

Q.3. A) Why millions of Internet users who need to connect their home computers to the server of an Internet service provider use PPP? Enlist the different services are provided by PPP and missing services? [05]

OR

B) What are three sets of protocols are defined to make PPP powerful? What are three categories of LCP packets? Weather Challenge Handshake Authentication Protocol (CHAP) provides greater security than PAP? Justify your answer. [05]

C) How to allocate the multi-access channel among competing users? Do we need a multiple access protocol when we use the local loop of the telephone company to access the Internet? Why? [05]

Q.4. A) What should a station do if the channel is busy? And what should a station do if the channel is idle? [05]

B) Answer the following [05]

1. Compare and contrast the Go-Back-N ARQ Protocol with Selective-Repeat ARQ.
2. Define piggybacking and its usefulness

Q.5. A) In CRC, show the relationship between the following entities (size means the number of bits): [06]

1. The size of the dataword and the size of the codeword
2. The size of the divisor and the remainder
3. The degree of the polynomial generator and the size of the divisor
4. The degree of the polynomial generator and the size of the remainder

B) Compare ALOHA and Carrier Sense Multiple Access with Collision Detection (CSMA/CD). [04]

OR

C) Enlist popular controlled-access methods. Describe Logical ring and physical topology in token-passing access method. [04]