

INDIAN MARITIME UNIVERSITY
(A Central University Government of India)
END SEMESTER EXAMINATIONS-JUNE/JULY 2019
B.SC NAUTICAL SCIENCE
SEMESTER-VI
MARINE ENVIRONMENTAL PROTECTION PAPER-II
(UG21T2608)

Date: 15-07-2019

Maximum Marks: 70

Duration: 3 hrs.

Pass Marks: 35

Note: Question No.1 is compulsory.

Answer any 7 Questions from remaining 9 Questions (each of 10 marks).

Scientific Calculator is permitted if required.

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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) What is ISPP Certificate & its validity? Briefly describe. (5 Marks)
- b) Explain the criteria for discharge of Sewage from ships as per MARPOL Annex IV. (5 marks)
3. a) Explain Garbage Management Plan. (5 Marks)
- b) Write down the criteria for discharge of Garbage from ships as per MARPOL Annex V. (5 Marks)
4. a) Explain the criteria for Sox emissions from ships as per MARPOL Annex VI. (5 Marks)
- b) List down the criteria for NOx emissions from ships as per MARPOL Annex VI. (5 Marks)
5. a) List the Sulphur Emission Control Areas (SECA) as per MARPOL Annex VI (5 Marks)

- b) What is IAPP Certificate and what is its validity ? (5 Marks)
6. a) Write down the information contained in "Bunker Delivery Note" (5 Marks)
- b) Explain the operating limits for a shipboard Incinerator. (5 Marks)
7. a) Explain a Ballast Water Treatment system. (5 Marks)
- b) Explain the IMO resolution regarding Ballast Water Management. (5 Marks)
8. a) Describe a Sewage Treatment Plant. (5 Marks)
- b) Explain the IMO regulation for Anti Fouling Paints. (5 Marks)
9. a) What is PSC ? Explain (5 Marks)
- b) Explain the following
- (i) CLC (2½ Marks)
 - (ii) HNS (2½ Marks)