SYNERGY INSTITUTE OF ENGINEERING AND TECHNOLOGY, DHENKANAL
Near NH-55, Banamali Prasad – 759001

Assignment-II

Name-
Full Marks-40 **Duration-Within 1 Week from Notification**
Registration No-

Subject with Code: COMPUTER NETWORKS (**CSPC2007**) **Course & Branch**: B. Tech: CSE

Course Outcome	Total Marks	Marks Secured	Signature of Evaluator
CO2	40		

Section- A Answer All Questions

1. Explain bit stuffing. [2marks][CO2][L1]
2. Explain the mechanism of stop-and-wait ARQ. [2marks][CO2][L2]
3. What is piggybacking? [2marks][CO2][L1]
4. What is Hidden station Problem? [2marks][CO2][L1]

Section-B

Answer All Questions

1. What do you mean by multiple accesses? Explain CSMA/CD. [6marks][CO2][L1]
2. Differentiate between circuit switching and packet switching [6marks][CO2][L2]

Section-C
Answer All Questions

1. Explain the flow control mechanism. [10 marks][CO2][L2]
2. Explain FDMA, CDMA and TDMA. [10 marks][CO2][L3]

Additional Questions

1. The message 11001001 is to be transmitted using the CRC polynomial $x^3 + 1$ to protect it from errors. The message that should be transmitted is:_____
2. Suppose we are transmitting frames between two nodes using Stop-and-Wait protocol. The frame size is 3000 bits. The transmission rate of the channel is 2000 bps (bits/ second) and the propagation delay between the two nodes is 100 milliseconds. Assume that the processing times at the source and destination are negligible. Also, assume that the size of the acknowledgement packet is negligible. Which ONE of the following most accurately gives the channel utilization for the above scenario in percentage?