Reg. No. :

Question Paper Code: 92021

M.E. DEGREE EXAMINATION, MAY 2014.

Elective

Communication Systems

01PCM504 - HIGH PERFORMANCE COMMUNICATION NETWORKS

(Regulation 2013)

Duration: Three hours   Maximum: 100 Marks

Answer ALL Questions.

PART A - (10 x 2 = 20 Marks)

1. List the SONET data rates.

2. Draw the protocol reference model of BISDN.

3. What are the functions performed by Media player?

4. What is called differentiated services?

5. Define P2P connection.

6. Mention the benefits of VPN.

7. State the need for network modeling.

8. Give the significance of Poisson modeling.

9. Differentiate between an active and passive intruder.

10. What is meant by SMI? and List its data types.

PART - B (5 x 14 = 70 Marks)

11. (a) (i) Discuss the functions of various layers of OSI model.   (7)

    (ii) Explain the working principle of DWDM.   (7)

(b) Explain the ISDN protocol architecture with neat sketches. (14)

12. (a) Describe the working of Real Time Streaming Protocol. (14)

Or

(b) Explain the scheduling and policing mechanism with neat sketches. (14)

13. (a) (i) Explain the MPLS operation in detail. (7)

(ii) Describe the access method in VPN for remote users. (7)

Or

(b) (i) Describe the tunneling and point to point protocol in detail. (7)

(ii) Differentiate between leaky bucket traffic shaper and token bucket shaper. (7)

14. (a) Explain the Poisson modeling and its failure in detail. (14)

Or

(b) Explain how traffic modeling helps in network management. (14)

15. (a) What is cryptography and explain the principles of cryptography with neat sketches. (14)

Or

(b) Describe the following.

(i) ASN.1 (7)
(ii) Firewall. (7)

PART - C (1 x 10 = 10 Marks)

16. (a) Apply RSA algorithm, to encode the text message "hello" with p = 3 and q = 11, and decrypt the same to recover original plain text message. (10)

Or

(b) State and prove little's theorem. (10)

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