

**B.Sc. (NAUTICAL SCIENCE)**

**Term-End Examination**

**June, 2014**

**BNA-051 : SHIP MANOEUVRING AND  
FUTURE ISSUES**

00995

*Time : 3 hours*

*Maximum Marks : 70*

*Note : Attempt any three questions from Section- I and any four questions from Section- II. All questions carry equal marks.*

**SECTION - I**

1. List five physical characteristics and five environmental factors that affect manoeuvring capabilities of the ship. 10
2. What is pivot point ? How does the pivot point move when a force is applied ? 10
3. What are the indications that the ship is passing through shallow waters ? What measures should be taken to reduce shallow water effects ? 10
4. List ten items the vetting inspector would like to check during inspection with regards to safety on board. 10

**SECTION - II**

5. What is the purpose of a Ballast Water Management Plan and what are its contents ? 10
6. What are the factors affecting air pollution ? Describe in brief. 10

7. What are volatile organic compounds ? How do they cause pollution ? 10
  8. What do you understand by the term “renewable energy” ? Explain with the help of suitable examples. 10
  9. What are the requirements for double hull tankers ? Also explain the advantages of double hull tankers. 10
  10. What are the objectives of providing a place of refuge ? 10
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