

GUJARAT TECHNOLOGICAL UNIVERSITY**BE SEM-VIII Examination May 2012****Subject code: 182403****Subject Name: Industrial Automation (D.E.-II)****Date: 08/05/2012****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) Draw plc system layout & explain the functionality of interconnected parts. **07**
(b) Discuss about O/P group register scheme & about power ladder diagram. **07**

- Q.2** (a) Explain about following: P.L.C. SCAN, AC/DC I/P&O/P Circuit. **07**
(b) Explain about current trends in computer control of process plants. **07**

OR

- (b) Explain about plc skip & master control relay functions & its application. **07**

- Q.3** (a) Explain about PLC ARITHMETIC FUNCTIONS. **07**
(b) Explain about ladder diagram & Boolean mnemonics programming language. **07**

OR

- Q.3** (a) Explain about plc counter functions. **07**
(b) Explain about industrial process timing application of plc. **07**

- Q.4** (a) Explain about functional blocks & English statement programming language. **07**
(b) Analyze time-delay on function of a plc using an example. **07**

OR

- Q.4** (a) Explain about dcs as an automation tool to support enterprise resources planning. (E.R.P) **07**
(b) Application development & industrial application for pharmaceuticals. **07**

- Q.5** (a) Explain plc add function. How plc handles overflow of numbers? **07**
(b) Explain about DCS, its functions, advantages & limitations. **07**

OR

- Q.5** (a) Explain about application development & industrial application for power. **07**
(b) Explain about application development & industrial application for automobile. **07**
