GUJARAT TECHNOLOGICAL UNIVERSITY M. E. - SEMESTER – I • EXAMINATION – WINTER • 2014

Date: 05-12-2014

Subject code: 710309N

Subject Name: Industrial Data Communication Time: 10:30 am - 01:00 pm **Total Marks: 70 Instructions:** 1. Attempt all questions. 2. Make suitable assumptions wherever necessary. 3. Figures to the right indicate full marks. (a) Explain TCP/IP reference model. **Q.1** 10 Explain framing with respect to data link layer. 04 **Q.2** Differentiate between circuit switching and packet switching for public switched **07** (a) telephone network. Explain the concept of petri-net model. 07 **(b)** Explain frequency division multiplexing in detail. **(b) 07** Explain the frame structure of 802.16 protocol. **Q.3** 07 Explain Digital Advanced Mobile Phone System in detail. 07 OR Q.3 07 (a) Describe distance vector routing. Explain third generation Mobile phone in detail. 07 **Q.4** (a) Describe link state routing. 07 Explain the structure of the telephone system in detail. **(b)** 07 **Q.4** Explain stop and wait protocol for noisy channel. 07 (a) Mention the classification of Ethernet. Explain fast Ethernet in detail. **Q.4 (b)** 07 Q.5 Explain the construction of fibre optics cables and construction of fibre optics 14 network in detail. OR **Q.5** Explain 1 bit sliding window protocol. 14
