2016****Subject Name: Network Security****Time: 10.30 am to 01.00 pm****Total Marks: 70****Instructions:**

1. Attempt all questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.

- Q.1 (a) Do as directed** **07**
1. Active & Passive attack.
 2. Message Confidentiality
 3. Non repudiation
 4. Digital Signature
 5. honey pot
 6. Message Integrity
 7. Non Repudiation
- (b)** **07**
1. Differentiate between Security Threat and Security Attack.
 2. What is meant by the term “Hacking“?
 3. What is a key ring in PGP?
 4. Give one major difference between a stream and a block cipher.
 5. What is Stateful firewall?
 6. Explain Authentication server.
 7. Explain Trojan horse defense.
- Q.2 (a)** Explain giving examples Active Attacks and Passive Attacks. **07**
- (b)** Explain cipher block chaining mode with example. **07**
- OR**
- (b)** Mention and briefly explain any five properties necessary for a hash function to be useful for message authentication. **07**
- Q.3 (a)** Briefly explain any five fields/elements of the format of X.509 Public Key Certificate. **07**
- (b)** Write any four important differences between Kerberos version 4 and 5. **07**
- OR**
- Q.3 (a)** How PGP constructs a secure mail? Write the steps involved in the process. **07**
- (b)** Discuss IP security. Briefly explain its architecture. **07**
- Q.4 (a)** Mention and briefly explain the services available in PGP. **07**
- (b)** Discuss the concept of ESP. **07**
- OR**
- Q.4 (a)** How enveloped data is constructed in SMIME. Write all steps for the same. **07**
- (b)** What are intruders? Briefly explain its category. **07**
- Q.5 (a)** What is intrusion detection? Explain: Rule based Intrusion Detection. **07**
- (b)** Why web security is more important issue today? List at least four reasons for the same. **07**
- OR**
- Q.5 (a)** Draw the schematic diagrams of popular firewall configurations/topologies. **07**
- (b)** Discuss the general guidelines for creating a good password. **07**
