

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

May/Jun 2018-END SEMESTER EXAMINATION

B.Sc (Nautical Science)

Semester: VI

Marine Environmental Protection Paper II-(UG21T2608)

Date: 20-06-2018

Time: **3 hrs**

Maximum Marks: **70**

Pass Marks: **35**

Note: Question No.1 is compulsory.

Answer any 6 Questions from remaining 8 Questions (each of 10 marks).

Scientific Calculator is permitted if required.

1. Fill in the blanks

a) MARPOL Annex IV mentions the Regulations for the _____ of Pollution by _____ from Ships (2 Marks)

b) MARPOL Annex V mentions the Regulations for the _____ of Pollution by _____ from Ships (2 Marks)

c) MARPOL Annex VI mentions the Regulations for the _____ of _____ Pollution from Ships (2 Marks)

d) The abbreviation OPA 90 stands for _____ (2 Marks)

e) The abbreviation NRC stands for _____ (2 Marks)

2. a) Explain the criteria for discharge of Sewage from ships as per MARPOL Annex IV (5 Marks)

b) What is ISPP Certificate & its validity (5 marks)

3. a) Explain the criteria for discharge of Garbage from ships as per MARPOL Annex V (5 Marks)

b) Explain Garbage Management Plan. (5 Marks)

4. a) Explain the criteria for NO_x emissions from ships as per MARPOL Annex VI. (5 Marks)

- b) Explain the criteria for Sox emissions from ships as per MARPOL Annex VI. (5 Marks)
5. a) What is IAPP Certificate and its validity. (5 Marks)
- b) List the Sulphur Emission Control Areas (SECA) as per MARPOL Annex VI . (5 Marks)
6. a) Explain the operating limits for a shipboard Incinerator. (5 Marks)
- b) Explain the information contained in "Bunker Delivery Note". (5 Marks)
7. a) Explain the IMO resolution regarding Ballast Water Management . (5 Marks)
- b) Explain a Ballast Water Treatment system. (5 Marks)
8. a) Explain the IMO regulation for Anti Fouling Paints. (5 Marks)
- b) Explain a Sewage Treatment Plant. (5 Marks)
9. a) Explain Salient points of FUND Convention. (5 Marks)
- b) Explain the following
- (i) CLC (2½ Marks)
 - (ii) HNS Convention. (2½ Marks)
