



R20 Regulation

Subject code:305BB

TKR COLLEGE OF ENGINEERING AND TECHNOLOGY

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

B.Tech V Semester Supplementary Examinations, May 2025

COMPUTER NETWORKS

(EEE)

Maximum Marks: 70

Date: 27.06.2025

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

All the following questions carry equal marks (10X2M=20 Marks)		Marks	CO	BTL
1	What is OSI?	2M	1	L1
2	Define Computer Network?	2M	1	L1
3	List out the functions of the Data Link Layer?	2M	2	L1
4	List the differences between Circuit Switching and Packet Switching	2M	2	L1
5	What is unicast communication?	2M	3	L1
6	Define Broad Casting	2M	3	L1
7	Compare connectionless service and Connection Oriented service	2M	4	L1
8	What are the advantages of using UDP over TCP?	2M	4	L1
9	Define www.	2M	5	L1
10	What is Simple mail transfer protocol?	2M	5	L1

Part-B

Answer All the following questions. (5X10M=50Marks)		Marks	CO	BTL
11	What is TCP/IP Model? Explain the functions, protocols and services of each layer. Compare it with OSI Model?	10M	1	L2
OR				
12	a) Explain briefly about ISDN. b) What are the differences between Narrow-Band and Broad-Band?	5M 5M	1	L2
13	a) Explain Design issues in Data Link Layer. b) What is ALOHA? Explain in detail about pure ALOHA and Slotted ALOHA.	5M 5M	2	L2
OR				
14	Compare and contrast Stop-and-Wait and Sliding window protocols, discuss their advantages and dis-advantages.	10M	2	L2
15	Discuss briefly about shortest path routing algorithm with suitable examples.	10M	3	L2
OR				
16	Explain briefly about unicast, multicast, broadcast routing.	10M	3	L2

17	a) Explain about TCP & UDP Protocol. b) What are the general principles of congestion prevention policies and explain it.	5M 5M	4	L2
OR				
18	a) Explain briefly about Leaky bucket algorithm. b) Explain about ATM Adaptation Layer (AAL) and its functions.	5M 5M	4	L2
19	a) Explain different types of electronic mails. b) Explain SMTP.	5M 5M	5	L2
OR				
20	a) Explain about DNS. b) Explain SNMP.	5M 5M	5	L2