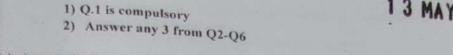
## SE | IT | Sem IN | CBCS

[Time: Three Hours]

Note:



- Q.1. Answer the following (5M each)
  - a) Consider five source symbols of a discrete memory less source their probabilities as shown. Follow the Huffman's algorithm to find the codewords for each message: 0.4 0.2 0.2 0.1
  - b) Compare Bus and Star topology
  - c) Compare Message Switching and Circuit Switching
  - d) Compare LAN, MAN, WAN
- Q.2. a) Draw and explain the OSI Reference Model. Q.2. b) Generate the CRC code for a dataword 110010101. The divisor 10101. Check whether there are errors in the received codeword.

(10)

- Q.3. a) Explain ALOHA and Slotted ALOHA. (10)
- Q.3. b) Compare wired and wireless media. (10)
- O.4. a) Explain the IPV4 header format. (10)
- O.4. b) Compare TCP and UDP. (10)
- Q.5. a) What is routing? Explain DVR with an example. (10)
- (10)Q.5. b) Explain sliding window protocol.
- Q.6. Write short notes on any four: (5M each)
  - a) Speech Compression
  - b) DNS
  - c) Congestion Control
  - d) TCP Timers
  - e) WWW