Reg.No.:												

VIVEKANANDHA COLLEGE OF ENGINEERING FOR WOMEN
[AUTONOMOUS INSTITUTION AFFILIATED TO ANNA UNIVERSITY, CHENNAI]
Elayampalayam – 637 205, Tiruchengode, Namakkal Dt., Tamil Nadu.

Question Paper Code: 6003

B.E. / B.Tech. DEGREE END-SEMESTER EXAMINATIONS – MAY / JUNE 2024
Sixth Semester
Information Technology
U19IT621 – COMPUTER COMMUNICATION NETWORKS
(Regulation 2019)

Time: Three Hours | Maximum: 100 Marks

Answer ALL the questions

Knowledge Levels (KL)	K1 – Remembering	K3 – Applying	K5 - Evaluating
	K2 – Understanding	K4 – Analyzing	K6 - Creating

PART – A

(10 x 2 = 20 Marks)

Q.No.	Questions	Marks	KL	CO
1.	Differentiate between physical addressing and logical addressing.	2	K3	CO1
2.	What is a spread spectrum?	2	K1	CO1
3.	What is framing?	2	K2	CO2
4.	What is CSMA/CD stand for and how it is useful?	2	K2	CO2
5.	Mention the services of the network layer.	2	K2	CO3
6.	Differentiate between unicast, multicast and anycast with respect to Network Layer.	2	K3	CO3
7.	Define piggybacking and how does it help in the transport layer.	2	K2	CO4
8.	What are port numbers and give the port number for a web site?	2	K2	CO4
9.	What is SNMP and how is it useful?	2	K2	CO5
10.	Differentiate between Telnet and SSH.	2	K3	CO5

PART – B

(5 x 13 = 65 Marks)

Q.No.		Questions	Marks	KL	CO
11.	a)	With a brief diagram, explain the functionality of each layer of a OSI Model.	13	K3	CO1

		(OR)			
	b)	Discuss the functionality of TCP/IP Protocol suite with a neat diagram and map the functionality with the layers of the OSI model.	13	K3	CO1
12.	a)	Discuss the classification of Medium Access Control protocols and explain FDMA, TDMA and CDMA.	13	K3	CO2
		(OR)			
	b)	i. Explain with a neat diagram standard Ethernet frame format.	10	K2	CO2
		ii. Differentiate between Fast Ethernet and Gigabit Ethernet.	3		
13.	a)	i. Discuss the classification of IPV4 addresses.	9	K2	CO3
		ii. What is loopback address, broadcast address and subnet mask?	4		
		(OR)			
	b)	Discuss the classification of routing protocols and explain with an example.	13	K2	CO3
14.	a)	Explain the TCP header format and discuss connection oriented and connectionless services in transport layer.	13	K2	CO4
		(OR)			
	b)	Explain various flow control protocols used in TCP.	13	K2	CO4
15.	a)	Explain in detail about HTTP with appropriate diagrams and its methods.	13	K2	CO5
		(OR)			
	b)	Explain Electronic mail and discuss SMTP with appropriate diagram and functionality.	13	K2	CO5

PART – C

(1 x 15 = 15 Marks)

Q.No.		Questions	Marks	KL	CO
16.	a)	Compare and discuss IPV4 and IPV6 in terms of header format, support for mobility or roaming, quality of service and broadcasting.	15	K3	CO3
		(OR)			
	b)	Discuss Quality of Service, Data flow characteristics that can influence QoS and also the techniques to improve QoS.	15	K2	CO4