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[Total No. of Printed Pages : 2

Roll No

EI/IC-702 (GS)**B.E. VII Semester**

Examination, December 2017

Grading System (GS)**Process Control**

Time : Three Hours

Maximum Marks : 70

- Note:** i) Attempt any five questions.
 ii) All questions carry equal marks.
 iii) Assume suitable data wherever necessary.

1. a) Discuss incentives of process control. 7
 b) Explain mathematical modelling of electrical system. 7
2. a) Discuss the modelling of heat exchanger. 7
 b) Discuss the modelling of CSTR. 7
3. a) Discuss characteristics of on-off and proportional control modes. 7
 b) Discuss and compare PI, PD and PID control modes. 7
4. Discuss the Dynamic behaviour of feedback control processes. 14
5. a) Explain Realization of different control modes like P, I and D in electrical controllers. 7
 b) Realize the P, I and D control modes in Hydraulic controller. 7

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6. a) Discuss Pneumatic actuators. 7
 b) Discuss E-P converters. 7
7. a) Discuss cascade control system. 7
 b) Discuss feedforward control system. 7
8. Write short notes on any two: 14
 a) Split control
 b) Pinch valves
 c) IATE criterion

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