

Q1 (20 marks)

Prepare a manual for safe manning requirements for a ship of Your choice taking into account the IMO guidelines on the issue, also considering frequent port calls, rest hour management and high-risk areas. (20)

Q2 (20 marks)

(a) Differentiate between annual, intermediate, renewal, damage and repair surveys. What are the purposes of each survey onboard? (12)

(b) Enlist all statutory certificates carried onboard, their issuing authority, and the IMO Convention under which they are issued. (8)

Q3 (20 marks)

(a) Define the meaning of the term "Conditions of Assignment" as applied to ships. (7)

(b) State how conditions of assignment contribute towards water integrity of ships. (7)

(c) Give reasons why conditions of assignment need periodic inspection, giving specific (6)

Q4 (20 marks)

(a) State the difference between an audit and survey. (4)

(b) State the action taken by a recognized organization carrying out ISM certification on behalf of the Administration towards handling of an ISM certificate in case: (10)

(i) When there is evidence of major non-conformity

(ii) When non-conformities are found

(iii) When an extension of the Safety Management Certificate is requested for.

(iv) When revision of an entry for a certificate is requested for.

(c) Under What circumstances SMC and DOC may be invalidated? (6)

ISM

Q5 (20 marks)

(a) Explain the objectives and scope of SOLAS Chapter XII. What are the structural and operational safety measures required for bulk carriers carrying high-density cargoes? (10)

(b) Discuss the requirements related to the fittings of water ingress alarms and loading/unloading procedures. Why are these measures critical for the safety of bulk carrier? (10)

Q6 (20 marks)

(a) Briefly discuss the purpose and structures of MLC, 2006. (7)

(b) What are the health and safety protections offered to seafarers under MLC? (7)

(c) Describe the onboard complaint procedures as per MLC. (6)

Q7 (16 marks)

(a) Explain the purpose and objectives of the Ballast Water Management (BWM) Convention. Describe the D-1 and D-2 standards specified under the convention, highlighting the key differences between them. (6)

(b) Describe the ballast water exchange methods used on board ships. Explain the three main methods and discuss the precautions and limitations associated with each. (10)

Q8 (20 marks)

A vessel is due for international air Pollution Prevention Certificate renewal survey and company instructed to offer this vessel for survey at the port of call.

(a) As a 2nd Engineer Officer of above mentioned vessel, what all checks you carry out and how you prepare for the IOPP renewal survey (10)

(b) What records, procedures, certificates etc., you will keep ready for attending surveyor verification. (10)

Q9 (20 marks)

(a) Briefly discuss the types of records that can be maintained electronically under MARPOL and the approval process for ERB's (10)

(b) Highlight the advantages of using ERBs compared to traditional paper-based record books and state the measures required to ensure data integrity and security. (10)