

GUJARAT TECHNOLOGICAL UNIVERSITY**BE- IVth SEMESTER-EXAMINATION – MAY/JUNE- 2012****Subject code: 141801****Date: 23/05/2012****Subject Name: Fundamental of ship structure****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) Give general classification of ships. **07**
(b) Explain following stresses produced in ship structure **07**
(1) Vertical shear
(2) Longitudinal bending stresses
(3) Transverse stresses
- Q.2** (a) What are the advantages of employing welding over riveted construction. **07**
Give classification of electric arc welding processes.
(b) Differentiate between TIG welding and MIG welding. **07**
- OR**
- (b) What is the basic principal of gas cutting? Explain in brief plasma arc cutting. **07**
- Q.3** (a) Differentiate double bottom structure from single bottom structure. **07**
(b) Explain following terms with diagram **07**
(1) Mid ship structure
(2) keel
- OR**
- Q.3** (a) Explain the construction of watertight bulkheads. Also explain in brief testing of watertight bulkheads **07**
(b) Explain following terms with diagrams **07**
(1) Deep tanks
(2) Shaft tunnel
- Q.4** (a) What is the importance of Llyods register classification symbol. **07**
(b) Explain ship surveys during ship construction. **07**
- OR**
- Q.4** (a) What is the function of rudder ? Explain in brief types of rudders. **07**
(b) Explain in brief Pedestal bearing. **07**
- Q.5** (a) Explain radiography method used in ship testing. **07**
(b) What is the basic purpose of providing Bulbous bow ? How it works ? **07**
- OR**
- Q.5** (a) Explain X- ray testing for ship construction. **07**
(b) Explain submerged arc welding process with working principle , advantages and disadvantages. **07**
