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SIDDHARTH INSTITUTE OF ENGINEERING & TECHNOLOGY:: PUTTUR
(AUTONOMOUS)**B.Tech III Year II Semester Supplementary Examinations February-2022**
DATA COMMUNICATION AND NETWORKING
(Electronics and Communication Engineering)

Time: 3 hours

Max. Marks: 60

PART-A

(Answer all the Questions 5 x 2 = 10 Marks)

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|----------|----------------------------------------------|-----------|
| 1 | a Why are the protocols needed? | 2M |
| | b What is scatter net? | 2M |
| | c Expand ICMP and Write the function. | 2M |
| | d Differentiate IMPA and POP. | 2M |
| | e What is Networking Security? | 2M |

PART-B

(Answer all Five Units 5 x 10 = 50 Marks)

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|------------------------|--------------------------------------------------------------------------------------------|------------|
| <u>UNIT-I</u> | | |
| 2 | a Discuss the principle of protocol layering. | 5M |
| | b Give comparison between LAN,MAN,WAN. | 5M |
| OR | | |
| 3 | Draw the OSI network architecture and explain the functionalities of each layer in detail. | 10M |
| <u>UNIT-II</u> | | |
| 4 | a Draw the frame format of a Token and explain | 4M |
| | b Discuss the features& write down the classification of wired LANs. | 6M |
| OR | | |
| 5 | a Discuss about the working and performance of Token Bus protocol | 5M |
| | b Draw the frame format for Token Bus and explain. | 5M |
| <u>UNIT-III</u> | | |
| 6 | a Define TCP/IP layering | 5M |
| | b Explain how it is differing from OSI model. | 5M |
| OR | | |
| 7 | a Describe in details the working of ARP protocol. | 5M |
| | b Describe in detail the working of RARP protocol. | 5M |
| <u>UNIT-IV</u> | | |
| 8 | a Explain DNS with reference to its components and working. | 6M |
| | b Explain the message transfer using simple mail transfer protocol. | 4M |
| OR | | |
| 9 | a Discuss the working of frame relay | 5M |
| | b Describe the architecture of ATM. | 5M |
| <u>UNIT-V</u> | | |
| 10 | Write short notes on i) Connecting devices ii)Routers. | 10M |
| OR | | |
| 11 | Discuss in detail i)Bridges ii) Gateways | 10M |

END