SUBJECT CODE NO:- P-117
FACULTY OF ENGINEERING AND TECHNOLOGY
B.E.(EEP/EEE/EE) Examination May/June 2017
Industrial Automation
(Revised)

[Time: Three Hours]   [Max.Marks:80]

Please check whether you have got the right question paper.

N.B   1)   Q. No. 1 & Q. No. 5 are compulsory.
             2)   Solve any two questions from remaining questions in each section A & B.

Section A

Q.1	Solve any two	10
	a) Difference between Actuator and final control element & compare both.	
	b) Pneumatic & hydraulic actuator.	
	c) What is automation? What are its advantages?	
	d) PLC interface.	

Q.2	a) How to automate one operation & multiple operations in industries?	08
	b) How automation is categories as manually operated, semi – automatic & fully automatic?	07

Q.3	a) What are the serial standards used for PLC? Explain all.	08
	b) What are techno – commercial requirement & feasibility that decides level of automation?	07

Q.4	a) Explain analog PLC operation.	08
	b) What are the technologies used for automation? Explain one in brief.	07

Section B

Q.5	Solve any two	10
	a) Discrete & analog control using RTU.	
	b) Functions of SCADA system.	
	c) Compare between DCS & traditional control system.	
	d) Any one application of DCS in detail.	

Q.6	a) Draw & explain basic SCADA hardware configuration.	08
	b) What is the function of data collection equipment? Draw & explain data logger.	07

Q.7	a) How communication takes place for transmission & distribution station? Draw & explain.	08
	b) What are the protective, control & monitoring function in transmission & distribution station with SCADA system?	07

Q.8	a) What is the role of field bus in DCS? Explain	08
	b) How multiplexing & remote sensing is achieved in DCS? Explain.	07

2017