NARSIMHA REDDY ENGINEERING COLLEGE
UGC AUTONOMOUS INSTITUTION
Maisammaguda (V), Kompally - 500100, Secunderabad, Telangana State, India

UGC - Autonomous Institute
Accredited by NBA & NAAC with 'A' Grade
Approved by AICTE
Permanently affiliated to JNTUH

School of Computer Science

Unit wise Question Bank

UNIT-1

S.No	Questions	BT	CO	PO
	Part – A (Short Answer Questions)			
1	List the difference between logical, physical and port address.	L1	CO1	PO1
2	Compare and contrast LAN. MAN and WAN.	L4	CO1	PO1
3	List out different kinds of addresses that are employed in TCP/IPmodel.	L1	CO1	PO2
4	What are the advantages of twisted pair over two-wire line.	L1	CO1	PO2
5	List two advantages and disadvantages of having international standards for network, Protocols?	L1	CO1	PO1
6	What is the advantage of layered architecture in networks	L1	CO1	PO1
7	Write the applications of Infrared Waves.	L1	CO1	PO1
8	What is encapsulation and decapsulation.	L1	CO1	PO1
9	Explain the protocols used at network layer in TCP/IP protocol	L1	CO1	PO1
10	State three difference between OSI and TCP/IP model	L3	CO1	PO2
	Part – B (Long Answer Questions)			
11	a) Write a short note on ARPANET.	L1	CO1	PO1
	b) Explain the software layers of OSI Model.			
12	a) Explain different types of Networks.	L1	CO1	PO1
	b) Explain about different topologies.	L1	CO1	PO1
13	a) Explain about wireless transmission.	L1	CO1	PO1
	b) Explain about TCP/IP reference Model.	L1	CO1	PO2
14	a) Explain the difference between TCP/IP and OSI Model.	L1	CO1	PO1
	b) Discuss about Internet standards.	L2	CO1	PO1
15	a) Explain about various transmission media in physical layer with aneat sketch.	L3	CO1	PO2
	b) Write about twisted pair cable and coaxial cable.	L1	CO1	PO2
16	a) Explain the advantages of computer networks.	L1	CO1	PO1
	b) Explain the hardware layers in OSI layers.	L1	CO1	PO1

UNIT–II :

S.No		Questions	BT	CO	PO
		Part – A (Short Answer Questions)			
1		Data link protocols almost always put the CRC in a trailer, ratherthan in a header. Why?	L4	CO2	PO2
2		Compare and contrast flow control and error control.	L3	CO2	PO2
3		Compare and contrast error detection codes and error correctioncodes	L3	CO2	PO2
4		What is slotted ALOHA? Mention its advantages.	L1	CO2	PO1
5		What is CRC Checker?	L1	CO2	PO1
6		What is the functions of LLC?	L1	CO2	PO1
7		What is ARQ and explain its importance	L1	CO2	PO1
8		Explain the importance of sequence number in Stop and WaitARQ	L1	CO2	PO2
9		Explain is checksum?	L1	CO2	PO1
10		Explain virtual circuit networks	L1	CO2	PO1
		Part – B (Long Answer Questions)			
11	a)	What is framing? Explain various framing technologies of datalink layer.	L1	CO2	PO1
	b)	Explain about Error detection and Error Correction	L1	CO2	PO1
12	a)	Explain stop and wait protocol for noisy channel	L1	CO2	PO1
	b)	Compare and contrast pure ALOHA and slotted ALOHA channel allocation methods.	L2	CO2	PO2
13	a)	Explain CSMA/CD and CSMA/CA in detail	L1	CO2	PO1
	b)	Mention the types of errors and explain each type	L1	CO2	PO1
14	a)	Name the protocols used for CSMA	L1	CO2	PO1
	b)	Explain Go-Back-N with a neat sketch	L1	CO2	PO1
15	a)	Explain CRC Error detection method with an example	L1	CO2	PO1
	b)	Explain Hamming Code in Error Correction	L1	CO2	PO1
16	a)	What are the responsibilities of data link layer	L1	CO2	PO1
	b)	Briefly discuss about data link layer design issues	L3	CO2	PO1

UNIT–III

S.No		Questions	BT	CO	PO
Part – A (Short Answer Questions)					
1		What is the responsibilities of network layer	L1	CO3	PO1
2		What are the metrics used by routing protocols	L1	CO3	PO1
3		Explain Logical Addressing.	L1	CO3	PO1
4		How congestion avoidance is different from congestion control.	L2	CO3	PO2
5		List out the characteristics of QoS?	L1	CO3	PO1
6		Explain the types of congestion control Algorithms	L1	CO3	PO1
7		Explain sub-netting	L1	CO3	PO1
8		Explain IP addressing method.	L1	CO3	PO1
9		Explain Flooding	L1	CO3	PO1
10		What is internerworking	L1	CO3	PO1
Part – B (Long Answer Questions)					
11	a)	Explain design issues of Network Layer	L1	CO3	PO1
	b)	Explain Routing in Network Layer	L1	CO3	PO1

12	a)	Explain different types of routing algorithms.	L1	CO3	PO1
	b)	Explain the three differences between Connection Oriented andConnectionless service e.	L3	CO3	PO2
13	a)	Explain store and forward packet switching.	L1	CO3	PO1
	b)	Define congestion. Write congestion control algorithms.	L1	CO3	PO1
14	a)	Explain about hierarchical routing algorithms.	L1	CO3	PO1
	b)	Difference between Broadcasting and Multi casting	L3	CO3	PO1
15	a)	Explain about QoS in Network Layer.	L1	CO3	PO2
	b)	Discuss about concept of leaky bucket algorithm?	L3	CO3	PO1
16	a)	Explain token bucket algorithm with neat diagram	L1	CO3	PO1
	b)	Explain distance vector routing in detail.	L1	CO3	PO1

UNIT–IV :

S.No	Questions	BT	CO	PO
	Part – A (Short Answer Questions)			
1	Explain UDP.	L1	CO4	PO1
2	Explain TCP.	L1	CO4	PO1
3	Explain the duties of transport layer.	L1	CO4	PO1
4	What are the elements in transport protocols	L1	CO4	PO2
5	Explain about Congestion Avoidance	L1	CO4	PO1
6	Explain about connection management	L1	CO4	PO1
7	What is the difference between network layer delivery and thetransport layer delivery?	L3	CO4	PO2

8	What is meant by segment?	L1	CO4	PO2
9	The transport layer creates the connection between source and destination. What are the three events involved in the connection?	L3	CO4	PO1
10	What are the four aspects related to the reliable delivery of data?	L1	CO4	PO1

Part – B

(Long Answer Questions)

11	a)	Explain the duties of transport layer.	L1	CO4	PO1
	b)	Write short notes on performance issues of transport layer		CO4	PO2
12	a)	Show the different approaches in Packet Switching. Explain themin detail.	L3	CO4	PO2
	b)	Explain in detail about the process-to-process delivery using UDP and its uses.	L1	CO4	PO2
13	a)	Enumerate the mechanism of three-way handshake protocol for TCP	L2	CO4	PO2
	b)	Describe about a) TCP connection management. b) Avoidanceof congestion in TCP	L3	CO4	PO1
14	a)	Explain in detailed about the Transport Layer.	L1	CO4	PO1
	b)	Explain the function of TCP/IP protocol.	L1	CO4	PO1
15	a)	Explain about elements of transport protocols	L1	CO4	PO1
	b)	Briefly explain the internet transport protocols	L3	CO4	PO1
16	a)	Write short notes on User Datagram Protocol (UDP).	L1	CO4	PO1
	b)	Explain the operation of TCP with neat sketch.	L1	CO4	PO1

UNIT–V :

S.No	Questions	BT	CO	PO
	Part – A (Short Answer Questions)			
1	Explain the functions of SMTP	L1	CO5	PO1

2	Write short notes on FTP.	L1	CO5	PO1
3	Explain about HTTP.	L1	CO5	PO1
4	What are the two main categories of DNS messages?	L2	CO5	PO1
5	What are the functions of e-mail.		CO5	PO1
6	Explain the WWW in detail.	L1	CO5	PO1
7	What is the purpose of Domain Name System?	L2	CO5	PO1
8	Discuss the three main division of the domain name space.	L2	CO5	PO1
9	Why is an application such as POP needed for electronic messaging?	L4	CO5	PO1
10	Write down the three types of WWW documents.	L1	CO5	PO1

		Part – B (Long Answer Questions)			
11	a)	Explain how security is provided in interact operations in detail	L1	CO5	PO2
	b)	Explain the working of Electronic mail. How SMTP used in Email applications	L1	CO5	PO1
12	a)	List and discuss the types of DNS records.	L1	CO5	PO1
	b)	Discuss in detail about world wide web	L2	CO5	PO1
13	a)	Discuss Application layer in details	L2	CO5	PO1
	b)	Explain in detail about function and structure of e-mail protocol.	L1	CO5	PO2
14	a)	Discuss the File transfer Protocol (FTP)with a neat diagram.	L1	CO5	PO2
	b)	Explain briefly simple network management protocol	L3	CO5	PO1
15	a)	Discuss the features of HTTP and also discuss how HTTP works.	L2	CO5	PO2
	b)	Explain about Application layer and its services in detail?	L1	CO5	PO1
16	a)	Describe the role of a DNS on a computer network with referenceto its components.	L3	CO5	PO1
	b)	Write briefly about World wide web	L2	CO5	PO1

Blooms Taxonomy Level (BT) (L1 – Remembering; L2 – Understanding; L3 – Applying;L4 – Analyzing; L5 – Evaluating; L6 – Creating)

Course Outcomes (CO)

Program Outcomes (PO)