



R20 Regulation

Subject code: 3P5EC

# TKR COLLEGE OF ENGINEERING AND TECHNOLOGY

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

**B.Tech V Semester Supplementary Examinations, July 2024**

## COMPUTER NETWORKS

(CSE)

Maximum Marks: 70

Date:24.07.2024 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	What is internet? Differentiate it from intranet.	1	L1
2	What are the network hardware components?	1	L1
3	What is the use of data link layer?	2	L1
4	What is collision free protocol?	2	L1
5	What are the design issues of network layer?	3	L1
6	State general principles of congestion control.	3	L1
7	List the elements of transport protocol.	4	L1
8	Mention the applications of UDP.	4	L1
9	Define HTTP with example?	5	L1
10	What is the difference between SMTP and IMAP?	5	L1
Part-B			
Answer All the following questions. (5X10M=50Marks)			
11	a) Explain the functionality of each layer in OSI/ISO reference model with a neat sketch. [5] b) Explain in detail about different Network Topologies. [5]	1	L2 L2
OR			
12	a) Explain briefly about ARPANET? [5] b) Describe guided transmission media. [5]	1	L2 L5
13	a) Elaborate on the design issues of data link layer. [5] b) Explain Sliding window protocol. [5]	2	L3 L2
OR			
14	a) What is the purpose of CSMA? Explain it. [5] b) In detail, explain the various ALOHA protocols. [5]	2	L1,L2
15	a) Discuss the Hierarchical routing with example. [5] b) Differentiate between broad casting and Multi casting. [5]	3	L6 L2
OR			
16	a) What is Congestion Control. Explain the leaky bucket algorithm. [5]	3	L1,L2

	b) Explain the congestion prevention policies. [5]		L2
17	a) What are the services provided by transport layer to the upper layers? Explain. [5] b) Explain the connection establishment and release in transport layer. [5]	4	L1,L2 L2
	OR		
18	a) Describe in detail about TCP segment header and connection Establishment. [5] b) What is the main purpose of UDP protocol? Explain about its header. [5]	4	L5 L1,L2
19	a) What is electronic mail? Describe in brief about sending and receiving e-mail. [5] b) What is DNS? Explain the architecture of DNS servers in internet? [5]	5	L1,L5 L1,12
	OR		
20	a) What is HTTP? Describe in brief about HTTP request methods. [5] b) Write short notes on: [5] i) SMTP ii) IMAP	5	L1,L5 L2