

B.Sc. (NAUTICAL SCIENCE)

Term-End Examination

December, 2010

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

Time : 3 Hours

Maximum Marks : 70

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

1. What are the contents of "Manoeuvring Booklet" ?
2. What are the advantages of controllable pitch propeller as compared to fixed pitch propeller ?
3. Two Tugs are positioned one forward and the other at 'AFT' stations. If the ship gives a kick astern which of the Tugs would have more effect and why ?
4. What are the indications that the ship is navigating in shallow water ?
5. What are the requirements of emergency towing arrangements fitted on a tanker as per solas ?
6. What risks are covered by P and I Insurance ?

SECTION-B

FUTURE ISSUES

7. As per Annex IV of Marpol 73/78, what is the criteria for discharge of sewage into sea ?
 8. With Reference to Annex VI of marpol 73/78, what are the following :
 - (a) Volatile Organic Compounds (VOCs)
 - (b) Ozone Depleting Substances (ODS)
 9. What measures have been initiated to reduce fuel oil pollution ?
 10. What are the objectives of Green Passport document?
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