No. of Printed Pages: 3 BNA-051 **B.Sc.** (NAUTICAL SCIENCE) 9 30 **Term-End Examination** 2 June, 2010 **BNA-051: SHIP MANOEUVRING AND**

FUTURE ISSUES

Time: 3 hours

Maximum Marks: 70

P.T.O.

Note: Attempt any four questions from Section-A and any three questions from Section-B. All questions carry equal marks.

SECTION-A

MANOEUVRING AND INSURANCE

- In a turning circle, define the following with 1. suitable sketch:
 - Advance.
 - Drift angle.
 - Tactical diameter.
- What are the advantages and disadvantages of 2. motor (diesel) ships over steam turbines?
- Describe the immediate action that should be 3. taken when a person is seen falling overboard.

- 4. What is Girding of the tug? How is it avoided?
- 5. In Marine Insurance, what do you understand by Risk, Hazard and Peril?
- 6. List 10 documents that a Vetting inspector would like to see during inspection.

SECTION-B

FUTURE ISSUES

- 7. What records are required to be maintained with respect to ballast water on board?
- **8.** As per Annex VI of Marpol 73/78, what specific information is required to be provided in bunker delivery notes?
- 9. How is SOx pollution controlled?
 - (a) Outside emission control area.
 - (b) Inside emission control area.
- **10.** What are the objectives of providing a place of refuge?