

Seat No.: _____

Enrolment No. _____

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**
