

SRM VALLIAMMAI ENGINEERING COLLEGE (An Autonomous Institution)



SRM Nagar, Kattankulathur – 603 203

DEPARTMENT OF ELECTRONICS AND INSTRUMENTATION ENGINEERING

QUESTION BANK

VI SEMESTER

1904003-COMPUTER NETWORKS

Regulation – 2019

Academic Year 2024 – 2025 (EVEN SEMESTER)

Prepared by M.Shanthi A.P / EIE SRM VALLIAMMAI ENGINEERING COLLEGE



(An Autonomous Institution) SRM Nagar, Kattankulathur – 603 203

DEPARTMENT OF ELECTRONICS AND INSTRUMENTATION ENGINEERING <u>QUESTION BANK</u>

SUBJECT: 1904003-COMPUTER NETWORKS SEM / YEAR : VI Sem / III Year

UNIT I -INTRODUCTION AND PHYSICAL LAYER

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

Switch	PART – A			
Q.No	Questions	BT Level	CO	Competence
1.	List the different network criteria.	BTL 1	CO1	Remember
2.	Define Simplex, Half-Duplex and Full-Duplex.	BTL 1	CO1	Remember
3.	Examine the two types of line configuration.	BTL 2	CO1	Understand
4.	What is the purpose of dialog controller?	BTL 1	CO1	Remember
5.	Illustrate the fundamental characteristics of data communication.	BTL 2	CO1	Understand
6.	Analyze all the parameters used to measure network performance.	BTL 2	CO1	Understand
7.	Define computer Networks.	BTL 1	CO1	Remember
8.	List the five components of data communication.	BTL 1	CO1	Remember
9.	Interpret LAN, WAN and MAN.	BTL 2	CO1	Understand
10.	What is OSI? list the seven layers.	BTL 2	CO1	Understand
11.	What is the similarity between transport layer and data link layer?	BTL 1	CO1	Remember
12.	In what way you can summarize the purpose of layering.	BTL 2	CO1	Understand
13.	How do guided media differ from unguided media?	BTL 2	CO1	Understand
14.	Assume 6 devices are arranged in a mesh topology. How many cables are Needed? How many ports are needed for each device?	BTL 2	CO1	Understand
15.	Organize the diagrammatic view of exchange using OSI model.	BTL 1	CO1	Remember
16.	Why are protocols needed?	BTL 1	CO1	Remember
17.	What are the two approaches to packet switching?	BTL 2	CO1	Understand
18.	Compare and contrast the common approaches for switching.	BTL 2	CO1	Understand
19.	Name the factors that affect the reliability of the network?	BTL 1	CO1	Remember
20.	List out the advantages of star topology.	BTL 2	CO1	Understand
21.	Which layer implements the node to node channel connection in OSI layered architecture?	BTL 1	CO1	Remember
22.	What are the applications of Computer Networks?	BTL 1	CO1	Remember
23.	What is point-point link?	BTL 2	CO1	Understand
24.	What are the criteria used to evaluate transmission medium?	BTL 2	CO1	Understand
	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 3	CO1	Apply
2.	Explain fiber optic communication in detail.(13)	BTL 3	CO1	Apply

3.	Distinguish between point to point links and multi point links. Give relevant diagrams. (13)	BTL 4	CO1	Analyze
4.	Briefly explain the different types of packet switching techniques with suitable networks. Write each of its advantages and disadvantages. (13)	BTL 4	CO1	Analyze
5.	Explain in detail about the comparison of packet switching and circuit switching. (13)	BTL 3	CO1	Apply
6.	(i)Explain the types of transmission modes. (7)(ii)What are the different types of networks? Explain in detail.(6)	BTL 3	CO1	Apply
7.	Explain the Shielded twisted pair (STP) and Unshielded twisted pair (UTP). (13)	BTL 4	CO1	Analyze
8.	Explain in detail about TCP/IP protocol suite with neat diagram.(13)	BTL 3	CO1	Apply
9.	Discuss in detail about Peer to peer processing with neat diagram.(13)	BTL 4	CO1	Analyze
10	Explain the various types of transmission media, highlighting their merits and demerits.(13)	BTL 4	CO1	Analyze
11.	Discuss in detail about the functions of network layer and transport layers with necessary diagrams. (13)	BTL 4	CO1	Analyze
12.	(i) Explain the various network performance parameters in detail. (7)(ii) Explain the purpose of cladding in an optical fiber. (6)	BTL 3	CO1	Apply
13.	What is network topology? Explain the different network topologies. (13)	BTL 4	CO1	Analyze
14.	 (i) Differentiate between a service port addressing, logical addressing and physical addressing. (6) (ii) Name the services provided by application layer and explain. 	BTL 3	CO1	Apply
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	CO1	Analyze
16.	Explain the two approaches of packet switching and circuit switching techniques. (13)	BTL 4	CO1	Analyze
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	CO1	Analyze
	PART C			
1.	Briefly explain any two methods used for data communication using guided media and unguided media. (15)	BTL 5	CO1	Evaluate
2.	Interpret with relevant diagram the functions of physical and data link layer.(15)	BTL 5	CO1	Evaluate
3.	Discuss the different types of switching networks and mention its advantages and disadvantages. (15)	BTL 5	CO1	Evaluate
4.	Estimate on various classes of transmission medium. (15)	BTL 6	CO1	Create
5.	Interpret the major functions performed by the layers of the ISO – OSI model. (15)	BTL 5	CO1	Evaluate

UNIT II – DATA-LINK LAYER & MEDIA ACCESS

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	CO	Competence		
1.	What do you understand by CSMA protocol?	BTL 1	CO2	Remember		
2.	What is CRC?	BTL 1	CO2	Remember		
3.	Assess about Nodes and Links	BTL 2	CO2	Understand		
4.	What is HDLC?	BTL 1	CO2	Remember		
5.	Outline the services provided by the Data link layer	BTL 2	CO2	Understand		
6.	What is flow control and error control	BTL 2	CO2	Understand		

Suppose the following sequence of bits arrives over a link 101011111001111110010111110010. Show the resulting frame after any stuffed bits have been removed. Indicates any errors that might have been introduced into the frame.CO2 Understa10.What are the three different configuration supported by HDLC?BTL 2CO2Understa11.Define framing.BTL 1CO2Rememb12.Relate persistent CSMA with non-persistent CSMA.BTL 2CO2Understa13.Compose your view on why fragmentation is recommended in a wireless LAN?BTL 2CO2Understa14.Examine exponential back off.BTL 2CO2Understa15.Analyze the role of 802.11BTL 1CO2Rememb16.What is meant by bit suffing? Give an exampleBTL 2CO2Understa17.Assess the four types of S frames.BTL 2CO2Understa18.Examine the access method used by wireless LAN?BTL 2CO2Understa19.What is redundancyBTL 1CO2Rememb20.Interpret the different states of the bluetooth devices.BTL 2CO2Understa21.Assess the role of error control.BTL 2CO2Understa23.Give the usage of 1, S. U frames.BTL 2CO2Understa24.Write about the Hubs and switches.BTL 2CO2Analyze25.Show the Ethernet frame format.BTL 3CO2Apply24.Construct the comparison between different wireless technologies?	7.	Infer why the data link layer is subdivided into two sub layers.	BTL 1	CO2	Remember
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1.Explain the CSMA/CD algorithms of Ethernet. (13)BTL 3CO2Apply2.Construct the comparison between different wireless technologies? Enumerate 802.11 protocol stacks in detail.(13)BTL 4CO2Analyzz3.Analyze the architecture of IEEE 802.11.(13)BTL 4CO2Analyzz4.Illustrate the working of CSMA / CD and CSMA/CA protocol.(13)BTL 3CO2Apply5.Illustrate and discuss the algorithm for sender site and receiver site stop and wait protocol. (13)BTL 3CO2Apply6.Explain in detail about the Point to point Protocol (PPP) with neat sketch. (13)BTL 4CO2Analyzz7.(i) Analyze the flow and error control in DLC. (7) (ii) Examine the various issues in the Data link layer. (6)BTL 4CO2Analyzz8.Discuss about the evolution of Ethernet and explain the frame format. (13)BTL 4CO2Analyzz9.Explain Go-Back-N automatic repeat request design and algorithm.(13)BTL 4CO2Evalua10.code. (7) (ii). Explain and solve CRC division using polynomials. (6)BTL 3CO2Apply11.Describe in detail about sliding window protocol using Go back N. (13)BTL 4CO2Analyzz12.Illustrate about the following:BTL 3CO2Analyzz	24.	Write about the Hubs and switches.	BTL 2	CO2	Understand
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11. Describe in detail about sliding window protocol using Go back N. (13) CO2 12 Illustrate about the following: BTL 3 CO2	10.	code. (7)	BTL 3	CO2	Apply
12 Illustrate about the following: BTL 3 CO2 Apply	11.		BTL 4		Analyze
i) Italisition phase of III (7)	12.	Illustrate about the following: i)Transition phase of PPP (7)			•

	ii)Multilink PPP (6)			
13	Write short notes on: (i) NAV in CSMA/CA (7) (ii) Flow control mechanism (6)	BTL 3	CO2	Apply
14	Explain the working principle of Switches, Hub and Routers. (13)	BTL 4	CO2	Analyze
15.	Show the working principle of Bluetooth and develop a neat sketch to depict architecture. (13)	BTL 3	CO2	Apply
16.	Classify in detail about High-level Data Link Control and the types of frames.(13)	BTL 4	CO2	Analyze
17	Illustrate about the following: (i) Simple and Two Dimensional Parity Check (6) (ii) Check Sum (7)	BTL 3	CO2	Apply
	PART C			
1.	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)	BTL 5	CO2	Evaluate
2.	Interpret your understanding of bit oriented protocol namely HDLC. (15)	BTL 5	CO2	Evaluate
3.	Give the different standards of IEEE 802.3 with their major advantages and disadvantages. (15)	BTL6	CO2	Create
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 % of the link? (15)	BTL6	CO2	Create
5.	Explain the hidden terminal and exposed terminal problems in wireless LAN and how MACA protocol handle these problems. (15)	BTL5	CO2	Evaluate

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	CO	Competence
1.	Write the BGP Message types.	BTL 1	CO3	Remember
2.	What are the metrics used by routing protocols?	BTL 1	CO3	Remember
3.	Choose the class of the following IP address: (a) 110.34.56.45 (b) 212.208.63.23	BTL 2	CO3	Understand
4.	How would you design Class A, Class B and Class C of IP?	BTL 1	CO3	Remember
5.	Interpret the address space IPv4.	BTL 2	CO3	Understand
6.	Define routing.	BTL 2	CO3	Understand
7.	Draw the sketch of IPv4 packet header.	BTL 1	CO3	Remember

9. Compare unicast and multicast addressing. BTL 2 CO3 Understand 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 2 CO3 Understand 11. Demonstrate the need for sub netting? BTL 1 CO3 Inderstand 12. Explain packetizing. BTL 2 CO3 Understand 13. How can the routing be classified? BTL 2 CO3 Understand 14. What is the need for fragmentation? BTL 2 CO3 Understand 15. Show the need for regmentation? BTL 2 CO3 Understand 16. Analyze how routers differentiate the incoming unicast, multicast and BTL 1 CO3 Remember 16. Analyze how routers different classes of routing protocol? BTL 2 CO3 Understand 19. What are different types of multicast routing? BTL 1 CO3 Remember 20. What is meant by hop count? BTL 2 CO3 Understand 21. Protocol? BTL 1 CO3 Remember 22. Determine the two major mechanisms defined to	8.	What is Border Gateway Protocol (BGP).	BTL 1	CO3	Remember
Image: 10.Discover the network address in a class A subnet with the IP address of one of the hosts as $2.3.4, 12.56$ and mask $252.55.0.0?$ BTT. 1CO3Remember11.Demonstrate the need for sub netring?BTL 1CO3IUnderstand12.Explain packetizing.BTL 2CO3Understand13.How can the routing be classified?BTL 2CO3Understand14.What is the need for fragmentation?BTL 1CO3Remember15.Show the need for network layer.BTL 1CO3Remember16.Analyze how routers differentiate the incoming unicast, multicast and broadcast IP packets.BTL 2CO3Understand17.What is multicast routing?BTL 2CO3UnderstandUnderstand18.Can you relate the two different classes of routing protocol?BTL 2CO3Remember20.What are different types of multicast routing?BTL 1CO3Remember21.protocol?BTL 1CO3Remember22.Determine the two major mechanisms defined to help transition from IPv4 to IPv6.BTL 2CO3Understand23.(a)::::::::::::::::::::::::::::::::::::	9.	Compare unicast and multicast addressing.	BTL 2		Understand
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	8	With an example network scenario explain the mechanism of Routing	BTL 3	CO3	Apply
	9	Develop in detail the datagram approach: Connectionless services.(13)	BTL 5	CO3	Evaluate

	 (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) 		CO3	
10	(iii)Nodes using Link-State algorithm. Also update the forwarding table of node C. (5)	BTL 4		Analyze

11.	(i) Describe in detail about reliable flooding. (6)(ii) Explain Link State Packet in detail.(7)	BTL 3	CO3	Apply
12.	Discuss in detail about open source shortest path routing with neat diagrams. (13)	BTL 3	CO3	Apply
13.	Examine the function of the Border Gateway Protocol used for inter domain routing in internetwork. (13)	BTL 3	CO3	Apply
14.	Evaluate and Explain the error reporting messages in ICMP. (13)	BTL 5	CO3	Evaluate
15.	Describe in detail the operation of Virtual-Circuit Approach.(13)	BTL 4	CO3	Analyze
16.	Compare Classful Addressing and Classless Addressing. (13)	BTL 5	CO3	Evaluate
17.	Explain the working of Link -state Routing in detail. (13)	BTL 3	CO3	Apply
	PART C			

		Find the class of each IP address. Give suitable explanation. i)227.12.14.87 (3)		CO3	
	1	ii)193.14.56.22 (3)			
	1.	iii) 14.23.120.8 (3)	BTL 5		Evaluate
		iv) 252.5.15.111 (3)	DILJ		Lvaluate
		v) 134.11.78.56 (3)			
	2.	Why subnetting is necessary? With suitable example, develop the concept of subneting in class B network. (15)	BTL 6	CO3	Create
-					
	3.	(i) Interpret the function of Routing Information Protocol(RIP). (8)(ii) Draw the IPv6 packet header format. (7)	BTL 5	CO3	Evaluate
	4.	Assess and explain about the transition from IPv4 to IPv6. (15)	BTL 5	CO3	Evaluate
	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? (7) (ii) Discuss the fundamentals and advantages of Open Shortest Path First protocol. (8) 	BTL 6	CO3	Create
Γ	UNIT-IV TRANSPORT LAVER				

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	CO	Competence
1.	Conclude what would you infer from the term RTT?	BTL 1		Remember
			CO4	
2.	List the flag used in TCP header.	BTL 1	CO4	Remember
3.	Summarize IP addresses versus port numbers	BTL 2		Understand
4.	Give the types of data delivery.	BTL 1	CO4	Remember
4.	Give the types of data derivery.	DILI	CO4	Kemember
5.	What is the purpose of TCP push operation?	BTL 2	CO4	Understand
6.	Identify how a well-known port different from an ephemeral port?	BTL 2	CO4	Understand
7.	List the different phases used in TCP connection.	BTL 1	CO4	Remember
8.	Differentiate between TCP and UDP.	BTL 1		Remember
			CO4	
9.	Examine the performance of three-way handshaking.	BTL 2	CO4	Understand
10.	Identify when can an application make use of UDP?	BTL 2	04	Understand
			CO4	
11.	Identify the Pseudo header frame format for header	BTL 1	CO4	Remember
12.	Classify the services provided by Transport layer protocol.	BTL 2		Understand
			CO4	
13.	List the various congestion control techniques in TCP.	BTL 2	CO4	Understand
14.	How does UDP address flow control mechanism?	BTL 2		Understand
15.	State the purpose of service model.	BTL 1	CO4	Remember
15.	state the purpose of service model.	DILI	CO4	Kemember
16.	Assess the responsibility of URG and SYN flag.	BTL 1	CO4	Remember
17.	Analyze on how RTT is computed?	BTL 2	CO4	Understand
17.		DIL 2	CO4	Chucistanu
18.	Justify that TCP is a reliable byte stream protocol?	BTL 2	004	Understand
	Classify the advantages of connection oriented services over	BTL 1	CO4	Remember
19.	connectionless services.	DILI	CO4	Kemember
20.	Why TCP services are called Stream delivery services?	BTL 2		Understand
			CO4	
21.	What is a socket address?	BTL 1	CO4	Remember
	Formulate what will happen if Congestion Control is not	BTL 1	001	Remember
22.	implemented in a Network.		CO4	
23.	List the TCP services.	BTL 2	~~ (Understand
24.	Interpret on unicast, multicast and broadcast routing.	BTL 2	CO4	Understand
24.	interpret on uncast, muticast and broadcast routing.	DIL 2	CO4	Unuerstanu
	PART – B	·		- ·
	(i) Draw a TCP state transition diagram for connection management.			
1	(7)	BTL 3	CO4	Apply
	(ii) If IP provides connectionless service. How TCP supports			· · · · · · · · · · · · · · · · · · ·
	connection oriented service? (6)			

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	CO4	Analyze
3	With a neat architecture, explain TCP in detail. (13)	BTL 4	CO4	Analyze
4	Discuss about i)Reliablevsunreliable(7) ii)Multiplexing and demultiplexing (6)	BTL 3	CO4	Apply
5	Define UDP. Discuss the operations of UDP. Explain UDP checksum with one example. (13)	BTL 5	CO4	Evaluate
6	Discuss in detail the various congestion control mechanisms in TCP. (13)	BTL 4	CO4	Analyze
7	Explain adaptive flow control and retransmission techniques used in TCP. (13)	BTL 3	CO4	Apply
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	CO4	Analyze
9	Identify and explain the various functionalities of SCTP. (13)	BTL 3	CO4	Apply
10	Summarize TCP segments format in detail. (13)	BTL 5	CO4	Evaluate
11	Analyze various congestion avoidance techniques in TCP. (13)	BTL 4	CO4	Analyze
12	(i) Explain how TCP manages a byte stream. (7)(ii) List and explain the states involved in TCP. (6)	BTL 4	CO4	Analyze
13	 (i) Organize three ways of connection termination in TCP using state transition diagram. (7) (ii)Describe in detail about reliable flooding. (6) 	BTL 3	CO4	Apply
14	Interpret a network that makes use of sliding window protocol and explain in detail the protocol used. (13)	BTL 5	CO4	Evaluate
15	Write the comparison between of TCP segment and SCTP packet. (13)	BTL 3	CO4	Apply
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	CO4	Create
17	(i) Explain the operation of Go-Back-N protocol. (6)(ii) With a diagram explain about TCP connection management. (7)	BTL 4	CO4	Analyze
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)		CO4	Create
2	Discuss on (i)Position of TCP, UDP, SCTP in TCP/IP protocol suite (8) (ii)Ports in UDP (7)	BTL 6	CO4	Create
3.	 (i) Can you explain why we need four (or sometimes three) segments for connection termination in TCP? (8) (ii) Assess the justification for having variable field lengths for the fields in the TCP header. (7) 	BTL 5	CO4	Evaluate
4	Explain the various fields of TCP header and the working of the TCP. Protocol. (15)	BTL 5	CO4	Evaluate
5.	Develop with examples the three mechanisms by which congestion control is achieved in TCP. Differentiate these mechanisms. (15)	BTL6	CO4	Create

UNIT V APPLICATION LAYER

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

	$\mathbf{PART} - \mathbf{A}$			
Q.No	Questions	BT Level	СО	Competenc
1.	Define SMTP.	BTL 1	CO5	Remember
2.	Define Persistent and Non-persistent connections.	BTL 1	CO5	Remember
3.	Mention the types of HTTP messages	BTL 2	CO5	Understand
4.	What is the purpose of FTP?	BTL 1	CO5	Remember
5.	How to visualize the diagrammatic example using DNS?	BTL 2	CO5	Understand
6.	How would you discover MIME types and subtypes?	BTL 2	CO5	Understand
7.	Mention the different levels in domain name space.	BTL 1	CO5	Remember
8.	Examine on the term root server	BTL 1	CO5	Remember
9.	Outline the need of DNS?	BTL 2	CO5	Understand
10.	Examine the protocol used for e-mail security.	BTL 2	CO5	Understand
11.	Interpret on telnet	BTL 1	CO5	Remember
12.	Identify the fourth scenario of electronic mail	BTL 2	CO5	Understand
13.	Interpret the use of Hyper Text Transfer Protocol (HTTP).	BTL 2	CO5	Understand
14.	Recommend the groups of HTTP header?	BTL 2	CO5	Understand
15.	How does MIME enhance SMTP?	BTL 1	CO5	Remember
16.	Discover the usage of conditional get in HTTP.	BTL 1	CO5	Remember
17.	Identify the three basic pieces of MIME with example.	BTL 2	CO5	Understand
18.	Differentiate IMAP and POP.	BTL 2	CO5	Understand
19.	Differentiate IMAP and SMTP.	BTL 1	CO5	Remember
20.	What is the use of SNMP protocol in a network?	BTL 2	CO5	Understand
21.	How would you express URL?	BTL 1	CO5	Remember
22.	Propose a comparison between GET and SET in SNMP	BTL 1	CO5	Remember
23.	Draw and construct the scenario of Electronics mail.	BTL 2	CO5	Understand
24.	Differentiate FQDN and PQDN	BTL 2	CO5	Understand
	PART-B		<u> </u>	
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 4	CO5	Analyze
2	What is SSH? Explain it briefly. (13)	BTL 3	CO5	Apply
3	Summarize on the services of User Agent. (13)	BTL 5	CO5	Evaluate
4	Analyze in detail about DNS operation. (13)	BTL 4	CO5	Analyze
		1	GO	

CO5

Apply

BTL 3

5 (i) Develop in detail about SNMP messages. (7) (ii) Organize the role of POP3 in Electronic mail applications. (6)

Write short notes on: COS Analyze 6 (i) IMAP (7) BTL 4 COS Analyze 7 Identify the frame structure of DNS messages also narrate BTL 4 COS Analyze 8 Explain in detail about HTTP operation. (13) BTL 3 COS Apply 9 Assess on the concept of NVT. (13) BTL 5 COS Evaluate 10 Hierarchy of name servers. (13) BTL 5 COS Evaluate 11 Examine your understanding on File Transfer Protocol (13). BTL 5 COS Evaluate 12 (i) Summarize the elements of network management and explain the operation of SNMP protocol in detail. (7) BTL 3 COS Apply 13 protocol involved in the working of the electronic mail. BTL 3 COS Apply 14 (i).Tabulate the various HTTP request operations. (7) BTL 4 COS Analyze 15. Write in detail about DNS and its frame format. (13) BTL 4 COS Analyze 16. Assess the importance of Simple Network Management Protocol (SNMP)? (13) BTL 4 COS Analyze 17. Formulate the working of Email in detail (13).			<u>г г</u>	005	
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