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JAYA GROUP OF INSTITUTIONS – THIRUNINRAVUR.

8TH SEMESTER – B.E / B.Tech.

INTERNAL ASSESSMENT - II (MODEL EXAMINATION - II)

Sub.Name: TELECOMMUNICATION AND SWITCHING NETWORKS

Date: 10/03/2015

Sub.Code: EC2044

Branch: ECE

Duration: 180 Minutes

Max.Marks:100

PART – A (10X2=20) Answer all questions

1. What is meant by an elastic store?
2. Define timing jitter.
3. What is meant by pulse stuffing?
4. List the sources of clock instability in a network.
5. What is meant by 'Slips' in digital switching network?
6. What are the problems occurred in FTTH?
7. What are the functions of ISDN-U interface?
8. Compare FTTH and FTTC.
9. State any two basic features of ISDN-B channels.
10. Write the features and applications of VDSL.

PART – B (5X16=80) Answer the questions as per the choice

- 11) a) (i) What is meant by network synchronization? Briefly explain various techniques used to deal with the network synchronization issues. (12)
- (ii) Explain how PLL can measure timing jitter. (4)
- OR
- b) (i) Explain the concept of pulse stuffing associated with asynchronous multiplexing. (8)
- (ii) Discuss the structure of M12 Multiplexer and demultiplexure. (8)
- 12) a) (i) Discuss the main source of clock instability in a digital network. (8)
- (ii) Discuss the principle of network control management. (8)

OR

- b) Explain the basic approaches of network synchronization briefly and discuss the U.S network synchronization. (16)

- 13) a) Describr in detail about (16)
 (i) Phase locked loop . (ii) Jitter measurements. (iii) Systematic jitter.

OR

- b) Describr in detail about (16)
 (i) Hybrid fiber coax systems (ii) PCM modems. (iii) ISDN B and D channels.

- 14) a) Describe the Architecture of ISDN. (16)

OR

- b) (i) Explain the techniques used in high data rate digital subscriber loops. (8)
 (ii) Discuss the principles of digital loop carrier systems. (8)

- 15) a) Discuss the ASDL network configuration and also explain ASDL DMT with block diagram. (16)

OR

- b) Short notes on. (8)
 (i) Voice band modems. (8)
 (ii) Digital Satellite services.