**R09** 

Code No: 56030

## JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY, HYDERABAD B. Tech III Year II Semester Examinations, December-2014/January-2015

NETWORK SECURITY (Common to CSE, IT)

Time: 3 hours

Max. Marks: 75

## Answer any five questions All questions carry equal marks

- 1. Write a brief notes on:
  - a) Security Services
  - b) ARP attacks and Route Table Modification
  - c) Man-in-the-Middle Attacks.
- 2.a) What are the different key distribution Approaches of Message Authentication? Explain.
  - b) What are the differences between Secure Hash Functions and HMAC?
- 3.a) Explain Kerberos version 4 protocol in detail.
- b) Write notes on X.509 Directory Authentication Service.
- 4.a) Explain Authentication Header with a neat diagram.
  - b) Write notes on S/MIME.
  - c) Write notes on Oakley key determination protocol.
- 5.a) What are the challenges that web security has to face when compared with computer and network security?
  - b) Explain TLS in detail.
- 6.a) Write notes on SNMPv3.
  - b) Define Viruses and explain different types of Viruses in detail.
- 7.a) List four techniques used by Firewalls to control access and enforce a security policy.
  - b) Explain Application-level gateway with a neat diagram.
  - c) What is a reference monitor? What properties are required for a reference monitor?
- 8. Write notes on:
  - a) RSA
  - b) Trusted Systems
  - c) Intrusion Detection Systems.