R18 Regulation *Subject code: 2P5EB*

TKR COLLEGE OF ENGINEERING AND TECHNOLOGY

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

B.Tech V Semester Regular/Supplementary Examinations, December 2021

COMPUTER NETWORKS

(Computer Science and Engineering)

Maximum Marks: 70 ***Date:03.01.2022*** 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)

1 What are the advantages of layered protocol stack?
2 List different network topologies?
3 Define bit stuffing and character stuffing.
4 Write any two differences between PPP and HDLC?
5 Mention any two differences between circuit switched networks and datagram networks.
6 Why the class C is most commonly used Network class?
7 Mention Congestion Prevention Policies and how does it work.
8 Why three way handshake is used in TCP.
9 What is IMAP? Why it is required in computer networks?
10 Discuss the properties of file transfer protocol.

Part-B

Answer All the following questions. (10M X 5=50Marks)

11 With a neat diagram explain the OSI reference model in detail? Explain the functions performed in each layer? (10M)

OR

12 a) Elicit types of transmission media with their merits and demerits? (5M)
b) What is multiplexing? Explain in detail about various types of multiplexing? (5M)

13 a) Explain with neat diagram CSMA Schemes in detail? (5M)
b) Explain HDLC packet format in detail. (5M)

OR

14 What are the different types of error detection methods? Explain the CRC error detection technique using generator polynomial x4+x3+1 and data 11100011. (10M)

15 Give an example to explain any one of the multicasting routing algorithm? (10M)

OR

16 Explain Distance Vector Routing in detail with example? (10M)

17 Explain TCP & UDP Protocols in detail ? (10M)

OR

18 Explain Congestion prevention policies ATM AAL Layer Protocol. (10M)

19 a) Write short Notes on FTP and WWW. (5M)
b) What is SNMP? Briefly discuss the SNMP model components. (5M)

OR

20 Explain DNS in detail? (10M)