GANPAT UNIVERSITY

B. Tech. Semester: VIII- Marine Engineering

Regular Examination April – June 2017

2MR803 MARINE AUTOMATION AND CONTROL

Time: 3 Hours / As per Scheme
Total Marks: 70

Instruction:
1. Attempt all Questions.
2. Assume suitable data if necessary.
3. Figure to the right indicates full Marks.
4. Start new Question on New Page.

SECTION I

Q. 1. Explain and elaborate the open loop and close loop system in automation control system.   12

OR ·

Q.1. what is cascade control system and what are its uses on ships.   12

Q.2. AVR of generator is given feedback from its own output Voltage. Explain with Reference to feedback system.   11

OR

Q. 2. Explain three terms proportional, integral and Derivative controls for automation purpose. Draw a diagram of PID control.   11

Q. 3. Elaborate and explain pressure measurement in ships. Define the unit of pressure. 12

SECTION II

Q. 4. What is temperature measurement device? Explain in briefs.   12

OR

Q. 4. Draw a schematic diagram of Direct on line starter and explain its working principle. 12

Q. 5. Explain the function of marine boiler automation combustion control system.   11

OR

Q. 5. Define the term Programmable logic controls (PLC). What are the uses of PLCs?   11

Q. 6. Define Boolean logic system with the help of De-morgans theorem.   12

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