Indian Maritime University

(A Central University, Govt of India)

End Semester Examinations – December 2024

Programme Name: B Tech (ME)

Semester: VII

Subject Code: UG11T4703

Subject Name: Management Principles of Ship Operation

Date: 17.12.2024	Max Marks: 70
Duration: 03 Hrs	Pass Marks: 35

General Instructions

i. All Sections (A, B & C) are to be attempted.

ii. Options, if any, are specified in respective section.

Section A

Choose the correct option and write in the answer sheet. [1 x 10 = 10 marks]

1. Which of the following is a key principle of Engine Room Resource Management (ERM) in ensuring safe and efficient operations?

A. Effective communication among all team members
B. Strict adherence to hierarchy regardless of the situation
C. Limiting decision-making to the chief engineer only
D. Focusing solely on the technical aspects of the engine room

2. Good team-work comprises following quality

A.Hostile working B.Aggressive working C. Competition D.Cooperation among members

3. Which of the following must be included in the Safety Management Manual as per the ISM Code?

A. A list of port authorities
B. The ship's financial records
C. Emergency procedures for shipboard operations
D. The vessel's cargo stowage plan

4. What is the primary purpose of the STCW Code?

A. To regulate the salary structure of seafarers
B. To establish minimum training, certification, and watchkeeping standards for seafarers internationally

C. To standardize shipbuilding regulations
D. To enforce environmental protection laws

5. When managing resources at the management level in the engine room, what should be prioritized to ensure safe operation?

A. Strict adherence to hierarchical decisions regardless of situation
B. Limiting participation in decision-making to senior officers
C. Focusing only on technical repairs and maintenance
D. Dynamic decision-making based on teamwork, situation awareness, and risk assessment

6. Which of the following is the first step in conducting a risk assessment on a ship?

A. Implementing control measures
B. Identifying hazards that could cause harm
C. Monitoring crew performance
D. Reporting the findings to the port state control

7. Which of the following is the most effective method to resolve conflicts among shipboard crew members?

A. Ignoring the conflict and waiting for it to resolve naturally
B. Allowing the crew members to handle it on their own
C. Using open communication and mediation to address the issue
D. Reassigning the crew members involved to different duties

8. What is the most likely consequence of improper workload management on board?

A. Enhanced crew performance and morale
B. Reduced risk of accidents and incidents
C. Reduced need for maintenance and inspections
D. Increased stress and fatigue among the crew

9. Which training method is most effective for practical skill development on board a ship?

A. Classroom lectures
B. E-learning modules
C. On-the-job training
D. Reading manuals

10. How does a leader on board a ship foster teamwork among the crew?

A. By assigning tasks to individuals without explanation
B. By encouraging open communication and collaboration among crew members
C. By focusing on individual performance rather than team efforts
D. By discouraging suggestions from junior crew members

Section B

Answer all questions of Part B. Each question carries 2 marks.

11. What is ERM (Engine Room Resource Management)? Answer briefly.

12. Explain purpose of 'Designated Person' as per the ISM Code.

13. Write the name of 4 barriers in communication.

14. Suggest practical steps to enhance cross-cultural communication and awareness.

15. List the purposes of toolbox meetings.

Section C

Answer any 5 questions (out of 7) from Part C. Each question carries 10 marks.

16. a. Explain ERM in terms of maintaining safe engineering watches.
b. Explain different resources to be included in ERM. (7+3 marks)

17. Explain the ISM Code, its background, primary objectives and 12 elements in brief. (10 marks)

18. a. Enumerate the salient features of STCW Convention and Code adopted at the Manila Conference June 2010.
b. Discuss Risk assessment & Risk Matrix. (5+5 marks)

19. Review theories on the use of short and long term strategies. (10 marks)

20. Explain safety measures to be taken during shipboard repairs and maintenance. (10 marks)

21. a. Review any five training methods that could be adopted on board ship.
b. Discuss the importance of debriefs and reflection after activities that have been conducted to identify opportunities for improving task and workload management (in approx. 400 words). (5+5 marks)

22. Discuss strategies that management level officers could adopt to enhance their effectiveness in managing crews of different culture. (10 marks)