

**Department of Computer Engineering**

**LMS Assignment 5**

Q. 1 Explain the ITU-T defined security services. [5 M]

In order to let different devices (computers, routers, cellular phones) to communicate data in a standardized way, communication protocols had been defined.

The ITU-T organization published a large set of protocols. The general architecture of these protocols is defined in recommendation X.200.[10]

The different means (air, cables) and ways (protocols and protocol stacks) to communicate are called a communication network.

Security requirements are applicable to the information sent over the network. The discipline dealing with security over a network is called Network security.[11]

The X.800 Recommendation:[1]

provides a general description of security services and related mechanisms, which may be provided by the Reference Model; and

defines the positions within the Reference Model where the services and mechanisms may be provided.

This Recommendation extends the field of application of Recommendation X.200, to cover secure communications between open systems.

According to X.200 Recommendation, in the so-called OSI Reference model there are 7 layers, each one is generically called N layer. The N+1 entity ask for transmission services to the N entity.[10]