

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

**Term-End Examination**

**June, 2012**

**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. The answer shall be in your language.*

**SECTION - A**

1. (a) List 5 Environmental factors affecting mandeuvring capabilities of a ship. **2x5=10**  
(b) On a turning circle diagram, show tactical diameter and drift angle.
2. State factors to be taken into consideration when choosing anchorage position for the ship. **10**
3. What do you understand by ' Bank Suction' and "Bank Cushion" Effect ? What hazards are posed by these ? **10**
4. Name 3 types of Tugs. What are the factors affecting performance of Tugs ? **10**
5. What are the various types of marine policies ? **10**
6. Name five common deficiencies during vetting inspections that could be easily rectified. **10**

**SECTION - B**  
**FUTURE ISSUES**

7. State 10 safety precautions which must be provided in the approved "Ballast water exchange at sea " plan. 10
  
  8. What are seca's ? Name the seca's in force at present. 10
  
  9. What is a bunker delivery note ? What are the requirements for the same ? 10
  
  10. What are IMO guidelines with respect to recycling of ships ? 10
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