

INDIAN MARITIME UNIVERSITY
(A Central University, Government of India)
END SEMESTER EXAMINATION Dec 2019
B.Sc. (Nautical Science)
Semester: VI
UG21T3606 Marine Environmental Protection

Date: 11-01-2020

Time: **3 hrs**

Maximum Marks: **70**

Pass Marks : **35**

Note: Answer any 7 Questions

- Q1. a) Explain the history of MARPOL 73/78 Convention in brief (5 Marks)
- b) Explain the criteria for discharge of oil from machinery spaces of a ship as per MARPOL Annex I (5 Marks)
- Q2. Explain the criteria for discharge of oil from cargo spaces of an oil Tanker as per MARPOL Annex I (10 Marks)
- Q3. Explain the various pollution categories into which Noxious Liquid substances are classified (10 Marks)
- Q4. a) Explain the criteria for discharge of Sewage from ships as per MARPOL Annex IV (5 Marks)
- b) Explain the criteria for discharge of Garbage from ships as per MARPOL Annex V (5 Marks)
- Q5. Explain the criteria for Sox & NOx emissions from ships as per MARPOL Annex VI. (10 Marks)
- Q6. a) Explain the IMO resolution regarding Ballast Water Management. (5 Marks)
- b) Explain the IMO regulation for Anti Fouling Paints. (5 Marks)
- Q7. a) Describe Sewage Treatment Plant. (5 Marks)
- b) Explain National Response Centre with respect to pollution prevention. (5 Marks)
- Q8. a) Explain the IMO guidelines on Ship Recycling. (5 Marks)
- b) Explain National Pollutant Discharge Elimination System (NPDES) of US Clean Water Act (5 Marks)
- Q9. Fill in the blanks (10 Marks)
- a) MARPOL Annex I mentions the Regulations for the Prevention of Pollution by _____ from Ships. (1 Mark)
- b) MARPOL Annex II mentions the Regulations for the Control of Pollution by _____ Liquid Substances in Bulk from Ships. (1 Mark)

- c) MARPOL Annex III mentions the Regulations for the Prevention of Pollution by _____ Substances in Packaged Form from Ships. (1Mark)
- d) MARPOL Annex IV mentions the Regulations for the Prevention of Pollution by _____ from Ships (1 Mark)
- e) MARPOL Annex V mentions the Regulations for the Prevention of Pollution by _____ from Ships (1 Mark)
- f) MARPOL Annex VI mentions the Regulations for the Prevention of _____ Pollution from Ships (1 Mark)
- g) The abbreviation IOPP Certificate stands for_____ (1 Mark)
- h) The abbreviation PSSA stands for_____ (1 Mark)
- i) The abbreviation IMO stands for_____ (1 Mark)
- j) The abbreviation VRP stands for_____ (1 Mark)
