

MAY 2011

**P/ID 16107/
KAG/PITD**

Time : Three hours

Maximum : 75 marks

PART A — (5 × 5 = 25 marks)

Answer ALL questions.

All question carry equal marks.

1. (a) What is a computer network and explain the benefits of computer networks?

Or

- (b) Describe the ATM adaptation layer functions in detail.

2. (a) With suitable example explain how hamming code is used to correct single bit error.

Or

- (b) What is HDLC? Explain.

3. (a) Explain IEEE 802.3 standard in detail.

Or

- (b) What is bridge? How it is used to interconnect LANS's?

4. (a) Compare datagram and virtual circuit subnets.

Or

- (b) Explain flow-based routing with suitable example.

5. (a) Describe RSA algorithm with suitable example.

Or

- (b) Explain any five SMTP commands and its responses.

PART B — (5 × 10 = 50 marks)

Answer any FIVE questions.

All questions carry equal marks.

6. Briefly explain the interconnection topologies of point-to-point subnets and state the advantages and disadvantages of each of them.
7. Describe various transmission media and their characteristics in detail.
8. Describe various protocol specification models.

9. What are the differences between transparent bridge and source routing bridge? Explain.
 10. Explain the algorithms used for traffic shaping.
 11. What is an IP? What are the different IP address formats? Explain IPv4 header format.
 12. Describe the congestion control mechanisms used in ATM networks.
 13. Explain DES algorithm in detail.
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