

**INDIAN MARITIME UNIVERSITY**  
(A Central University, Government of India)

**End Semester Examination December 2017**

**Programme Name:** B.Sc (Nautical Science)

**Semester:** V

**Subject Name:** Marine Environment Protection -I

**Subject Code:** UG21T2508

**Date:** 20.12.2017

**Maximum Marks:** 70

**Time:** 3 Hours

**Pass Marks:** 35

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**PART – A**

**All questions are compulsory**

**(5x2 =10 Marks)**

1. a) Explain OPA – 90 Legislation
- b) Explain Special Area
- c) Explain Particularly Sensitive Sea Area (PSSA)
- d) Explain SMPEP for Noxious Liquid Substances and Equipments
- e) Explain Port State Control (PSC)

**PART – B**

**Answer any Five questions from the following eight questions**

**(5 x 12 = 60 Marks)**

2. (a) Explain the brief history of MARPOL 73/78 Convention
- (b) What is an IOPP Certificate and what is its validity?
3. (a) List the salient features of National Pollutant Discharge Elimination System (NPDES) of the US Clean Water Act.
- (b) List out the various Annexes of MARPOL 73/78, as amended
4. (a) What records are maintained in Oil Record Book Part I?
- (b) List out the special areas for Annex I of MARPOL 73/78.
5. (a) Explain the criteria for discharging oily water mixture from Engine Room/ Machinery space in outside special area and inside special area.
- (b) What records are maintained in Oil Record Book Part II?
6. (a) Explain Segregated Ballast Tank
- (b) Explain Slop Tank
7. (a) Explain ODMCS
- (b) Explain Crude Oil Washing (COW)
8. (a) What are the Pollution Categories into which Noxious Liquid substances are classified?

- (b) Explain the following for a Chemical Tanker
  - (i) Procedure & Arrangement Manual.
  - (ii) Certificates Required.
- 9. (a) Write short notes on Packing, Marking, Labelling and Documentation of Harmful Substances carried in Packaged Form as per MARPOL Annex III.
- (b) List the equipments that should be available in SOPEP locker as per MARPOL Annex I.

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