

Duration : 3 Hrs

Total Marks : 80

- N.B. : 1. Question No. 1 is Compulsory.
 2. Attempt **any three** questions, from remaining **five** questions.
 3. Figure to the right indicates full marks

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| Q.1. | A) What are guided and unguided transmission media. | 5 |
| | B) Compare various network topologies. | 5 |
| | C) Why subnetting is required and how it is done in classful IP addressing. | 5 |
| | D) Explain FTP and the two TCP Connections. | 5 |
| Q.2. | A) Explain TCP/IP model with neat diagram and the functions of each layer. | 10 |
| | B) Explain various Internetworking devices. | 10 |
| Q.3. | A) What is the difference between static and dynamic routing ? Explain Distance Vector Routing with example. | 10 |
| | B) What is framing? Explain various framing techniques. | 10 |
| Q.4. | A) What are Berkley socket primitives? Explain in brief. | 10 |
| | B) What is error detection and correction? Explain CRC with example. | 10 |
| Q.5. | A) What is congestion control ? Explain open loop and closed loop congestion control. | 10 |
| | B) Explain in brief – | 10 |
| | a) Telnet and SSH. | |
| | b) TCP timers | |
| Q.6. | Write Short Note on (Any four) | 20 |
| | (a) TCP segment header | |
| | (b) Bluetooth Architecture | |
| | (c) Aloha and its types | |
| | (d) SNMP | |
| | (e) Design issues for various layers | |