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**SIDDHARTH INSTITUTE OF ENGINEERING & TECHNOLOGY:: PUTTUR**  
(AUTONOMOUS)

**B.Tech III Year I Semester Supplementary Examinations December-2021**  
**COMPUTER NETWORKS**

(Computer Science & Information Technology)

Time: 3 hours

Max. Marks: 60

(Answer all Five Units 5 x 12 = 60 Marks)

**UNIT-I**

1 List and Explain major components of an Optical Communication System. 12M

**OR**

2 a Compare Connection oriented and connectionless service. 6M

b Explain the functions and protocols and services of each layer? 6M

**UNIT-II**

3 Explain MAC sub layer protocol and frame structure of IEEE 802.11. 12M

**OR**

4 a Discuss stop and wait protocol. 6M

b Explain about the Carrier Sense Multiple Access Protocols. 6M

**UNIT-III**

5 a State the major difference between distance vector routing and link state routing. 6M

b Explain packet switching in detail. 6M

**OR**

6 Explain in detail congestion control algorithms 12M

**UNIT-IV**

7 Enumerate the mechanism of three way handshake protocol for TCP. 12M

**OR**

8 a Explain the duties of transport layer. 6M

b Write short notes on performance issues of transport layer. 6M

**UNIT-V**

9 a Discuss the File transfer Protocol (FTP) with a neat diagram. 6M

b Explain briefly simple network management protocol. 6M

**OR**

10 a List and discuss the types of DNS records. 6M

b Discuss in detail about SMTP. 6M

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