

III B. TECH I SEMESTER REGULAR EXAMINATIONS, FEB - 2022
COMPUTER NETWORKS-SET-1
(Electronics & Communication Engineering)

Time: 3 Hours**Max. Marks: 60**

Note: Answer ONE question from each unit (5 × 12 = 60 Marks)

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UNIT-I

1. a) Compare Connection oriented and connectionless service. [5M]
- b) Explain the functions and protocols and services of each layer in TCP / IP. [7M]

(OR)

2. a) Explain the ISO-OSI model of computer network with a neat diagram. [7M]
- b) Give comparison of the OSI and TCP/IP. [5M]

UNIT-II

3. a) Explain MAC sub layer protocol and frame structure of IEEE 802.11. [6M]
- b) Examine the Stop-and-Wait ARQ in the Damaged frames and Lost data frames. [6M]

(OR)

4. a) Explain methods used for error detection and error correction. [7M]
- b) Write significance of ALOHA. [5M]

UNIT-III

5. a) What is internetworking? Explain its service model and global address. [7M]
- b) A company is granted the site address 181.56.0.0 (class B). The company needs 1000 subnets. Design the subnets. [5M]

(OR)

6. a) Explain the operations and packet format of ARP. [6M]
- b) Explain the features of ICMP. [6M]

UNIT-IV

7. a) Elaborate on TCP connection Management using neat diagram. [8M]
- b) List the various congestion control mechanisms. [4M]

(OR)

8. a) Analyze why does TCP uses an adaptive transmission and describe its mechanism [6M]
- b) Explain how reliable and ordered delivery is achieved through TCP. [6M]

UNIT-V

9. a) With appropriate diagram describe DNS. [6M]  
b) Write the salient features of Network Security [XM]

(OR)

10. a) Outline the working of File Transfer Protocol (FTP). [6M]  
b) Outline the salient features of the SMTP protocol. [6M]

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