

INDIAN MARITIME UNIVERSITY

(A Central University, Government of India)

End Semester Examination Dec 2019/Jan 2020

Post Graduate Diploma in Marine Engineering (PGDME)

Semester-II

PD11T3209 – ISO/ISM/ISPS, MARPOL, Marine Pollution and Watch-Keeping

Date: 16.12.2019

Max Marks: 100

Time: 3 Hours

Pass Marks: 50

PART – A

(Compulsory Questions)

1. **Answer all questions. Questions carry equal mark of 5 each** (30)
- (a) Briefly explain three security levels as per ISPS code
 - (b) List out all MARPOL Annexes and when they were enforced.
 - (c) What are the mandatory provisions for the ship to be classed as UMS.
 - (d) What is STCW and explain the purpose of STCW.
 - (e) What is the purpose of watch keeping
 - (f) Explain the organisational structure onboard a merchant ship with the help of a block diagram

PART – B

(Answer any FIVE)

- 2. What is the purpose of ISO? Explain the purpose of customer feedback. State and explain the Quality Management principles. (3+5+6)
- 3. Explain the role MUI, INSA and Classification Society. (6+4+4)
- 4. What is ISM code and why is it necessary? What is the role of DPA. What is D.O.C and S.M.C? What happens if they expire or withdrawn. (4+4+4+2)
- 5. Describe in details the pollutants addressed in MARPOL Annex VI. Also indicate the source detailing how they are forming during ship operation. Briefly explain how to control them. (14)
- 6. Describe the procedures to be adopted before starting bunker, during bunker and after bunkering a ship. (6+4+4)
- 7. What is Engine room resource management? Explain all the requirements of ERM.(14)
- 8. a. Describe the procedure for starting an auxiliary engine and taking it on load. (10)
b. What are the safeties provided on the Generator circuit breaker to prevent damages to engine and alternator? (4)
