SRM VALLIAMMAI ENGINEERING COLLEGE

(An Autonomous Institution)

SRM Nagar, Kattankulathur – 603 203

DEPARTMENT OF INFORMATION TECHNOLOGY
&
DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

QUESTION BANK

V SEMESTER

1904003-COMPUTER NETWORKS

Regulation – 2019

Academic Year 2022 – 2023 (ODD SEMESTER)

Prepared by

Dr.S.Narayanan, Assistant Professor (Sel. G) / IT
Dr. S. Sekar, Assistant Professor (Sel. G) / IT
Mrs. A. Vidhya , Assistant Professor (Sr. G) / CSE
Mr. S. Venkatesh, Assistant Professor (Sr. G) / CSE
Mrs.M.Priyadharshini, Assistant Professor (O. G)/CSE

SRM VALLIAMMAI ENGINEERING COLLEGE

(An Autonomous Institution)

SRM Nagar, Kattankulathur – 603 203.

DEPARTMENT OF INFORMATION TECHNOLOGY

QUESTION BANK

SUBJECT : 1904003-COMPUTER NETWORKS

SEM / YEAR : V Sem / III Year

UNIT I -INTRODUCTION

Networks – Network Types – TCP/IP Protocol suite – OSI Model – Physical Layer: Performance – Transmission media – Switching – Circuit-switched Networks – Packet Switching.

PART – A

Q.No	Questions	BT Level	Competence
1.	List the different network criteria.	BTL 1	Remembering
2.	Define Simplex, Half-Duplex and Full-Duplex.	BTL 1	Remembering
3.	Examine the two types of line configuration.	BTL 4	Analyzing
4.	What is the purpose of dialog controller?	BTL 1	Remembering
5.	Examine the fundamental characteristics of data communication.	BTL 4	Analyzing
6.	Analyze all the parameters used to measure network performance.	BTL 4	Analyzing
7.	Define computer Networks.	BTL 1	Remembering
8.	Can you list the five components of data communication?	BTL 1	Remembering
9.	Generalize LAN, WAN and MAN.	BTL 3	Applying
10.	What is distributed processing?	BTL 2	Understanding
11.	What is the similarity between transport layer and data link layer?	BTL 1	Remembering
12.	In what way you can summarize the purpose of layering.	BTL 2	Understanding
13.	How do guided media differ from unguided media?	BTL 6	Creating
14.	Assume 6 devices are arranged in a mesh topology. How many cables are Needed? How many ports are needed for each device?	BTL 3	Applying
15.	Organize the diagrammatic view of exchange using OSI model.	BTL 3	Applying
16.	Why are protocols needed?	BTL 3	Applying
17.	What are the two approaches to packet switching?	BTL 2	Understanding
18.	List the common approaches for switching.	BTL 2	Understanding
19.	In what way would you analyze circuit switched and packet switched networks?	BTL 5	Evaluating
20.	List out the advantages of star topology.	BTL 2	Understanding
21.	Which layer implements the node to node channel connection in OSI layered architecture?	BTL 4	Analyzing
22.	Can you discriminate bandwidth and latency? Justify	BTL 6	Creating
23.	Interpret about bit rate.	BTL 5	Evaluating
24.	What are the criteria used to evaluate transmission medium?	BTL 5	Evaluating

PART – B

1.	(i). Explain how to build network with OSI and TCP/IP reference mode (6) (ii). Write short notes on: (a). Multiplexing and Demultiplexing (4) (b). Framing. (3)	BTL 1	Remembering
2.	Explain fiber optic communication in detail. (13)	BTL 1	Remembering
3.	Draw the OSI network architecture and explain the functionalities of every layer in detail. (13)	BTL 1	Remembering

4.	Briefly explain the different types of packet switching techniques with suitable networks. Write each of its advantages and disadvantages. (13)	BTL 1	Remembering
5.	Explain in detail about the comparison of packet switching and circuit switching. (13)	BTL 2	Understanding
6.	(i)Explain the types of transmission modes. (7) (ii)What are the different types of networks? Explain in detail. (6)	BTL 2	Understanding
7.	Explain the Shielded twisted pair (STP) and Unshielded twisted pair (UTP). (13)	BTL 4	Analyzing
8.	Explain in detail about TCP/IP protocol suite with neat diagram. (13)	BTL 3	Applying
9.	Discuss in detail about Peer to peer processing with neat diagram. (13)	BTL 5	Evaluating
10	Formulate and discuss the various types of transmission media, highlighting their merits and demerits. (13)	BTL 6	Creating
11.	Discuss in detail about the functions of network layer and transport layers with necessary diagrams. (13)	BTL 5	Evaluating
12.	(i) Explain the various network performance parameters in detail. (7) (ii) Explain the purpose of cladding in an optical fiber. (6)	BTL 3	Applying
13.	What is network topology? Explain the different network topologies. (13)	BTL 2	Understanding
14.	(i) Differentiate between a service port addressing, logical addressing and physical addressing (06) (ii) Name some services provided by application layer (07)	BTL 3	Applying
15.	(i) Analyze the advantages of optical fiber over twisted pair and coaxial cable. (6) (ii) Explain the major component of a packet switch and their functions. (7)	BTL 4	Analyzing
16.	Explain the two approaches of packet switching and circuit switching techniques. (13)	BTL 2	Understanding
17.	(i) Explain in detail about network dependent and network independent layers of OSI reference model. (7) (ii) List out the approaches of switching. (6)	BTL 4	Analyzing
	PART C		
1.	(i) List the requirements in building computer networks. (5) (ii) Estimate your idea on how guided media differ from unguided media? Briefly explain any three methods used for data communication using guided media and two methods used for data communication using unguided media (10)	BTL 6	Creating
2.	Interpret with relevant diagram the functions of physical and data link layer. (15)	BTL 5	Evaluating
3.	Discuss the different types of switching networks and mention its advantages and disadvantages. (15)	BTL 5	Evaluating
4.	Estimate on various classes of transmission medium. (15)	BTL 6	Creating
5.	Interpret the major functions performed by the layers of the ISO – OSI model. (15)	BTL 5	Evaluating

UNIT II – Data Analysis

Introduction – DLC Services – HDLC – PPP – Media Access Control – Wired LANs: Ethernet – Wireless LANs – IEEE 802.11, Bluetooth – Connecting Devices. Hubs, Switches- Routers

PART – A

Q.No	Questions	BT Level	Competence
1.	What do you understand by CSMA protocol?	BTL 1	Remembering
2.	What is CRC?	BTL 2	Understanding
3.	Assess about Nodes and Links	BTL 5	Evaluating
4.	What is HDLC?	BTL 2	Understanding
5.	Outline the services provided by the Data link layer	BTL 2	Understanding

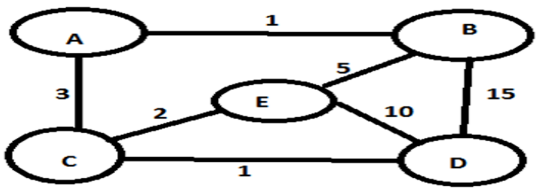
6.	What is flow control and error control	BTL 1	Remembering
7.	Infer why the data link layer is subdivided into two sub layers.	BTL 4	Analyzing
8.	show the types of errors.	BTL 3	Applying
9.	Suppose the following sequence of bits arrives over a link 1101011111010111110010111110110. Show the resulting frame after any stuffed bits have been removed .Indicates any errors that might have been introduced into the frame.	BTL 6	Creating
10.	What are the three different configuration supported by HDLC?	BTL 1	Remembering
11.	Define framing.	BTL 1	Remembering
12.	Relate persistent CSMA with non-persistent CSMA.	BTL 1	Remembering
13.	Compose your view on why fragmentation is recommended in a wireless LAN?	BTL 3	Applying
14.	Examine the term Piggybacking.	BTL 6	Creating
15.	Analyze the role of 802.11	BTL 4	Analyzing
16.	What is meant by bit stuffing? Give an example	BTL 4	Analyzing
17.	Assess the four types of S frames.	BTL 1	Remembering
18.	Examine the access method used by wireless LAN?	BTL 5	Evaluating
19.	Identify the hidden node problem	BTL 4	Analyzing
20.	Interpret about the LCP packet encapsulated in a frame.	BTL 3	Applying
21.	Assess the role of error control.	BTL 5	Evaluating
22.	Show the Ethernet frame format.	BTL 3	Applying
23.	Compare Bit oriented versus Byte oriented protocol.	BTL 2	Understanding
24.	Write about the Hubs and switches.	BTL 2	Understanding

PART – B

1	(i) Explain the physical properties of Ethernet 802.3 with necessary diagram of Ethernet transceiver and adaptor. (6) (ii) Assess and explain the Ethernet frame format. (7)	BTL 5	Evaluating
2	Construct the comparison between different wireless technologies? Enumerate 802.11 protocol stacks in detail. (13)	BTL 6	Creating
3	Analyze the architecture of IEEE 802.11. (13)	BTL 4	Analyzing
4	Illustrate the working of CSMA / CD and CSMA/CA protocol. (13)	BTL 2	Understanding
5	Illustrate and discuss the algorithm for sender site and receiver site stop and wait protocol. (13)	BTL 2	Understanding
6	Explain in detail about the Point to point Protocol (PPP) with neat sketch. (13)	BTL 1	Remembering
7	(i) Analyze the flow and error control in DLC. (7) (ii) Examine the various issues in the Data link layer. (6)	BTL 4	Analyzing
8	What is the need for error detection? Explain with typical examples. Explain methods used for error detection and error correction. (13)	BTL 1	Remembering
9	Analyze on Go-Back-N automatic repeat request design and algorithm. (13)	BTL 4	Analyzing
10	(i). Summarize Cyclic Redundancy Check. Show an example of a CRC code. (7) (ii). Explain and solve CRC division using polynomials. (6)	BTL 2	Understanding
11	Discuss the different ways to address the framing problem. (13)	BTL 2	Understanding
12	lllustrate about the following:	BTL 3	Applying

	i)Transition phase of PPP (7) ii)Multilink PPP (6)		
13	Write short notes on: (i) NAV in CSMA/CA, Bridges. (7) (ii) How does a Bridge come to learn on which port the various hosts reside? Explain with examples. (6)	BTL 1	Remembering
14	Construct the working principle of Switches, Hub and Routers. (13)	BTL 3	Applying
15.	Identify the working principle of Bluetooth and develop a neat sketch to depicts architecture. (13)	BTL 3	Applying
16.	Classify in detail about High-level Data Link Control and the types of frames. (13)	BTL 4	Analyzing
17	lllustrate about the following: (i).Simple parity Check (3) (ii) Two Dimensional Parity Check (3) (iii) Check Sum (7)	BTL 3	Applying
PART C			
1.	Explain the various types of error .Discuss the various types of Detection and correction. (15)	BTL 5	Evaluating
2.	(i) Interpret your understanding of bit oriented protocol namely HDLC. (11) (ii)Assess briefly about CSMA. (4)	BTL 5	Evaluating
3.	Use IEEE 802.3 and IEEE 802.11 to build three differences between wired and wireless LANS. (15)	BTL6	Creating
4.	Assume that, in a Stop-and-Wait ARQ system, the bandwidth of the line is 1 Mbps, and 1 bit takes 20 ms to make a round trip. What is the bandwidth-delay product? If the system data frames are 1000 bits in length, calculate the utilization percentage of the link? (15)	BTL6	Creating
5.	Explain Cyclic Redundancy Check? Suppose we want to transmit the message 11001001 and protect it from errors using the CRC polynomial $x_3 + 1$. Use polynomial long division to determine the message that should be transmitted. (15)	BTL5	Evaluating

UNIT III – NETWORK LAYER			
Network Layer Services – Packet switching – IPV4 Addresses: Classful addressing -classless addressing – Network Layer Protocol: Internet Protocol (IP) – Routing Algorithms: Distance vector routing- Link State routing- Unicast routing algorithm: OSPF– Multicasting Basics – IPV6 Addressing – IPV6 Protocol			
PART – A			
Q.No	**Questions**	**BT Level**	**Competence**
1.	Identify when the forwarding table used.	BTL 3	Applying
2.	What are the metrics used by routing protocols?	BTL 1	Remembering
3.	Choose the class of the following IP address: (a) 110.34.56.45 (b) 212.208.63.23	BTL 6	Creating
4.	How would you design Class A, Class B and Class C of IP?	BTL 1	Remembering
5.	Interpret the address space IPv4.	BTL 2	Understanding
6.	Define routing.	BTL 1	Remembering
7.	Draw the sketch of IPv4 packet header.	BTL 1	Remembering
8.	What is Border Gateway Protocol (BGP).	BTL 1	Remembering

9.	Compare unicast and multicast addressing.	BTL 5	Evaluating
10.	Discover the network address in a class A subnet with the IP address of one of the hosts as 25.34.12.56 and mask 255.255.0.0?	BTL 4	Analyzing
11.	Demonstrate the need for sub netting?	BTL 2	Understanding
12.	Explain packetizing.	BTL 2	Understanding
13.	Analyze on the term Dual stack.	BTL 4	Analyzing
14.	What is the need for fragmentation?	BTL 1	Remembering
15.	Show the need for network layer.	BTL 3	Applying
16.	Analyze how routers differentiate the incoming unicast, multicast and broadcast IP packets.	BTL 4	Analyzing
17.	What is multicast routing?	BTL 2	Understanding
18.	Can you relate the two different classes of routing protocol?	BTL 3	Applying
19.	Differentiate between forwarding table and routing table	BTL 2	Understanding
20.	Discover the OSPF header format	BTL 4	Analyzing
21.	Recommend the benefits of Open Shortest Path First (OSPF) protocol?	BTL 5	Evaluating
22.	Determine the two major mechanisms defined to help transition from IPv4 to IPv6.	BTL 5	Evaluating
23.	Test whether the following IPv6 address notations are correct. (a) ::0F53:6382:AB00:67DB:BB27:7332 (b) 7803:42F2:::88EC:D4BA:B75D:11CD	BTL 6	Creating
24.	Illustrate about all the metrics used by routing protocols.	BTL 3	Applying
	PART – B		
1	Explain in detail the operation of OSPF protocol by considering a suitable network. (13)	BTL 1	Remembering
2	Summarize about the ARP packet and encapsulation of ARP. (13)	BTL 2	Understanding
3	Explain the Distance Vector routing algorithm. Analyze its limitations comparing with other routing algorithms. (13)	BTL 4	Analyzing
4	Describe the multicast routing in detail. (13)	BTL 2	Understanding
5	Explain about IPv6? CompareIPv4 and IPv6. (13)	BTL 2	Understanding
6	Examine the position of IPv4 in TCPIP suit. (13)	BTL 3	Applying
7	(i) What is Internet multicasting? Explain in detail. (8) (ii) Discuss in detail the various aspects of IPV6. (5)	BTL 2	Understanding
8	With an example network scenario explain the mechanism of Routing Information Protocol and specify the routing table contents. (13)	BTL 1	Remembering
9	Develop in detail the datagram approach: Connectionless services. (13)	BTL 3	Applying
10	(i) Analyze the Link State algorithm in detail. (4) (ii) Consider the network shown in Fig 1. Computer the shortest path from C to all other (4) (iii) Nodes using Link-State algorithm. Also update the forwarding table of node C. (5) 	BTL 4	Analyzing

11	(i) Describe in detail about reliable flooding. (6) (ii) Explain Link State Packet in detail. (7)	BTL 6	Creating
12	Discuss in detail about open source shortest path routing with neat diagrams. (13)	BTL 1	Remembering
13	Examine the function of the Border Gateway Protocol used for Inter domain routing in internetwork. (13)	BTL 3	Applying
14	Evaluate and Explain the error reporting messages in ICMP. (13)	BTL 5	Evaluating
15.	Describe in detail the operation of Virtual-Circuit Approach: Connection-Oriented Service. (13)	BTL 4	Analyzing
16.	Compare Classful Addressing and Classless Addressing. (13)	BTL 5	Evaluating
17.	Explain the working of Link -state Routing in detail. (13)	BTL 1	Remembering
PART C			
1.	Find the class of each IP address. Give suitable explanation. i) 227.12.14.87 (3) ii)193.14.56.22 (3) iii) 14.23.120.8 (3) iv) 252.5.15.111 (3) v) 134.11.78.56 (3)	BTL 5	Evaluating
2.	Why subnetting is necessary? With suitable example, develop the concept of subneting in class B network. (15)	BTL 6	Creating
3.	(i) Interpret the function of Routing Information Protocol(RIP). (8) (ii) Draw the IPv6 packet header format. (7)	BTL 5	Evaluating
4.	Assess and explain about the transition from IPv4 to IPv6. (15)	BTL 5	Evaluating
5.	(i) Consider sending a 2400-byte datagram into a link that has an MTU of 700 bytes. Suppose the original datagram is stamped with the identification number 422. How many fragments are generated? What are the values in the various fields in the IP datagram(s) generated related to fragmentation? (8) (ii) Discuss the fundamentals and advantages of Open Shortest Path First protocol. (7)	BTL 6	Creating
UNIT-IV TRANSPORT LAYER			
Introduction – Transport Layer Protocols – Services – Port Numbers – User Datagram Protocol (UDP) –Transmission Control Protocol(TCP) – SCTP.			
PART – A			
Q.No	**Questions**	**BT Level**	**Competence**
1.	Conclude what would you infer from the term RTT?	BTL 5	Evaluating
2.	List the flag used in TCP header.	BTL 1	Remembering
3.	Summarize IP addresses versus port numbers	BTL 2	Understanding
4.	Give the types of data delivery.	BTL 2	Understanding
5.	What is the purpose of TCP push operation?	BTL 1	Remembering
6.	Identify how a well-known port different from an ephemeral port?	BTL 3	Applying
7.	List the different phases used in TCP connection.	BTL 1	Remembering
8.	Differentiate between TCP and UDP.	BTL 2	Understanding
9.	Examine the performance of three way handshaking.	BTL 3	Applying

10.	Identify when can an application make use of UDP?	BTL 3	Applying
11.	Identify the Pseudo header frame format for header	BTL 3	Applying
12.	Classify the services provided by Transport layer protocol.	BTL 4	Analyzing
13.	List the various congestion control techniques in TCP.	BTL 2	Understanding
14.	How does UDP address flow control mechanism?	BTL 2	Understanding
15.	State the purpose of service model.	BTL 1	Remembering
16.	Assess the responsibility of URG and SYN flag.	BTL 5	Evaluating
17.	Analyze on how RTT is computed?	BTL 4	Analyzing
18.	Justify that TCP is a reliable byte stream protocol?	BTL 4	Analyzing
19.	Classify the advantages of connection oriented services over connectionless services.	BTL 4	Analyzing
20.	Suppose a TCP connection is transferring a file of 5000 bytes. The first byte is numbered 10001.What are the sequence numbers for each segment if data are sent in three segments, each carrying 1000 bytes.	BTL 6	Creating
21.	What is a socket address?	BTL 1	Remembering
22.	Formulate what will happen if Congestion Control is not implemented in a Network.	BTL 6	Creating
23.	List the TCP services.	BTL 1	Remembering
24.	Interpret on unicast, multicast and broadcast routing.	BTL 5	Evaluating
	PART – B		
1	(i) Draw a TCP state transition diagram for connection management. (7) (ii) If IP provides connectionless service. How TCP supports connection oriented service? (6)	BTL 2	Understanding
2	(i) Examine the Three Way Handshake protocol to establish the transport level connection. (7) (ii) Analyze the various duties of Transport Layer. (6)	BTL 4	Analyzing
3	With a neat architecture, explain TCP in detail. (13)	BTL 1	Remembering
4	Discuss about i)Reliable vs unreliable. (7) ii)Multiplexing and demultiplexing. (6)	BTL 2	Understanding
5	Define UDP. Discuss the operations of UDP. Explain UDP checksum with one example. (13)	BTL 1	Remembering
6	Discuss in detail the various congestion control mechanisms in TCP. (13)	BTL 2	Understanding
7	Explain adaptive flow control and retransmission techniques used in TCP. (13)	BTL 1	Remembering
8	(i) Analyze how reliable and ordered delivery is achieved through TCP. (7) (ii) Examine why does TCP uses an adaptive transmission and describe its mechanism. (6)	BTL 4	Analyzing
9	Identify and explain the various functionalities of SCTP. (13)	BTL 3	Applying
10	Summarize TCP segments format in detail. (13)	BTL 5	Evaluating
11	Analyze various congestion avoidance techniques in TCP. (13)	BTL 4	Analyzing
12	(i) Explain how TCP manages a byte stream. (7) (ii) List and explain the states involved in TCP. (6)	BTL 1	Remembering
13	(i) Organize three ways of connection termination in TCP using state transition diagram. (8) (ii) Describe in detail about reliable flooding. (5)	BTL 3	Applying

14	Interpret a network that makes use of sliding window protocol and explain detail the protocol used. (13)	BTL 5	Evaluating
15	Write the comparison between of TCP segment and SCTP packet. (13)	BTL 3	Applying
16	(i) Formulate how would you differentiate UDP and TCP? (7) (ii) Will you state or interpret in your own words about flow control in TCP and UDP with an example. (6)	BTL 6	Creating
17	(i) Explain the operation of Go-Back-N protocol. (6) (ii) With a diagram explain about TCP connection management. (7)	BTL 2	Understanding
1	Discuss the adaptive transmission mechanism and propose how it has evolved over time as the internet community has gained more Experience using TCP. (15)	BTL 6	Creating
2	Discuss on (i)Position of TCP,UDP,SCTP in TCP/IP protocol suite (8) (ii)Ports in UDP. (7)	BTL 6	Creating
3.	(i) Can you explain why we need four (or sometimes three) segments for connection termination in TCP? (7) (ii) Assess the justification for having variable field lengths for the fields in the TCP header. (8)	BTL 5	Evaluating
4	Explain the various fields of TCP header and the working of the TCP. Protocol. (15)	BTL 5	Evaluating
5.	Develop with examples the three mechanisms by which congestion control is achieved in TCP. Differentiate these mechanisms. (15)	BTL6	Creating

UNIT V APPLICATION LAYER

WWW and HTTP – FTP – Email –Telnet –SSH – DNS – SNMP

PART – A

Q.No	Questions	BT Level	Competence
1.	Define SMTP.	BTL 1	Remembering
2.	Define Persistent and Non-persistent connections.	BTL 1	Remembering
3.	Mention the types of HTTP messages	BTL 1	Remembering
4.	What is the purpose of FTP?	BTL 1	Remembering
5.	How to visualize the diagrammatic example using DNS?	BTL 2	Understanding
6.	How would you discover MIME types and subtypes?	BTL 1	Remembering
7.	Mention the different levels in domain name space.	BTL 1	Remembering
8.	Examine on the term root server	BTL 4	Analyzing
9.	Outline the need of DNS?	BTL 2	Understanding
10.	Examine the protocol used for e-mail security.	BTL 4	Analyzing
11.	Interpret on telnet	BTL 5	Evaluating
12.	Identify the fourth scenario of electronic mail	BTL 3	Applying
13.	Interpret the use of Hyper Text Transfer Protocol (HTTP).	BTL 2	Understanding
14.	Recommend the groups of HTTP header?	BTL 5	Evaluating
15.	Examine the function of SSH components?	BTL 4	Analyzing

16.	Discover the usage of conditional get in HTTP.	BTL 4	Analyzing
17.	Identify the three basic pieces of MIME with example.	BTL 3	Applying
18.	Differentiate IMAP and POP.	BTL 2	Understanding
19.	Differentiate IMAP and SMTP.	BTL 3	Applying
20.	What is the use of SNMP protocol in a network?	BTL 2	Understanding
21.	How would you express URL?	BTL 3	Applying
22.	Propose a comparison between GET and SET in SNMP	BTL 6	Creating
23.	Draw and construct the scenario of Electronics mail.	BTL 6	Creating
24.	Define FQDN and PQDN	BTL 2	Understanding
	PART-B		
1	(i) Examine how SMTP transfers message from one host to another with suitable illustration. (6) (ii) Assess IMAP with its state transition diagram. (7)	BTL 1	Remembering
2	What is SSH? Explain it briefly. (13)	BTL 1	Remembering
3	Summarize on the services of User Agent. (13)	BTL 1	Remembering
4	Analyze in detail about DNS operation. (13)	BTL 1	Remembering
5	i) Develop in detail about SNMP messages. (7) ii) Organize the role of POP3 in Electronic mail applications. (6)	BTL 2	Understanding
6	Write short notes on : (i) IMAP (7) (ii)MIME (6)	BTL 2	Understanding
7	Identify the frame structure of DNS messages also narrate encapsulation. (13)	BTL 4	Analyzing
8	Explain in detail about HTTP operation. (13)	BTL 3	Applying
9	Assess on the concept of NVT. (13)	BTL 5	Evaluating
10	Hierarchy of name servers. (13)	BTL 6	Creating
11	Examine your understanding on File Transfer Protocol. (13)	BTL 5	Evaluating
12	(i) Summarize the elements of network management and explain the operation of SNMP protocol in detail. (8) (ii) Infer the functions performed by of DNS. Give example. (5)	BTL 3	Applying
13	Describe the message format, message transfer and the underlying protocol involved in the working of the electronic mail. (13)	BTL 2	Understanding
14	(i).Tabulate the various HTTP request operations. (7) (ii)Identify the comparison between SMTP, MIME and IMAP. (6)	BTL 3	Applying
15.	Write in detail about DNS and its frame format. (13)	BTL 4	Analyzing
16.	Assess the importance of Simple Network Management Protocol (SNMP)? (13)	BTL 2	Understanding
17.	Formulate the working of Email in detail. (13)	BTL 4	Analyzing
	PART C		
1.	(i).Elaborate the message transfer using Simple Mail Transfer Protocol. (8) (ii).Interpret the basics of POP3 and IMAP mail access protocols. (7)	BTL 6	Creating
2.	A student attaches a laptop to campus network and request/receives a web page from www.google.com . Compose your view on the sequence of operations carried out with the help of different protocols used in	BTL 5	Evaluating

	application, transport, network and link layers.	(15)		
3.	Assess on HTTP request and response.	(15)	BTL 5	Evaluating
4.	Elaborate on client/server application program TELNET.	(15)	BTL 6	Creating
5.	Interpret the major concepts of WWW and HTTP	(15)	BTL 5	Evaluating