COMPUTER NETWORKS (23CY404)

Unit wise Question Bank

UNIT-1

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

UNIT–II

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

UNIT–III

S.No		Questions	BT	CO
Part – A (Short Answer Questions)				
1		What is the responsibilities of network layer	L1	CO3
2		What are the metrics used by routing protocols	L1	CO3
3		Explain Logical Addressing.	L1	CO3
4		How congestion avoidance is different from congestion control.	L2	CO3
5		List out the characteristics of QoS?	L1	CO3
6		Explain the types of congestion control Algorithms	L1	CO3
7		Explain sub-netting	L1	CO3
8		Explain IP addressing method.	L1	CO3
9		Explain Flooding	L1	CO3
10		What is internetworking	L1	CO3
Part – B (Long Answer Questions)				
11	a)	Explain design issues of Network Layer	L1	CO3
	b)	Explain Routing in Network Layer	L1	CO3
12	a)	Explain different types of routing algorithms.	L1	CO3
	b)	Explain the three differences between Connection Oriented and Connectionless service	L3	CO3
13	a)	Explain store and forward packet switching.	L1	CO3
	b)	Define congestion. Write congestion control algorithms.	L1	CO3
14	a)	Explain about hierarchical routing algorithms.	L1	CO3
	b)	Difference between Broadcasting and Multi casting	L3	CO3

UNIT–IV

S. No	Questions	BT	CO
1	Explain UDP.	L1	CO4
2	Explain TCP.	L1	CO4
3	Explain the duties of transport layer.	L1	CO4
4	What are the elements in transport protocols	L1	CO4
5	Explain about Congestion Avoidance	L1	CO4
6	Explain about connection management	L1	CO4
7	What is the difference between network layer delivery andthe transport layer delivery?	L3	CO4
8	What is meant by segment?	L1	CO4
9	The transport layer creates the connection between source And destination. What are the three events involved in theconnection?	L3	CO4
10	What are the four aspects related to the reliable delivery of data?	L1	CO4
	Part – B (Long Answer Questions)		
11	a) Explain the duties of transport layer? b) Write short notes on performance issues of transport layer	L3	CO4
12	a) Show the different approaches in Packet Switching. Explain them in detail. b) Explain in detail about the process-to-process delivery using UDP and its uses	L1	CO4
13	a)Enumerate the mechanism of three-way handshake protocolfor TCP b) Describe about a) TCP connection management. b) Avoidance of congestion in TCP	L2	CO4
14	a) Explain in detailed about the Transport Layer. b) Explain the function of TCP/IP protocol.	L1	CO4
15	a) Explain about elements of transport protocols b) Explain the function of TCP/IP protocol.	L1	CO4
	a) Write short notes on User Datagram Protocol (UDP). b) Explain the operation of TCP with neat sketch.		

UNIT–V

S.No		Questions	BT	CO
Part – A (Short Answer Questions)				
1		Explain the functions of SMTP	L1	CO5
2		Write short notes on FTP	L1	CO5
3		Explain about HTTP.	L1	CO5
4		What are the two main categories of DNS messages?	L2	CO5
5		What are the functions of e-mail.	L2	CO5
6		Explain the WWW in detail.	L1	CO5
7		What is the purpose of Domain Name System?	L2	CO5
8		Discuss the three main division of the domain name space.	L2	CO5
9		Why is an application such as POP needed for electronic messaging?	L4	CO5
10		Write down the three types of WWW documents.	L1	CO5
Part – B (Long Answer Questions)				
11	a)	Explain how security is provided in interact operations in detail	L1	CO5
	b)	Explain the working of Electronic mail. How SMTP used inEmail applications	L1	CO5
12	a)	List and discuss the types of DNS records.	L1	CO5
	b)	Discuss in detail about world wide web	L2	CO5
13	a)	Discuss Application layer in details	L2	CO5
	b)	Explain in detail about function and structure of e-mail protocol.	L1	CO5
14	a)	Discuss the File transfer Protocol (FTP)with a neat diagram.	L1	CO5
	b)	Explain briefly simple network management protocol	L3	CO5
15	a)	Discuss the features of HTTP and also discuss how HTTP works.	L2	CO5
	b)	Explain about Application layer and its services in detail?	L1	CO5

16	a)	Describe the role of a DNS on a computer network with referenceto its components.	L3	CO5
	b)	Write briefly about World wide web	L2	CO5

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

Course Outcomes (CO)

Program Outcomes (PO)