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Reg. No.....

Name.....

B.Sc. (ELECTRONICS AND COMPUTER HARDWARE) DEGREE (SPECIAL MERCY CHANCE) EXAMINATION, JANUARY 2025

Sixth Semester

COMPUTER NETWORK

(Prior to 2009 Admissions)

Time : Three Hours | Maximum Marks : 75

Answer any **five** *questions.*
Each question carries 15 *marks.*

1. (a) Draw and explain the seven layers of ISO OSI reference model. (8)

   (b) Distinguish between the analog and digital transmission. (7)

2. (a) Illustrate the functions of one-bit sliding window protocol. (8)

   (b) What are the difference between error detection and correction ? Explain. (7)

3. (a) Outline the general architecture of IEEE standard 802. (8)

   (b) Conclude the technique used for shortest path algorithm. (7)

4. (a) Estimate the basic concept of distance vector routing algorithm. (8)

   (b) What are the approaches to congestion control algorithm? Explain. (7)

5. (a) Evaluate the requirements of pocket radio networks. (8)

   (b) How networks can be connected ? Explain. (7)

6. (a) Examine the protocol scenarios for establishing a connection using three-way handshake. (8)

   (b) Discuss the importance of crash recovery. (7)

7. (a) What are the steps in making a remote procedure call ? Explain. (8)

   (b) Demonstrate the various techniques used for data compression. (7)

8. (a) Elaborate the architecture and services of electronic mail. (8)

   (b) Compare the substitution ciphers and transposition ciphers in cryptographic. (7)

(5 × 15 = 75)