



Regulation R17

Subject code: 1P5FB

TKR COLLEGE OF ENGINEERING AND TECHNOLOGY

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

B.Tech III Year I Semester Supplementary Examinations, January 2023

Data Communications and Computer Networks

Information Technology

Maximum Marks: 70

09/01/2023

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 List various components in a network?
- 2 Write the advantages of Optical fiber over Coaxial cable?
- 3 Define Bit stuffing?
- 4 Explain how throughput is improved in Slotted Aloha over Pure Aloha?
- 5 Write about CIDR?
- 6 List different types of links in OSPF?
- 7 Differentiate connectionless and connection oriented service?
- 8 Define choke packet?
- 9 List Management components in SNMP?
- 10 Explain about TELNET?

Part-B

Answer All the following questions.

(5X10M=50Marks)

- 11 What is Multiplexing? Explain in detail about Various types of Multiplexing? 10
- OR
- 12 With a neat diagram explain the OSI reference model in detail? Explain the functions performed in each layer? 10
- 13 Explain about High Level Data Link Control Frame format in detail? 10
- OR
- 14 Design CSMA schemes with neat diagram? 10
- 15 With an example explain shortest path routing? 10
- OR
- 16 a) What is classful addressing? Discuss class A, class B, class C, class D, class E address with its range in decimal dotted notation and example? 5
- b) Describe about Network Address Translation? 5
- 17 Explain about a) Leaky Bucket? 5
- b) Token Bucket? 5

OR

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|----|---|----|
| 18 | a) Explain about Quality of Service? | 5 |
| | b) Briefly explain Integrated Services? | 5 |
| 19 | What is the use of DNS? Explain how it works in internet? | 10 |
| | OR | |
| 20 | a) Explain about FTP? | 5 |
| | b) Briefly explain about SMTP? | 5 |