COURSE CODE (CREDITS): 21M11EC213 (3) MAX. MARKS: 35

COURSE NAME: Network Security Protocols

COURSE INSTRUCTORS: Dr. Sunil Datt Sharma MAX. TIME: 2 Hours

Note: All questions are compulsory. Marks are indicated against each question in square brackets.

Q1. Discuss the differences between the transport mode and the tunnel mode of IPSec. (07) Is one mode better than the other? Under what conditions would you use one over the other? Also explain the modes, which are used in IPSec.

Q2. Discuss the differences between IPv4 and IPv6? By the mid-1990s, it was thought (03) that IPv6 was destined to be a replacement of IPv4 in less than 5 years. What happened? Is there a future for IPv6?

Q3. VPN is a private data network that makes use of the public telecommunication (07) infrastructure, such as the Internet, by adding security procedures over the unsecure communication channels. Write and explain the components of a private data network. Also discuss the types of this private data network.

Q4. Write the essential steps, which are useful in Kerberos authentication system. (06)

Q5. Write the four key features of the Remote Authentication Dial-In User Service (06) (RADIUS)

Q6. Explain the purpose of the different headers used in secure hypertext transfer (06) protocol.