ELECTIVE - I
Broadband Communication (New)
(1255)

P. Pages : 2

Time : Three Hours   **Max. Marks : 100**

Instructions to Candidates :
1. Do not write anything on question paper except Seat No.
2. Answer sheet should be written with blue ink only. Graph or diagram should be drawn with the same pen being used for writing paper or black HB pencil.
3. Students should note, no supplement will be provided.
4. Draw diagrams wherever necessary.

UNIT – I

1.   Solve **any two** of the following.

     a)   List various advantages of packet switching mechanism and describe the two approaches used in packet switched network.   **10**

     b)   How packet switching improves the performance of the network? Describe the effect of size of packet to be transmitted as propagation delay.   **10**

     c)   What is X.25? How it differs from normal packet switching concept? With appropriate diagram explain the sequence of events taking place in X.25.   **10**

UNIT – II

2.   Solve **any two** of the following.

     a)   What is congestion in frame relay network? Describe various objectives for frame relay congestion control.   **10**

     b)   What are the characteristics of frame mode bearer services? Draw and explain the protocol architecture to support frame mode bearer services.   **10**

     c)   What are the differences between frame relay and conventional X.25 approach? With appropriate diagram describe various frame relay access modes.   **10**

UNIT – III

3. Solve **any two** of the following.

   a) With reference to ISDN describe various functional groupings and reference points in detail.   **10**

   b) Describe various interworking functions to be implement to provide compatibility between ISDN and existing network. Explain ISDN – PSTN interworking mechanism.   **10**

   c) With a appropriate diagram explain ISDN protocol stack.   **10**

UNIT – IV

4. Solve **any two** of the following.

   a) What are different services provided by application & adaptation layer in ATM? Describe AAL2 layer protocol in detail.   **10**

   b) What is ATM? Draw the ATM cell format and describe the concept of Generic flow control in detail.   **10**

   c) Explain in brief :   **10**

     i) VP switching hierarchy

     ii) Cell Delineation state diagram.

UNIT – V

5. Solve **any two** of the following.

   a) What is B-ISDN? Describe various class of services offered by B-ISDN.   **10**

   b) What is SONET? With a neat diagram describe SONET system hierarchy.   **10**

   c) With reference to B-ISDN describe B-ISDN protocol reference architecture. What are different data rate options provided by physical layer of B – ISDN.   **10**

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