

Code: 9A10701

B.Tech IV Year I Semester (R09) Supplementary Examinations June 2017

AUTOMATION OF INDUSTRIAL PROCESSES

(Electronics & Instrumentation Engineering)

Time: 3 hours

Max. Marks: 70

Answer any FIVE questions
All questions carry equal marks

- 1 Explain the role of computers in the control of industrial process (plants).
- 2 (a) Describe the process control requirements of computer.
(b) Explain briefly about smart sensors and field bus.
- 3 Explain the following in detail:
(a) Controller design.
(b) Controller tuning.
- 4 Explain the design of controllers based on discrete time model.
- 5 Explain the block diagram and algorithm of feed forward controller in detail.
- 6 Explain briefly about adaptive control, its schemes and techniques.
- 7 Write short notes on the following:
(a) Inferential control.
(b) Intelligent control.
- 8 Explain briefly architecture of PLC with neat sketch.
