

GUJARAT TECHNOLOGICAL UNIVERSITY**DIPLOMA ENGG.- IIIrd SEMESTER-EXAMINATION – MAY/JUNE- 2012****Subject code: 331701****Date: 30/05/2012****Subject Name: Transducer and Telemetry****Time: 02:30 pm – 05:00 pm****Total Marks: 70****Instructions:**

1. Attempt all questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.
4. English version is considered to be Authentic

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|-------------|---|-----------|
| Q.1 | (a) Differentiate active and passive transducer with definition and examples. | 07 |
| | (b) Define resistive transducer. Explain any one. | 07 |
| Q.2 | (a) Explain working principle of piezo electric transducer with application. | 07 |
| | (b) Write short note on radio active transducers. | 07 |
| | OR | |
| | (b) Write short note on strain gauge transducers. | 07 |
| Q.3 | (a) State the types of photo electrical transducer. explain working principle of any one with application | 07 |
| | (b) Explain semiconductor pressure sensor. | 07 |
| | OR | |
| Q.3 | (a) Draw and explain the blok diagram of general telemetry system. | 07 |
| | (b) Compare pneumatic verses electronic telemetry systems | 07 |
| Q.4 | (a) Explain the working principle and application of fiberscope. | 07 |
| | (b) Explain the working principle and application of Annunciator. | 07 |
| | OR | |
| Q. 4 | (a) Draw and explain the positioning telemetry | 07 |
| | (b) Define modulation technique.State the types of modulation. Explain any one . | 07 |
| Q.5 | (a) Write short note on “intrinsic safety” | 07 |
| | (b) Explain working of I to V convertor using diagram. | 07 |
| | OR | |
| Q.5 | (a) Explain hall effect transducer and its application | 07 |
| | (b) State the types of temperature transducers.Explain any one in detail. | 07 |
