

Seat No.: \_\_\_\_\_

Enrolment No. \_\_\_\_\_

**GUJARAT TECHNOLOGICAL UNIVERSITY**  
**BE SEM-VII Examination-Nov/Dec.-2011**

**Subject code: 172405**

**Date: 29/11/2011**

**Subject Name: Industrial Communication systems**

**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.

**Q.1** (a) Write Short notes on Communication System. **07**  
(b) What is Modulation? Derive Modulation Index. **07**

**Q.2** (a) Define noise. Explain noise in details. **07**  
(b) Compare Amplitude Modulation (AM) & Frequency Modulation (FM). **07**

**OR**

(b) Differentiate between PSK & PWM **07**

**Q.3** (a) Explain Communication Modes. **07**  
(b) What is serial data communication? Explain serial data communication interface standards. **07**

**OR**

**Q.3** (a) Write short notes on UART **07**  
(b) What is an USB?. Explain with suitable Example. **07**

**Q.4** (a) Explain Fiber Optic Cable with its working principles. **07**  
(b) What is the Protocol?. Explain TCP/IP. **07**

**OR**

**Q.4** (a) Explain source of electrical noise **07**  
(b) Explain HART. **07**

**Q.5** (a) Explain Various Network Components. **07**  
(b) Explain RS 485 Interface Standards. **07**

**OR**

**Q.5** (a) Explain Synchronous and asynchronous transmission. **07**  
(b) Explain Ethernet **07**

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