AK-124

April-2016

M.Sc., Sem.-VI (CA & IT)

Data Communication & Networking

Time : 3 Hours]   **[Max. Marks : 100**

1.   [A]   Answer the following questions (Any **Five**) :   **10**

       1.   What is Communication System ?

       2.   What is Dataflow Mode ?

       3.   What is Persist method ?

       4.   What is Automatic Repeat Request (ARQ) ?

       5.   What is Composite Signal ?

       6.   Explain bandwidth-delay product.

   [B]   Explain following term (Any **Five**) :   **10**

       1.   Topology

       2.   Bandwidth

       3.   Coaxial Cable

       4.   Parity Bit

       5.   Piggybacking

       6.   SOCKET

2.   [A]   Answer the following questions (Any **Three**) :   **18**

       1.   What is Transmission Impairment ? Discuss in detail.

       2.   What is Multiplexing ? Explain Frequency Division Multiplexing (FDM).

       3.   What is Spread Spectrum ? Explain Frequency Hopping Spread Spectrum.

       4.   Discuss Fiber Optics cable in detail.

   [B]   Explain Repeater.   **2**

3. [A] Answer the following questions (Any **Three**) :   **18**

        1.   What is Switching Network ? Explain Circuit Switching Network.

        2.   What is Error Detection ? Calculate the codeword for dataword 1110 using Cyclic Redundancy Check (CRC). Divisor is 1011.

        3.   What is Sliding Window Protocol ? Explain Go-Back N protocol.

        4.   What is CSMA ? Explain CSMA/CD Protocol.

    [B] Explain Block Coding.   **2**

4. [A] Answer the following questions :   **18**

        1.   Explain CDMA in detail.

        2.   What is Dynamic Routing Table ? Explain Distance Vector Routing Algorithm

        3.   What is Classful IP address ? Explain in detail.

    [B] Explain Port Address.   **2**

5. Explain following in detail (Any **Four**)   **20**

    1.   TDM

    2.   Checksum

    3.   Polling

    4.   User Datagram

    5.   CSMA/CA

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