Q.P. Code : 02064

MARINE ENGINEERING & CONTROL SYSTEM – III

[Time: $2\frac{1}{2}$ 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 are the differences between a transducer and a transmitter? **5**

b. Explain with the help of a sketch the working principle of a Bourdon's pressure gauge. **10**

OR

a. Explain the advantages and disadvantages of electrical and pneumatic system. **5**

b. Explain with the help of sketch proportional control system. **10**

Q.2 a. State the checks that you will carry out before starting the Life Boat engine. **5**

b. What information has to be exchanged between ship and terminal & terminal and Ship before loading? **10**

OR

a. Write a short note on butterfly valve. **5**

b. What is the limitation of classification society? Differentiate between statutory and classification survey. **10**

Q.3 a. Sketch and describe a Fixed Foam Installation as fitted on an oil tanker for fighting fire on deck. **15**

OR

a. Enumerate the three types of fire detectors used in a fire alarm System. Explain with sketch working principle of any one of the fire detectors above. **15**

Q.4 a. Explain the importance of boat and fire drills conducted on board a vessel. **5**

b. Sketch and describe working of Bow thruster of a ship. **10**

OR

a. How do infrared temperature sensors work? **5**

b. Sketch and describe working principle of explosive meter. **10**

Q.5 a. What are the checks to be carried out while starting any diesel Engine? **5**

b. Sketch and describe Flame type fire detector **5**

c. What are the different methods of starting life boat engine? **5**

OR

Write short notes on

a. Draft gauge **5**

b. Initial survey and intermediate survey **5**

c. Fire suit **5**