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DFI1345

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. Answersheet 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) Draw various x.25 packet formats and describe how flow control and error control is obtained using x.25 protocol. How x.25 recovers from errors. 10
- b) What are the drawbacks associated with in channel signalling ? How common channel signalling resolves these ? Describe various modes of operation of common channel signalling with appropriate diagrams. 10
- c) Explain with appropriate event timing diagram the differences between circuit and packet switching mechanism. 10

UNIT - II

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

- a) What is LAPF ? With necessary representation describe LAPF core formats giving various contents of address field used in it. 10
- b) What are the differences of frame relaying from the conventional x.25 packet switching ? Explain in detail the protocol architecture at the user network interface to support frame mode bearer services. 10
- c) What is congestion in traffic ? Describe the performance of system in congestion with various graphs with respect to through put and delay. 10

UNIT - III

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

- a) What is ISDN ? Give principles and evolution of ISDN. 10
- b) With appropriate flow diagram describe the call-Negotiation procedure and different steps involved in ISDN - ISDN inter working. 10
- c) With a neat structure explain ISDN protocol architecture and protocols used in every layer. 10

UNIT - IV

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

- a) Draw the ATM cell format and with appropriate algorithm describe the HEC at the receiver. 10
- b) What are different services provided by AAL ? With a neat sketch explain AALS protocol. 10
- c) With the help of proper diagram explain input and output buffering. Why buffers are used in ATM switch ? 10

UNIT - V

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

- a) What are the features of SONET ? Explain SONET frame format in detail. 10
- b) Explain in detail various class of services offered by B - ISDN. 10
- c) With a suitable diagram describe in detail the broadband ISDN protocol stack with function of each layer. 10
