

R07**Code: R7311306****B.Tech III Year I Semester (R07) Supplementary Examinations December 2015****PROCESS CONTROL**

(Electronics and Control Engineering)
(For 2008 regular admitted batch only)

Time: 3 hours

Max Marks: 80

Answer any FIVE questions
All questions carry equal marks

- 1 (a) What are the different elements of process control? Explain with the help of a block diagram.
(b) Write the mathematical model of a liquid process.
- 2 (a) Compare and contrast P, I, and D control modes.
(b) Discuss the Ziegler Nichols method of tuning controllers.
- 3 (a) Write about the different measuring elements for temperature.
(b) Discuss the first order response to measuring elements.
- 4 (a) Write about the displacement type pneumatic controller.
(b) Discuss the theory of automatic controller circuit.
- 5 (a) Explain the ratio control system with an example.
(b) Write about different final control elements.
- 6 (a) Write the dynamics and control of steam heat exchangers.
(b) Explain the drum level control in a steam plant with the help of a schematic diagram.
- 7 (a) Discuss the stability of tubular reactors.
(b) Write about composition control.
- 8 (a) Write about feedback pressure control methods.
(b) Discuss relative gain analysis.
