

**Q.P. Code : 02063**

**MARINE ENGINEERING & CONTROL SYSTEM – III**

**[Time: 2<sup>1</sup>/<sub>2</sub> Hours]**

**[ Marks:75]**

Please check whether you have got the right question paper.

**N.B:** All Questions Are Compulsory. Marks Are Indicated Against Each Question.

- Q.1 a. What do you understand by the term sensor and transmitter? **5**  
b. Sketch and describe working of a diaphragm valve used in a continuous control system to control the flow of liquid. **10**

**OR**

- a. What is the automatic process control system? **5**  
b. Explain with the help of sketch "Proportional Control System". **10**

- Q.2 a. Explain working of centrifugal brake of life boat winch. **5**  
b. What is meant by data logging? Describe a data logging system suitable for an automated engine room. **10**

**OR**

- a. Explain the checks to be carried out before starting a diesel Engine. **5**  
b. What do you mean by term survey? Explain the types of survey and importance of the same. **10**

- Q.3 a. Sketch and describe a smoke detector. **5**  
b. Sketch and describe a fixed foam installation as fitted on an oil tanker. **10**

**OR**

- a. Sketch and describe a Heat detector. **5**  
b. Sketch and describe "Bulk chemical powder" fire extinguishing system for LPG Carriers? **10**

- Q.4 Write short notes on following.  
a. Feed back in control system **5**  
b. Deck seal unit **5**  
c. Smoke helmet **5**

**OR**

Write short notes on following?

- a. Open loop control system **5**  
b. Classification Society **5**  
c. Fire suit **5**

**(Turn Over)**

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Q.5 Write short notes on following.

- |                             |   |
|-----------------------------|---|
| a. Transmitter and Actuator | 5 |
| b. Bow Thruster             | 5 |
| c. Breathing Apparatus      | 5 |

**OR**

Write short notes on following?

- |                            |   |
|----------------------------|---|
| a. Remote level gauge      | 5 |
| b. Ballasting operation    | 5 |
| c. O <sub>2</sub> Analyzer | 5 |