

GUJARAT TECHNOLOGICAL UNIVERSITY**BE SEM-VIII Examination May 2012****Subject code: 181803****Subject Name: Marine Control Engineering and Automation****Date: 10/05/2012****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) What do you mean by “Regulators and Servomechanism?” **07**
(b) Explain open loop and closed loop feedback control system. **07**
- Q.2** (a) Explain Pulse and Impulse. **07**
(b) Write a short note on Error Detector. **07**
- OR**
- (b) Explain the Technique for improving the general performance of servomechanism. **07**
- Q.3** (a) Explain Automatic Closed loop process. **07**
(b) What do you mean by Practical pneumatic controllers? **07**
- OR**
- Q.3** (a) What is the Dynamic characteristic of controllers? **07**
(b) Explain in detail Analog computers. **07**
- Q.4** (a) Write a short note on Hybrid Computers. **07**
(b) Explain working principle of the Nozzle Flapper used in Pneumatic Control system. **07**
- OR**
- Q.4** (a) Write a short note on Motion Balancing System used in Pneumatic Control system. **07**
(b) Explain any two actuators in details. **07**
- Q.5** (a) What is the importance of Control Engineering in Marine Engineering? **07**
(b) Explain the pressure control system with application. **07**
- OR**
- Q.5** (a) Define: Feed water control system. **07**
(b) Discuss different types of cooling control system used in Marine Internal Combustion Engine. **07**
