

GUJARAT TECHNOLOGICAL UNIVERSITY**Diploma Engineering - SEMESTER-IV • EXAMINATION – SUMMER • 2014****Subject Code: 3342305****Date: 05-06-2014****Subject Name: Process Instrumentation and Maintenance****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) Define the following terms related to instrumentation: **07**
precision, accuracy, resolution, dead zone, backlash, calibration, drift
(b) List and explain various personal protective equipments. **07**
- Q.2** (a) Explain resistance thermometer with sketch, construction and working. **07**
(b) List various pressure measurement instruments. Explain any one in detail. **07**
OR
(b) Explain various lubrication methods with examples. **07**
- Q.3** (a) Explain open loop control system with examples. Also state its advantages. **07**
(b) Explain types of wear along with causes of wear. **07**
OR
- Q.3** (a) Write short note on “ PLC systems” **07**
(b) State various types of maintenance. Explain any one in detail. **07**
- Q.4** (a) Explain A.C servo motor with sketch. **07**
(b) Write maintenance procedure for mould and dies. **07**
OR
- Q. 4** (a) State various types of lubricants. Explain any one in detail. **07**
(b) Discuss various corrosion prevention techniques. **07**
- Q.5** (a) Explain various safety measures in plastic processing plant. **07**
(b) Define regulators and explain it with example. **07**
OR
- Q.5** (a) Draw and explain the instrumentation system with block diagram. **07**
(b) Write the maintenance procedure for an injection moulding machine. **07**
