R20 Regulation *Subject code:3O5BB*

TKR COLLEGE OF ENGINEERING AND TECHNOLOGY

(Autonomous, Accredited by NAAC with 'A+' Grade)

B.Tech V Semester Regular Examinations, February 2024

Computer Networks

(Electrical & Electronics Engineering)

Maximum Marks: 70 Date:27.02.2024 Duration: 3 hours

Note: 1.This question paper contains two parts A and B.
2. Part A is compulsory which carries 20 marks. Answer all questions in Part A.
3. Part B consists of 5 Units. Answer any one full question from each unit.
4. Each question carries 10 marks and may have a, b, c, d as sub questions.

	Part-A	CO	Bloom Tx
All the following questions carry equal marks (10X2M=20 Marks)			
1	How are the subgroups of OSI model layers segregated by their functions?	CO1	I
2	Mention the criteria used to evaluate transmission medium.	CO1	II
3	List out the functions of the Data Link Layer.	CO2	I
4	Draw the frame format of Ethernet.	CO2	II
5	Write the keys for understanding the distance vector routing.	CO3	II
6	What are the network support layers and the user support layers?	CO3	I
7	What do you mean by slow start in TCP congestion?	CO4	I
8	Compare: flow control versus congestion control.	CO4	II
9	Write the use of Hyper Text Transfer Protocol.	CO5	I
10	List the difference between IMAP and POP.	CO5	II
	Part-B		
Answer All the following questions. (5X10M=50Marks)			Bloom Tx
11	What are the layers of the ISO/OSI protocol stack? Give an account of their functions. [10]	CO1	II
	OR		
12	Describe circuit-switching and packet-switching with an example. [10]	CO1	II
13	Explain in detail about the error detection and error correction. [10]	CO2	II
	OR		
14	Explain the architecture of IEEE 802.11 Wireless LAN. [10]	CO2	II
15	Elaborate about functioning of network layer in Internet and in ATM Networks. [10]	CO3	III
	OR		
16	In the virtual circuit networks service model, before a virtual circuit is set up, the source router needs to specify a path (e.g the shortest path) from the source to the destination .List the additional information that are needed for routing. Write down the resulting routing table. [10]	CO3	V

17	In larger network, two hosts or node can communicate simultaneously over the network due to traffic. How do you handle the congestion through congestion control mechanism? [10]	CO4	IV
	OR		
18	Since TCP guarantees packet delivery and it can be considered "reliable", whereas UDP doesn't guarantee anything and packets can be lost. What would be the advantage of transmitting data using UDP in an application rather than over a TCP stream? In what kind of situations would UDP be the better choice, and why? [10]	CO4	V
19	What is the format of an email? Explain the architecture of a mailing system. [10]	CO5	III
	OR		
20	Describe in detail about Domain name system and SNMP. [10]	CO5	V