R20 Regulation *Subject code: 3O7DA*

TKR COLLEGE OF ENGINEERING AND TECHNOLOGY

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

B.Tech VII Semester Supplementary Examinations, May 2026

COMPUTER NETWORKS

(ECE)

Maximum Marks: 70 Date: 13.05.2026 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 the difference between half duplex and full duplex transmission modes?	2M	1	L1
2	What is meant by peer-to-peer network?	2M	1	L1
3	Define vulnerable time.	2M	2	L1
4	What is the difference between byte oriented and bit oriented protocols?	2M	2	L1
5	Define subnetting.	2M	3	L1
6	What is meant by congestion?	2M	3	L1
7	Mention Elements of transport protocol	2M	4	L1
8	Write any two differences between TCP & UDP.	2M	4	L1
9	What are the five types of multimedia?	2M	5	L1
10	What is the difference between Bluetooth and WI-FI?	2M	5	L1

Part-B

Answer All the following questions. (5X10M=50Marks)		Marks	CO	BTL
11	Explain the difference between a port address, a logical address and a physical address with example.	10M	1	L2
	OR			
12	Explain the TCP/IP protocol suit in detail, with their protocols.	10M	1	L2
13	Draw and explain MAC layers in IEEE 802.11 standard in the case of physical and data link layers.	10M	2	L2
	OR			
14	Explain in detail about ALOHA.	10M	2	L2
15	Explain the link state routing method with an example and the steps required to build a routing table.	10M	3	L2
	OR			

16	Name the three transition strategies and explain the differences between them.	10M	3	L2
17	Explain the process-to-process delivery. Name the different protocols for process-to-process delivery and compare them.	10M	4	L2
	OR			
18	Discuss congestion control techniques and mechanisms in detail.	10M	4	L2
19	a) Explain the key principles of network security. b) What are the five services provided by the network security?	5M 5M	5	L2
	OR			
20	Explain IP security (IPsec) operation modes, and other protocols used in the IPsec.	10M	5	L2