INSTITUTE OF AERONAUTICAL ENGINEERING
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CSE(DATA SCIENCE)

DEFINITION AND TERMINOLOGY

Course Title	**COMPUTER NETWORKS**				
Course Code	AITC06				
Program	B.Tech				
Semester	V	CSE(DS)			
Course Type	Core				
Regulation	UG-20				
Course Structure	Theory			Practical	
	Lecture	Tutorials	Credits	Laboratory	Credits
	3	1	4	-	-
Course Coordinator	Ms. V.Alekhya, Assistant Professor				

COURSE OBJECTIVES:

The students will try to learn:

I	How computer network hardware and software operate
II	Investigate the fundamental issues driving network design
III	The data transmission through protocols across the network in wired and wireless using routing algorithms.

COURSE OUTCOMES:

After successful completion of the course, students should be able to:

CO 1	**Outline** the basic concepts of data communications including the key aspects of networking and their interrelationship, packet, circuit and cell switching as internal and external operations, physical structures, types, models, and internetworking	Understand
CO 2	**Classify** different types of of bit errors and the concept of bit redundancy for error detection and error correction.	Understand
CO 3	**Identify** the suitable design parameters and algorithms for assuring quality of service and internetworking in various internet protocols	Apply
CO 4	**Make use of** transport protocols (TCP,UDP) for measuring the network performance	Apply

CO 5	**Utilize** various protocols (FTP, SMTP,TELNET, EMAIL,WWW) and standards (DNS) used in data communications among network.	Apply
CO 6	**Interpret** various networking models (OSI, TCP/IP) in terms of design parameters and communication modes.	Understand

DEFINITION AND TERMINOLOGY:

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	MODULE I	
	INTRODUCTION	
1	**Define Computer Network?**	CO 1
	A computer network is a group of computer systems and other computing hardware devices that are linked together through communication channels to facilitate communication and resource-sharing among a wide range of users. Networks are commonly categorized based on their characteristics.	
2	**What is a server?**	CO 1
	Also called "file server" and "network server" this term refers to the "nerve center" of your network. It typically needs to be much more high-powered than a regular desktop workstation. The server is home to hardware that is networked (allows more than one person to use it simultaneously). All of our data will typically be stored on this machine.	
3	**Define work station?**	CO 1
	Refers to each person's computer. our front and back office staff computers and the machines in the examination room will be workstations on the network.	
4	**What is the meaning of Hardwired?**	CO 1
	All the workstations in the office plug into a network outlet using physical cabling to transport data to and from the server.	
5	**What is a communication link?**	CO 1
	In telecommunications a link is a communicationchannel that connects two or more devices. The term link iswidely used in computer networking to refer to the communications facilities that connect nodes of a network.	
6	**Define Ethernet?**	CO 1
	Backbone of your network. It consists of the cabling (called "cat 5/ cat 6" cable) and is typically able to transfer data at a rate of 100mb/s (read more about bandwidth).	

7	**Stae Router?** Network's "air traffic controller." It routes all the data on network to where it is supposed to go. It also assigns unique network addresses to all the computers (IP addresses). Routers can also hide the computer and devices that connect to it from the outside world (using Network Address Translation - NAT).	CO 1
8	**State simplex communication?** Communication can take place only in one direction. eg. T.V broadcasting.	CO 1
9	**Memorize Half duplex communication?** Communication can take place in one direction at a time. Suppose node A and B are connected then half-duplex communication means that at a time data can flow from A to B or from B to A but not simultaneously. eg. two persons talking to each other such that when one speaks the other listens and vice versa.	CO 1
10	**Recall Virtual Private Network?** Communications across the Internet are inherently insecure. A virtual private network is a secure connection between two computers (VPN server and VPN client).The connection as a tunnel across the Internet. Only the two computers on the ends of the tunnel can see what is being transported in the tunnel.	CO 1
11	**State full duplex communication?** Communication can take place simultaneously in both directions. eg. A discussion in a group without discipline.	CO 1
12	**Memorize network interface?** In computing, a network interface is a system's (software and/ hardware) interface between two pieces of equipment or protocol layers in a computer network. Network interfaces provide standardized functions such as passing messages, connecting and disconnecting, etc.	CO 1
13	**What is protocol layering?** Protocol layering is a common technique to simplify networking designs by dividing them into functional layers, and assigning protocols to perform each layer's task. Protocol layering produces simple protocols, each with a few well- defined tasks. These protocols can then be assembled into a useful whole. Individual protocols can also be removed or replaced as needed for particular applications. .	CO 1
14	**Define analog signal?** An analog signal is a continuous wave that changes over a time period. An analog signal is represented by a sine wave.	CO 1

15	**What is the meaning of attenuation?** When a signal transmits in a network then the quality of signal degrades as the signal travels longer distances in the wire. This is called attenuation. To improve quality of signal amplifiers are used at regular distances.	CO 1
16	**State noise?** In a communication channel many signals transmit simultaneously, certain random signals are also present in the medium. Due to interference of these signals gets disrupted a bit.	CO 1
17	**What is the meaning of Bandwidth?** Bandwidth simply means how many bits can be transmitted per second in the communication channel. In technical terms it indicates the width of frequency spectrum.	CO 1
18	**What is Distortion?** Change in the shape of signal. This is generally seen in composite signals with different frequencies. Each frequency component has its own propagation speed travelling through a medium. Every component arrives at different time which leads to delay distortion. Therefore, they have different phases at receiver end from what they had at senders end.	CO 1
19	**Recall transmission impairment?** In communication system, analog signals travel through transmission media, which tends to deteriorate the quality of analog signal. This imperfection causes signal impairment. Received signal is not same as the signal that was send.	CO 1
20	**What is a communication link?** In telecommunications a link is a communication channel that connects two or more devices. The term link is widely used in computer networking to refer to the communications facilities that connect nodes of a network.	CO 1

MODULE II		
DATALINK LAYER		
1	**Memorize Section Overhead?** Section Overhead (SOH)A transmission control character used as the first character of a heading of an information message.	CO 2
2	**Define Path Overhead?** Path overhead (POH)technology allows Ethernet cables to carry data and electrical power to networked, IP-enabled devices.	CO 2
3	**What is multiplexing?** In telecommunications and computer networks, multiplexing is a method by which multiple analog or digital signals are combined into one signal over a shared medium. The aim is to share a scarce resource.	CO 2
4	**State time division multiplexing?** Time division multiplexing is a technique used to transmit a signal over a single communication channel by dividing the time frame into slots – one slot for each message signal. Time-division multiplexing is primarily applied to digital signals as well as analog signals, wherein several low speed channels are multiplexed into high-speed channels for transmission. Based on the time, each low-speed channel is allocated to a specific position, where it works in synchronized mode. At both the ends, i.e., the multiplexer and demultiplexer are timely synchronized and simultaneously switched to the next channel.	CO 2
5	**Define SONET layer?** Synchronous Optical Network (SONET) is originally designed to transport circuit mode communications.	CO 2
6	**Define OC signal** Optical Carrier (OC)The Synchronous Optical Network (SONET) includes a set of signal rate multiples for transmitting digital signals on optical fiber.	CO 2
7	**State Synchronous Digital Hierarchy?** Synchronous Digital Hierarchy is originally designed to transport circuit mode communications .	CO 2
8	**Define SPE?** Synchronous Payload Envelope (SPE) The portion of a SONET or SDH frame that carries the user payload data.	CO 2
9	**State VT?** Virtual Tributary (VT) is the company's hardware assistance for processors running virtualization platforms.	CO 2
10	**Memorize ratio controller?** A ratio controller is a special type of feed forward controller where disturbances are measured and their ratio is held at a desired set point by controlling one of the streams.	CO 2

11	**State UPSR?** Unidirectional Path Switching Ring (UPSR).We have discussed the demand for transport networks and have OC levels are also defined corresponding to electrical equivalent in STS.	CO 2
12	**State ANSI?** American National Standards Institute (ANSI) which define the set of transmission formats and transmission rates in the range above 51.840 Mbit/s	CO 2
13	**Define LOS?** Loss Of Signal(LOS)Short for loss of signal, LOS is an indicator on a networking device that shows a signal or connection has been dropped or terminated	CO 2
14	**What is Modulation?** Data is superimposed on a carrier current or wave by means of a process called Modulation.	CO 2
15	**Define AITS?** AITS provide connection-oriented service. It establishes and maintains a logical connection between two NEs over a DCC point-to-point link, providing the means to reliably send and receive data.	CO 2
16	**Define Unacknowledged Information Transfer Service?** UITS provides connection-less service. It transfers data without establishing a logical connection. With the connection-less mode service, there is no guarantee of data delivery or any indication of communication failure.	CO 2
17	**Define Framing** The service provided by the data-link layer is framing. The data-link layer at each node needs to encapsulate the datagram (packet received from the network layer) in a frame before sending it to the next node. The node also needs to decapsulate the datagram from the frame received on the logical channel	CO 2
18	**StateFlow Control?** The sending data-link layer at the end of a link is a producer of frames; the receiving data-link layer at the other end of a link is a consumer. If the rate of produced frames is higher than the rate of consumed frames, frames at the receiving end need to be buffered while waiting to be consumed	CO 2

19	**Define Error Control** Since electromagnetic signals are susceptible to error, a frame is susceptible to error. The error needs first to be detected. After detection, it needs to be either corrected at the receiver node or discarded and retransmitted by the sending node. Since error detection and correction is an issue in every layer (node-to node or host-to-host).	CO 2
20	**State Congestion Control** A link may be congested with frames, which may result in frame loss, most data-link-layer protocols do not directly use a congestion control to alleviate congestion, although some wide-area networks do. In general, congestion control is considered an issue in the network layer or the transport layer because of its end-to-end nature.	CO 2
21	**Define Checksum** A checksum of a message is an arithmetic sum of message code words of a certain word length, for example byte values, and their carry value. The sum is negated by means of ones-complement, and stored or transferred as an extra code word extending the message. On the receiver side, a new checksum may be calculated, from the extended message.	CO 2
22	**Explain about HDLC** High-level Data Link Control (HDLC) is a bit- oriented protocol for communication over point - to-point and multipoint links.	CO 2
23	**Explain about PPP** Today, millions of Internet users who need to connect their home computers to the serverof an Internet service provider use PPP. The majority of these users have a traditional modem; they are connected to the Internet through a telephone line, which provides the services of the physical layer.	CO 2
24	**Explain about ALOHA** ALOHA is a system for coordinating and arbitrating access to a shared communication channel. It was developed in the 1970s at the University of Hawaii. The original system used terrestrial radio broadcasting, but the system has been implemented in satellite communication systems	CO 2
25	**Explain about CSMA** CSMA is a network access method used on shared network topologies such as Ethernet to control access to the network. Devices attached to the network cable listen (carrier sense) before transmitting	CO 2

MODULE III		
NETWORK LAYER		
1	**Define routing algorithm?** The routing algorithm is that part of the network layer software responsible for deciding which output line an incoming packet should be transmitted on. If the network uses datagram's internally, this decision must be made anew for every arriving data packet since the best route may have changed since last time.	CO 3
2	**Define forwarding in router?** Router is having two processes inside it. One of them handles each packet as it arrives, looking up the outgoing line to use for it in the routing tables. This process is forwarding. The other process is responsible for filling in and updating the routing tables.	CO 3
3	**Define Non Adaptive Routing algorithm?** Non adaptive Routing algorithms do not base their routing decisions on any measurements or estimates of the current topology.	CO 3
4	**Define Adaptive Routing algorithm?** Adaptive Routing algorithms change their routing decisions to reflect changes in the topology, ands ometimes changes in the traffic as well.	CO 3
5	**Define Dynamic Routing algorithms?** Dynamic routing algorithms differ in where they get their information (e.g., locally, from adjacent routers, or from all routers), when they change the routes (e.g., when the topology changes or every T seconds as the load changes) and what metric is used for optimization (e.g., distance, number of hops, or estimated transit time).In the following sections, we will discuss a variety of routing algorithms. The algorithms cover delivery models besides sending a packet from a source to a destination. Sometimes the goal is to send the packet to multiple, all, or one of a set of destinations.	CO 3
6	**Define flooding?** Flooding, in which every incoming packet is sent out on every outgoing line except the one it arrived on. Flooding obviously generates vast numbers of duplicate packets, in fact, an infinite number unless some measures are taken to damp the process.	CO 3
7	**Define congestion?** Too many packets present in (a part of) the network causes packet delay and loss that degrades performance. This situation is called congestion.	CO 4

8	**Define Load Shedding?** The network is forced to discard packets that it cannot deliver. The general name for this is load shedding. Good policy for choosing which packets to discard can help to prevent congestion collapse.	CO 3
9	**Define Leaky bucket?** A commonly used descriptor that captures this effect is the leaky bucket or token bucket. A leaky bucket has two parameters that bound the average rate and the instantaneous burst size of traffic.	CO 3
10	**State Path Transmission Unit** TA source does not usually know the path a packet will take through the network to a destination, so it certainly does not know how small packets must be to get there. This packet size is called the Path MTU (Path Maximum Transmission Unit).	CO 3
11	**What is Border Gateway Protocol?** Border Gateway Protocol (BGP) is a routing protocol used to transfer data and information between different host gateways, the Internet or autonomous systems.	CO 3
12	**Define Tunneling?** Tunneling is a protocol that allows for the secure movement of data from one network to another. Tunneling involves allowing private network communications to be sent across a public network.	CO 3
13	**Recall Open Shortest Path First?** Routers connect networks using the Internet Protocol (IP), and OSPF is a router protocol used to find the best path for packets as they pass through a set of connected networks.	CO 3
14	**Memorize Distance Vector Routing Protocol?** Distance Vector Routing Protocol (DVRP) is one of two major routing protocols for communications methods that use data packets sent over Internet Protocol (IP). DVRP requires routing hardware to report the distances of various nodes within a network or IP topology in order to determine the best and most efficient routes for data packets.	CO 4
15	**What is Directed Acyclic Graph?** Directed acyclic graph (DAG) is a graph that is directed and without cycles connecting the other edges.	CO 3

16	**Define congestion and discuss which layer handles the responsibility of congestion?** Too many packets present in (a part of) the network causes packet delay and loss that degrades performance. This situation is called congestion. The network and transport layers share the responsibility for handling congestion. Since congestion occurs within the network, it is the network layer that directly experiences it and must ultimately determine what to do with the excess packets.	CO 4
17	**S**tate Path Transmission Unit? A source does not usually know the path a packet will take through the network to a destination, so it certainly does not know how small packets must be to get there. This packet size is called the Path MTU (Path Maximum Transmission Unit).	CO 4
18	**What is internet control message protocol?** ICMP (Internet Control Message Protocol) is an error-reporting protocol network devices like routers use to generate error messages to the source IP address when network problems prevent delivery of IP packets. ICMP creates and sends messages to the source IP address indicating that a gateway to the Internet that a router, service or host cannot be reached for packet delivery. Any IP network device has the capability to send, receive or process ICMP messages.	CO 3
19	**What is reliability?** Network channels and components may be unreliable, resulting in loss of bits while data transfer. So, an important design issue is to make sure that the information transferred is not distorted.	CO 3
20	**State resource allocation?** Computer networks provide services in the form of network resources to the end users. The main design issue is to allocate and deallocate resources to processes. The allocation/deallocation should occur so that minimal interference among the hosts occurs and there is optimal usage of the resources.	CO 3

MODULE IV		
TRANSPORT LAYER		
1	**What is a Firewall?** Firewall is a network security system that is used to protect computer networks from unauthorized access. It prevents malicious access from outside to the computer network. A firewall can also be built to grant limited access to the outside users.	CO 4
2	**Define Transmission Control Protocol?** Transmission Control Protocol (TCP) is a standard that defines how to establish and maintain a network conversation via which application programs can exchange data. TCP works with the Internet Protocol (IP).	CO 5
3	**State a Fragmentation?** Fragmentation is done by the network layer when the maximum size of datagram is greater than maximum size of data that can be held a frame i.e., its Maximum Transmission Unit (MTU). The network layer divides the datagram received from transport layer into fragments so that data flow is not disrupted.Maximum size of IP datagram =216.	CO 5
4	**Define Message Integrity?** Message Integrity describes the concept of ensuring that data has not been modified in transit. This is typically accomplished with the use of a Hashing algorithm.	CO 4
5	**What is Secure Sockets Layer?** Secure Sockets Layer (SSL) is a networking protocol designed for securing connections between web clients and web servers over an insecure network, such as the internet.	CO 5
6	**Memorize a User Datagram** User Datagram Protocol (UDP) is part of the Internet Protocol suite used by programs running on different computers on a network. UDP is used to send short messages called datagram's but overall, it is an unreliable, connectionless protocol. UDP is officially defined in RFC 768 and was formulated by David P.	CO 5
7	**Define Stream Control Transmission Protocol?** Stream Control Transmission Protocol (SCTP) is a protocol for transmitting multiple streams of data at the same time between two end points that have established a connection in a network.	CO 4

8	**What is a Checksum?** A checksum is an error-detection method in a the transmitter computes a numerical value according to the number of set or unset bits in a message and sends it along with each message frame. At the receiver end, the same checksum function (formula) is applied to the message frame to retrieve the numerical value. If the received checksum value matches the sent value, the transmission is considered to be successful and error-free.	CO 5
9	**Recall Handshake?** Term used to describe the process of one computer establishing a connection with another computer or device. The handshake is often the steps of verifying the connection, the speed, or the authorization of the computer trying to connect to it. An example of handshaking is when a modem connects to another Modem; the tones heard after the dialing is the handshake and is how the computers greeting each other.	CO 4
10	**State a port number?** A port number is a way to identify a specific process to which an Internet or other network message is to be forwarded when it arrives at a server.	CO 5
11	**Define Datagram?** A datagram is a unit of transfer associated with networking.	CO 5
12	**What is Packet Filtering?** Packet filtering is a firewall technique used to control network access by monitoring outgoing and incoming packets and allowing them to pass or halt based on the source and destination Internet Protocol (IP) addresses, protocols and ports. Network layer firewalls define packet filtering rule sets, which provide highly efficient security mechanisms. Packet filtering is also known as static filtering.	CO 4
13	**Define Protocol Data Unit?** A Protocol Data Unit (PDU) is an Open-System Interconnection (OSI) term used in telecommunications that refers to a group of information added or removed by a layer of the OSI model. Each layer in the model uses the PDU to communicate and exchange information, which can only be read by the peer layer on the receiving device and is then handed over to next upper layer after stripping.	CO 5
14	**Recall the use of Gateway?** A gateway is a data communication device that provides a remote network with connectivity to a host network.	CO 4

15	**Define the term Domain Name System?** Domain name system (DNS) is a hierarchical naming system built on a distributed database	CO 5
16	**Define Stream Control Transmission Protocol?** SCTP (Stream Control Transmission Protocol) is a protocol for transmitting multiple streams of data at the same time between two end points that have established a connection in a network. Sometimes referred to as "next generation TCP" (Transmission Control Protocol) - or TCP, SCTP is designed to make it easier to support a telephone connection over the Internet (and specifically to support the telephone system's Signaling System 7 - SS7 - on an Internet connection). A telephone connection requires that signaling information (which controls the connection) be sent along with voice and other data at the same time. SCTP also is intended to make it easier to manage connections over a wireless network and to manage the transmission of multimedia data. SCTP is a standard protocol (RFC 2960) developed by the Internet Engineering Task Force (IETF).	CO 5
17	**What is Dynamic Buffer Management?** Dynamic Buffer Management (DBM) is a tool of the Theory of Constraints, which allows to effectively managing the enterprise reserves by focusing on the actual consumer demand. DBM implementation enables to always have the right product in the right place at the right time.	CO 5
18	**What are the elements of transport protocols?** 1. Transport 2. Addressing 3. Establishing a connection 4. Releasing a connection 5. Flow control and buffering 6. Multiplexing 7. Crash recovery	CO 4
19	**What are the UDP parameters?** 1. Source Port 2. Destination Port 3. Length 4. Checksum	CO 4
20	**What is congestion?** A state occurring in network layer when the message traffic is so heavy that it slows down network response time.	CO 5
21	**Define Throughput** Throughput is the actual rate that information is Transferred	CO 5

22	**What is a port number?** A port number is a way to identify a specific process to which an Internet or other network message is to be forwarded when it arrives at a server	CO 4
23	**Define latency** Latency the delay between the sender and the receiver decoding it, this is mainly a function of the signals travel time, and processing time at any nodes the information traverses	CO 5
24	**Define Bandwidth** Bandwidth commonly measured in bits/second is the maximum rate that information can be transferred .	CO 4
25	**Define Error rate** Error rate the number of corrupted bits expressed as a percentage or fraction of the total sent	CO 5

MODULE V		
APPLICATION LAYER		
1	**State FTP?** File Transfer Protocol (FTP) is a client/server protocol used for transferring files to or exchanging files with a host computer. It may be authenticated with user names and passwords. Anonymous FTP allows users to access files, programs and other data from the Internet without the need for a user ID or password	CO 6
2	**Define SMTP?** Simple Mail Transfer Protocol (SMTP) is the standard protocol for email services on a TCP/IP network. SMTP provides the ability to send and receive email messages.	CO 6
3	**Memorize HTTP?** HTTP (Hypertext Transfer Protocol) is the set of rules for transferring files (text, graphic images, sound, video, and other multimedia files) on the World Wide Web. As soon as a Web user opens their Web browser, the user is indirectly making use of HTTP. HTTP is an application protocol that runs on top of the TCP/IP suite of protocols (the foundation protocols for the Internet).	CO 6
4	**Define Secure Shell?** SSH, also known as Secure Shell or Secure Socket Shell, is a network protocol that gives users, particularly system administrators, a secure way to access a computer over an unsecured network. SSH also refers to the suite of utilities that implement the SSH protocol.	CO 6
5	**State Uniform Resource Locater?** A URL (Uniform Resource Locator) is a unique identifier used to locate a resource on the internet. It is also referred to as a web address. URLs consist of multiple parts – including a protocol and domain name – that tell a web browser how and where to retrieve a resource.	CO 6
6	**Define Network File system (NFS)?** This protocol allows files to be shared by various hosts on the network. Some protocols, such as telnet and FTP, can only be used if the user has some knowledge of the network. .	CO 6
7	**Memorize Network Performance Management?** Network performance management is the collective techniques that enable, manage and ensure optimal performance levels of a computer network.	CO 6

8	**Define Periodic data collection?** Data Collection takes place at specified time intervals. Based on the time interval given, the Scheduler schedules the Data Collection process	CO 6
9	**State Filter?** The filter otherwise called as Poll Filter allows manipulation of PolledData objects before they are added to the database. The manipulations will be some kind of addition, modification or deletion of PolledData objects	CO 6
10	**Define Decoder?** The data collected for the device can be converted into any other format and stored in database. This process of conversion is called Decoding and is taken care of by Data decoder.	CO 6
11	**State Configuration file?** Configuration files are available in XML format. You can modify configuration files before Server startup and see the changes. These are stored under ¡Web NMS Home¿/conf directory These are updated when settings are changed via Client User Interface.	CO 6
12	**List out the API methods?** These are used when you want to configure Performance objects at runtime You are required to get the handle of the API to use it's methods PollAPI is the most importantly used interface to configure Data collection parameters. PollAPI can be accessed through RMI. When RMI is enabled by running the RMI registry, it will be published with the RMI handle / PollAPI on the server.	CO 6
13	**Define TELNET (Terminal Network)?** TELNET is client-server application that allows a user to log onto remote machine and lets the user to access any application program on a remote computer.	CO 6
14	**What is Multipurpose Internet Mail Extensions?** SIt is an extension of SMTP that allows the transfer of multimedia messages	CO 6
15	**Define Generic Domain?** The generic domain defines registered hosts according, to their generic behavior. Each node in the tree defines a domain which is an index to the domain name space database.	CO 6

16	**Define World Wide Web?** WWW is a set of programs, standards and protocols that allow the text, images, animations, sounds and videos to be stored, accessed and linked together in form of web sites.	CO 6
17	**Recall the term Domain Name Service (DNS)?** Also called name service, this application maps IP addresses to the names assigned to network devices. DNS is discussed in detail in this book.	CO 6
18	**State Decoder?** The data collected for the device can be converted into any other format and stored in database. This process of conversion is called Decoding and is taken care of by Data decoder.	CO 6
19	**What are the System Design for Better Performance Rules?** CPU speed is more important than network speed.Reduce packet count to reduce software overhead.Minimize context switches.Minimize copying.You can buy more bandwidth but not lower delay.Avoiding congestion is better than recovering from it.• Avoid timeouts.	CO 6
20	**State Scheduler** This component takes care of scheduling	CO 6
21	**What is Tables clean up?** Specify the periodicity as to how often you want to delete the tables which hold collected data. If table clean up is not done then the number of tables will increase and soon database will be full	CO 6
22	**Define SNMP** Simple Network Management Protocol (SNMP) is a set of protocols for network management and monitoring.	CO 6
23	**Define Ftp** File Transfer Protocol (FTP) is a standard Internet protocol for transmitting files between computers on the Internet	CO 6
24	**Explain Telnet** Telnet is a user command and an underlying TCP/IP protocol for accessing remote computers	CO 6
25	**Define Terminal Network?** Terminal Network is client-server application that allows a user to log onto remote machine and lets the user to access any application program on a remote computer.	CO 6

Course Coordinator: **HOD CSE(DS)**
Ms. V Alekhya, Assistant Professor