

Q.P. Code : 13122

[Time: Three Hours]

[Marks:80]

Please check whether you have got the right question paper.

- N.B: 1. Question No 1 is compulsory.
2. Attempt any three questions out of remaining questions.

- Q. 1** Answer **any four** from the following. **20**
- "Internet has a connectionless service at network layer." Is the statement true or false? Justify your answer.
 - Define framing and state reason for its need.
 - Differentiate between slotted ALOHA and Pure ALOHA.
 - Explain Go - Back - N ARQ.
 - Differentiate between a physical address and a logical address.
- Q. 2** **10**
- What is OSI model? Give function and services of each layer.
 - Explain the different Guided transmission media in networking. **10**
- Q. 3** **04**
- In an IPv4 packet, the value of HLEN is 1000 in binary. How many bytes of options are being carried by this packet?
 - Explain IP address and subnet mask. **06**
 - Differentiate between UDP and TCP. **10**
- Q. 4** **10**
- Explain Sliding Window protocol with neat diagram.
 - Explain CRC with example. **10**
- Q. 5** **10**
- What is routing? Explain different categories of routing algorithms.
 - Draw and Explain TCP segment header. **10**
- Q. 6** Write short notes on the following (**any four**): **20**
- Networking using Windows and LINUX operating system
 - Mobile Telephone system
 - Hub, Switches, Router
 - Network topology
 - Communication satellite