

GUJARAT TECHNOLOGICAL UNIVERSITY**Diploma Engineering - SEMESTER-VI • EXAMINATION – SUMMER • 2014****Subject Code: 362301****Date: 22-05-2014****Subject Name: Instrumentation, Maintenance and
Safety in Plastics Engineering****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.
4. English version is considered to be Authentic.

- Q.1** (a) Draw block diagram of close loop control system and explain each elements of it. **07**
(b) Define wear. Explain various wear reduction techniques in detail. **07**
- Q.2** (a) Explain construction and working of LVDT. Also discuss its roll in pressure measurement. **07**
(b) Draw sketch of thermocouple. Explain its construction, working, advantages and disadvantages. **07**
- OR
- (b) Explain PLC systems in detail. **07**
- Q.3** (a) State and explain various types of errors in instrument. **07**
(b) List various types of maintenances. Explain any two in detail. **07**
- OR
- Q.3** (a) What are the responsibilities of management in promoting safety? **07**
(b) State various types of lubricants. Explain any two in detail **07**
- Q.4** (a) Define Accident. Discuss the methods of prevention of accidents. **07**
(b) Explain maintenance procedure for an extruder. **07**
- OR
- Q. 4** (a) Draw and explain block diagram of instrumentation system. **07**
(b) Define servomechanism and regulator. Explain any one with example. **07**
- Q.5** (a) What is corrosion? State various types of corrosion and explain any two. **07**
(b) Explain construction and working of D.C. servo motor. **07**
- OR
- Q.5** (a) Explain maintenance procedure for hydraulic and pneumatic systems. **07**
(b) Define transducer. Give classification of transducers. **07**
