

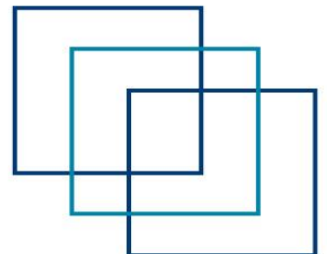


MEO CLASS-1 WRITTEN

FOR INDIAN COMPETENCY EXAM

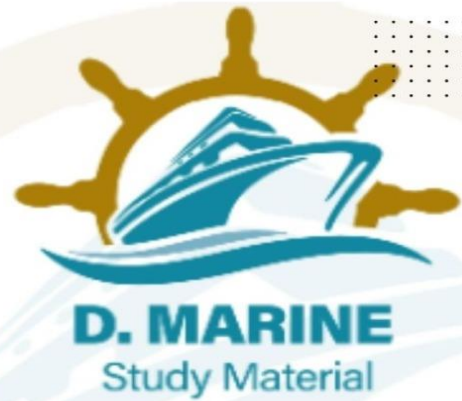


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JAN -2026

Q1. Reducing the speed of main propulsion engines is considered to be the simplest and most practical short-term solution for lowering GHG emissions from ships. What are the drawbacks and dangers of operating main propulsion two stroke marine engines at low speeds for extended periods of time? How can these issues be resolved and the risks associated with low-speed operation reduced?

2026/JAN/01

[Click Here to See the Answer](#)

Q2. Define Communication. Enumerate and discuss the different types of communications. Discuss the various barriers to effective communication. You are carrying out a Main engine decarbonisation and the work is carried out in two groups, one working on the cylinder head platform and the other group working in the bottom platform. Identify the areas in this operation where there can be a hazard due to failure of communication. Also suggest risk mitigation measures to mitigate this hazard of failure of communication.

2020/MAR/Q5 **2022/JAN/Q5** **2025/SEP/Q6** **2026/JAN/Q2**

[Click Here to See the Answer](#)

Q3. What are the principles of modern salvage law? What is general average?

Explain with context to general average (i) Entitlement (ii) Artificial (iii) Adjustment (iv) Contestation.

2021/JUL/Q9 **2022/FEB/Q4** **2024/JUN/Q8** **2026/JAN/Q3**

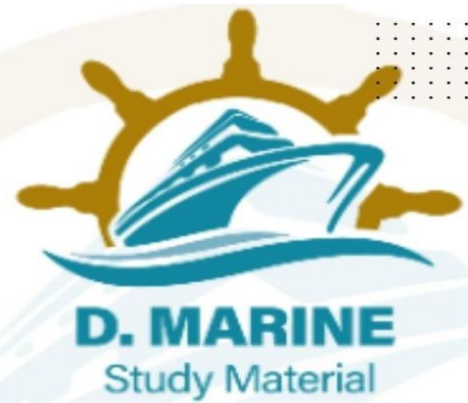
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Q4. A VLCC suffered hull damage following a tank explosion and sank after a few days while undergoing salvage operations in the territorial sea of a coastal state. Discuss ship-owner's protections with reference to (a) marine insurance and (b) liabilities under international conventions.

2026/JAN/Q4



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Q5. Corrosion is considered to pose a considerable danger to ships hulls, cargo and ballast tanks, discuss the following:

- i. Influence of temperature on the corrosion rate of cargo and water ballast tanks.
- ii. Causes of coating deterioration in cargo and ballast tanks.
- iii. Describe how an assessment of the coating condition helps to be aware of the tank corrosion status.
- iv. State the information obtained from Coating Technical File.

2026/JAN/Q5

[Click Here to See the Answer](#)

Q6) Control of disease vectors is necessary for maintenance of health on board ships. What is the Role of the WHO organisation in this regard and which are the national agencies tasked with the maintenance of the ship and the crew in good health? What are the different certificates issued to a vessel for maintenance of the ship in good health? Who can issue these certificates in India and what is the validity and extension options for such certificates?

2025/NOV/Q3 2025/DEC/Q1 2026/JAN/Q6

[Click Here to See the Answer](#)

Q7. State the UNCLOS requirements for member States

- (a) to register ships flagged with them and
- (b) to control safety, pollution and social aspects of ships.
- (c) What mechanisms are used in India to comply with these requirements enumerated at (a) and (b) above?

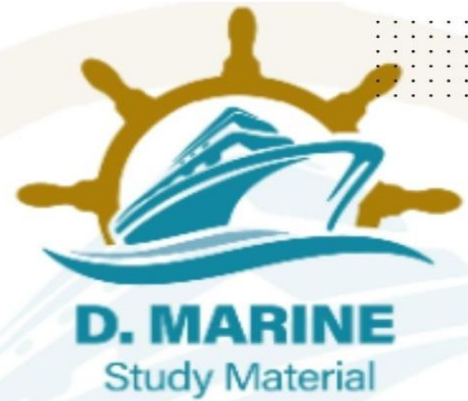
2022/MAR/1 2026/JAN/Q7

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Q8a) State the applicable regulation of SOLAS and MARPOL under which it is mandatory for a flag state to conduct an investigation into any casualty.



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b) Briefly write the salient points of casualty investigation code and the recommended practices for a safety investigation into a marine casualty or marine incident

c) What do you understand by the term very serious marine casualty?

2023/JAN/Q7 **2024/AUG/Q3** **2025/JUN/Q7** **2026/JAN /08**

[Click Here to See the Answer](#)

Q9a) How is Human Element issue addressed in STCW code.

b) Discuss the IMO guidance on fatigue mitigation and management on board ships

2025/AUG/Q4 **2026/JAN/09**

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FEB-2026

Q1.(a) Enumerate the three main principles of LLMC (Limitation of Liability for Maritime Claims) convention 1976 and explain its linkage with two other IMO Liability and compensation Conventions

(b) Discuss what are the different liabilities covered under the LLMC (Limitation of Liability for Maritime Claims) Convention 1976.

(c) Discuss the principles of the International Salvage Convention 1989, as established by the IMO. Furthermore, examine the rationale for extending liability limitation to salvors under the LLMC Convention, and specify the current liability limit applicable to them.

2025/AUG/01 **2026/FEB/01**

[Click Here to See the Answer](#)

Q2.(a) Discuss the concept of CII (Carbon Intensity Indicator) as adopted in MARPOL and the commercial impact of CII in shipping business.

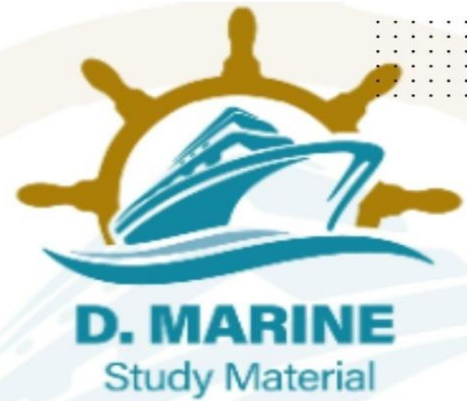
(b) Discuss shortcomings of the current CII concept being faced by the industry and remedial measures adopted.

2025/AUG/02 **2025/SEP/02**

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Q3. a) Discuss the application of formal safety assessment in carriage of lithium battery in vehicles and containers and in RORO ships.

(b) State various measures to be taken by stakeholders in minimizing the incidents in the above instance.

2025/AUG/03 **2026/FEB/03**

[Click Here to See the Answer](#)

Q4.a) How is Human Element issue addressed in STCW code.

b) Discuss the IMO guidance on fatigue mitigation and management on board ships.

2025/AUG/04 **2026/JAN/09** **2026/FEB/04**

[Click Here to See the Answer](#)

Q5. What do you understand by "Unseaworthy vessels" within the meaning of the Merchant Shipping Act, 1958, as amended? What according to you is the difference between "Unseaworthy ships" & "Unsafe ships". What are the obligations of owners to crew with respect seaworthiness?

2025/AUG/05 **2026/FEB/05**

[Click Here to See the Answer](#)

Q6.a) "General average is based on certain essential features"-Discuss the statement.

b) A large vessel ran aground. Main engine was used in ahead and astern directions to shake the vessel loose from the ground. Due to excessive load some bearings of the main engine got burnt. Can this damage be included in the general average? Give proper justification to your answer.

2025/AUG/06 **2026/FEB/06**

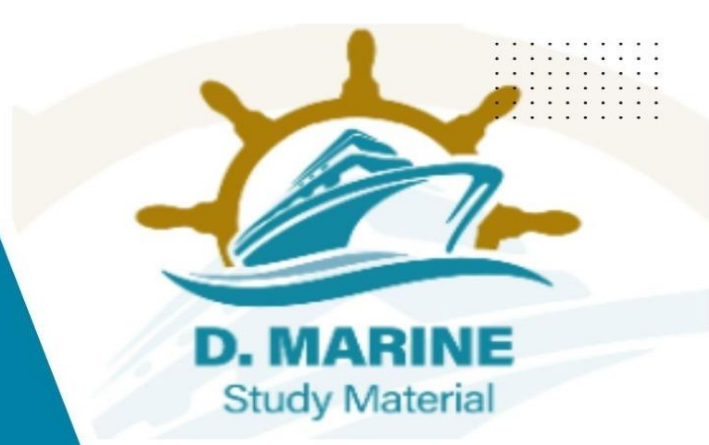
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Q7. Discuss the procedure of entry into force of an IMO Convention after its Adoption? State the provision and its importance towards entry into force of the convention. For a convention of important technical nature state, the general rules/ conditions observed by the states for its entry into force.

Explain the terms (1) Accession (ii) Signature subject to Ratification, acceptance or approval.



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2025/JUN/02

2025/AUG/07

2025/NOV/09

2026/FEB/07

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Q8 Discuss the revised GHG (Green House Gas) strategy of the IMO and amendments being considered under MARPOL Annex VI, including the inclusion of new Chapter-V to achieve the decarbonisation goal and transition to a Net Zero future in shipping.

2025/AUG/08

2026/FEB/08

[Click Here to See the Answer](#)

Q9 (a) As per UNCLOS what are the sovereign rights and jurisdictions applicable to the coastal state and Flag state of the vessel in various maritime zones of the coastal state? Explain your answer with suitable explanations.

(b) A cadet goes missing from the vessel in the Exclusive Economic zone of India which laws will apply and what actions will be taken as per the applicable laws?

2025/AUG/09

2026/FEB/09

[Click Here to See the Answer](#)

MAR 2026

Q1. Discuss the procedure of entry into force of an IMO Convention after its Adoption. State the provision and its importance towards entry into force of the convention. For a convention of important technical nature, state the general rules/conditions observed by the states for its entry into force.

Explain the terms

(i) Accession

(ii) Signature subject to Ratification, acceptance or approval.

2025/JUN/02

2025/AUG/07

2025/NOV/09

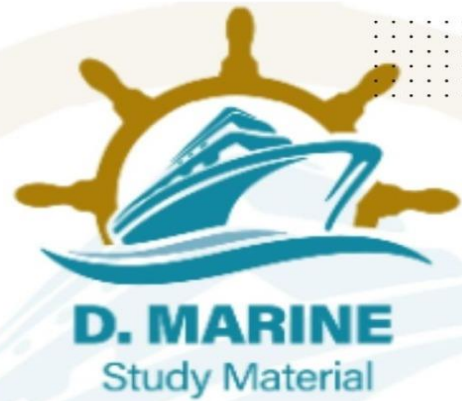
2026/FEB/07

2026/MAR/01

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Q2. With reference to cargo securing of containers in Container vessels:

i. Discuss the use of roll design assessment software to avoid excessive roll motion in container ships. ii. Discuss the use of Cargo Securing Manual (CSM) and its content and state regulations and codes associated with Cargo Securing Manual.

2026/MAR/02

[Click Here to See the Answer](#)

Q3. With respect to the geo-political situations and war situations ongoing in the Persian Gulf: a) Explain War Risk cover in Marine Insurance, and describe the key aspects included in this war risk cover. b) Describe some of the measures which Insurers and P&I clubs take to protect themselves from high claims during war situations.

[Click Here to See the Answer](#)

Q4. Control of disease vectors is necessary for maintenance of health on board ships. What is the Role of WHO in this regard and which are the national agencies tasked with maintenance of the ship and crew in good health? What are the different certificates issued to a vessel for maintenance of the ship in good health? Who can issue these certificates in India and what is the validity and extension options?

2025/NOV/03 **2025/DEC/01** **2026/JAN/06** **2026/MAR/04**

[Click Here to See the Answer](#)

Q5. With reference to LNG bunkering procedure on board vessels fuelled with LNG fuel. Please explain the following processes: a. Gassing-up, b. Cooling down, c. Vapour Management, d. Emergency release coupling procedure.

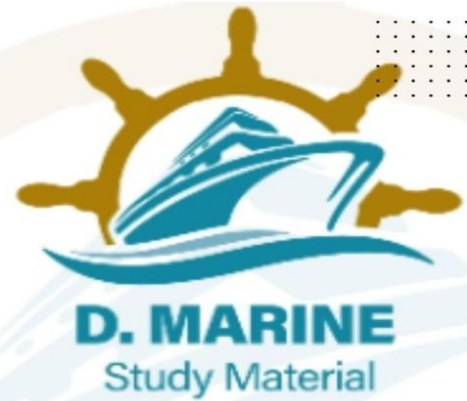
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Q6 a) Discuss the differences between Enhanced Survey Program (ESP) and Condition Assessment Program (CAP) survey. b) State the documents and records needed for carrying out Enhanced Survey Program. c) State information found in safe access plan for Enhanced Survey Program.

2025/NOV/05 **2026/MAR/06**



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Q7.You as Chief Engineer are required to inform your Company with respect to inspection of propellers in the dry dock during which you noticed a surface crack on one of the blades. State the steps taken by you as Chief Engineer for successful handling of the situation.

2024/OCT/04 **2025/NOV/06** **2026/MAR/07**

[Click Here to See the Answer](#)

Q8(a) Discuss the application of formal safety assessment in carriage of lithium battery in vehicles and containers and in RORO ships. b. State various measures to be taken by stakeholders in minimizing incidents in the above instance.

2025/AUG/03 **2026/FEB/03** **2026/MAR/08**

[Click Here to See the Answer](#)

Q9.Discuss the Hong Kong Convention for the Safe and Environmentally Sound Recycling of Ships. What is its significance for India, and how does India's shipbreaking industry stand to benefit or be impacted by its implementation?

2025/NOV/08 **2026/MAR/09**

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APR-2026

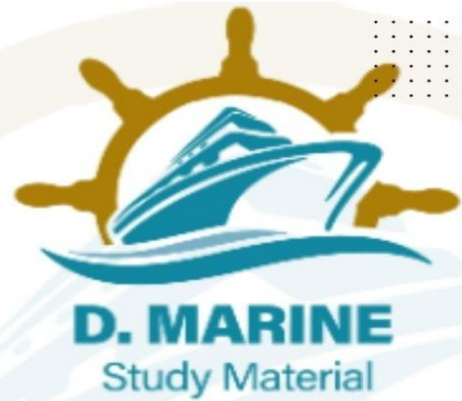
Q1. MARPOL is considered as one of the most flexible and efficient international environmental treaties currently in force. The adoption of a new amendment is enumerated in Article 16 of the MARPOL. This article establishes multiple ways for amending the convention, depending on what part of MARPOL is being amended. Kindly discuss the various ways in which the MARPOL convention may be amended. (16)

2026/APR/Q1

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- Q2. a) Discuss the application of formal safety assessment in carriage of lithium battery in vehicles, containers and in RO-RO ships. (10)
b) State various measures that are required to be taken by stakeholders to address the safety challenges in the carriage of such cargo's onboard ships. (6)

2025/AUG/Q3 **2026/FEB/Q3** **2026/MAR/Q8** **2026/APR/Q2**

[Click Here to See the Answer](#)

- Q3. A. What are the principles of modern salvage law? (5)
B. What is general average? Explain the following in reference to the general average: (3)
i. Entitlement (2*4)
ii. Artificial
iii. Adjustment
iv. Contestation

2021/FEB/Q6 **2021/JUL/Q9** **2022/FEB/Q4** **2024/JUN/Q8**
2026/JAN/Q3 **2026/APR/Q3**

[Click Here to See the Answer](#)

- Q4. A VLCC suffered hull damage following a tank explosion and sank after a few days while undergoing salvage operations in the territorial sea of a coastal state.

Discuss ship-owner's protections with reference to:

- (a) marine insurance and
(b) liabilities under international conventions. (16)

2026/JAN/Q4 **2026/APR/Q4**

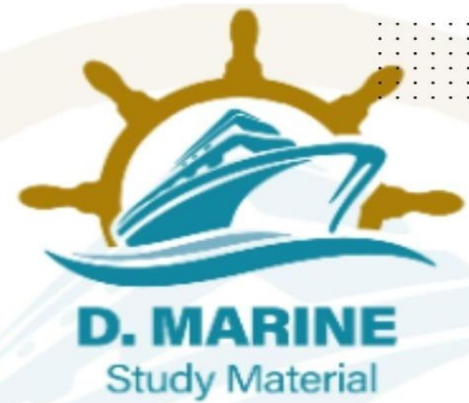
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- Q5. With reference to biofouling of ships hull:

- a) Discuss consequences of biofouling on the ship performance and the environment. (4)
b) What are the new approaches to reduce biofouling. (4)
c) How ship specific Bio Fouling Management Plan can minimize biofouling. (4)
d) State the entries in Bio fouling Record Book. (4)



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2026/APR/Q5

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- Q6. a) Control of disease vectors is necessary for maintenance of health on board ships. Elucidate the role of the World Health Organization to ensure health safety at sea. (5)
- b) Which are the national agencies tasked with the enforcement of the health protocols and regulations, ensuring the safety of seafarers and compliance of the ship with international safety standards? Briefly explain the procedure followed by in India. (5)
- c) What are the different certifications issued to a vessel for maintenance of the ship in good health? (5)
- d) Name the competent authority in India for inspection and issuance of certificates to a ship. What is the validity of these certificates? Are there provisions for extension of such certificates beyond the date of expiry? (5)

2026/APR/Q6

[Click Here to See the Answer](#)

- Q7. Explain the provisions under United Nations Convention on the Law of the Sea (UNCLOS) that mandates the following from each member States:
- a) States must “maintain a register of ships” flying their flag. (5)
- b) Control safety, pollution and social aspects of ships. (5)
- c) Analyze the legislative and constitutional mechanisms adopted by India to implement the provisions of the UNCLOS in respect to the obligations referred in (a) and (b) above, since its ratification. (6)

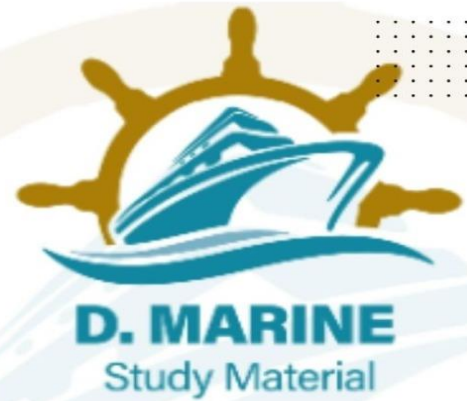
2022/MAR/1 **2026/JAN/Q7** **2026/APR/Q7**

[Click Here to See the Answer](#)

- Q8. a) State the applicable regulation of SOLAS and MARPOL under which it is mandatory for a flag state to conduct an investigation into any incidence of maritime casualty. (5)
- b) Illustrate the salient points of casualty investigation code and the recommended practices for a safety investigation into a marine casualty or marine incident. (7)
- c) What do you understand by the term ‘very serious marine casualty’? (4)



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2023/JAN/Q7 2024/AUG/Q3 2025/JUN/Q7 2026/JAN/Q8
2026/APR/Q8

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Q9. a) How is Human Element issue addressed in STCW Code? (6)
b) Critically examine the impact of fatigue on seafarer performance.
Identify the measures adopted by the IMO in this regard. What measures
can a shipping company implement to mitigate these risks in
compliance with international regulations? (10)

2025/AUG/Q4 2026/JAN/Q9 2026/FEB/Q4 2026/APR/Q9

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JUNE-2026

Q1. (a) Discuss the concept of Goal-based Ship Construction Standards (GBS) for bulk carriers and oil tankers, emphasizing their significance in enhancing safety and environmental protection.

(b) Discuss the implementation process of Goal-Based Standards, considering the involvement of various stakeholders such as ship designers, shipbuilders, and classification societies.

2023/DEC/Q1 2026/JUN/Q1

[Click Here to See the Answer](#)

Q2. (a) Explain the concept of Port State Control, with focus on the legal framework. [8]

(b) What are the rights of appeal available to you as the Chief Engineer or to the Company, if the ship has been detained for deficiencies considered to be unreasonable and unfair.

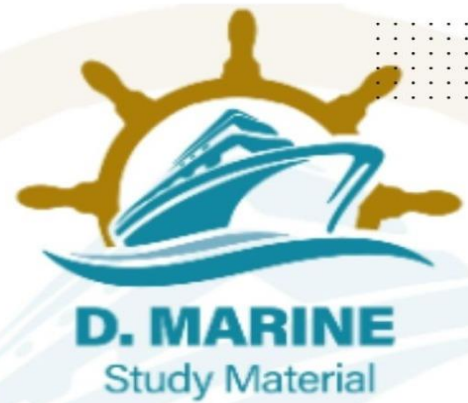
2023/DEC/Q2 2026/JUN/Q2

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Q3. (a) What are the types of losses in marine insurance? Define General Average Act as per York-Antwerp Rules 1994? State the circumstances under which "General Average" can be declared?



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(b) Differentiate between express and implied warranties and give an example of each case with reference to hull and machinery policy of insurance.

2023/DEC/Q3 **2026/JUN/Q3**

[Click Here to See the Answer](#)

Q4. (a) Discuss the need to upskill and train the seafarers in the decarbonization scenario with examples citing the anticipated areas of concern.

(b) Effective communication has been identified as one of the causal factors in maritime accidents. Discuss its importance in safety of ship operations particularly with reference to the present-day shipboard crewing scenarios.

2023/DEC/Q4 **2026/JUN/Q4**

[Click Here to See the Answer](#)

Q5. (a) Examine the role of the Safety Management System (SMS) in the implementation of the ISM Code, highlighting its components and the significance of continuous improvement.

(b) Examine the evolution of the ISM Code in response to emerging challenges in the maritime industry, including technological advancements, cyber risks, and environmental sustainability.

2023/DEC/Q5 **2024/AUG/Q9** **2026/JUN/Q5**

[Click Here to See the Answer](#)

Q6. Discuss the capital, voyage and operating costs of ship operation and explain Chief Engineer's role in optimizing them. What are the modern management principles used in inventory control?

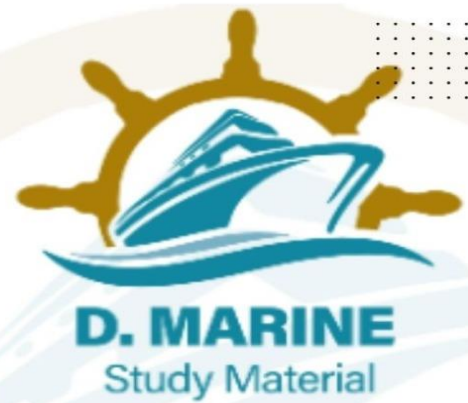
2021/FEB/Q1 **2022/FEB/Q2** **2023/DEC/Q6** **2024/FEB/Q6**

2026/JUN/Q6

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Q7. (a) The “Lakshadweep Islands” and the “Andaman and Nicobar Islands” are known for their critical habitat and are required to be protected from marine pollution. Describe briefly how these islands could be protected from marine pollution.

(b) Briefly explain the term “Particularly Sensitive Sea Area”. Describe briefly the various criteria associated for identification and designation of a PSSA.

2023/DEC/Q7 **2025/FEB/Q9** **2026/JUN/Q7**

[Click Here to See the Answer](#)

Q8. (a) Discuss the role of Classification Societies in structural, mechanical, and electrical rule formation and implementation during design, construction, and maintenance of ships in compliance with the above referred Class rules now mentioned in SOLAS Ch. II-1.

(b) Explain the difference and relevance between annual and periodical surveys towards harmonised survey and certification system.

2022/OCT/Q5 **2023/APR/Q9** **2023/DEC/Q8** **2024/DEC/Q4**
2025/SEP/Q9 **2026/JUN/Q8**

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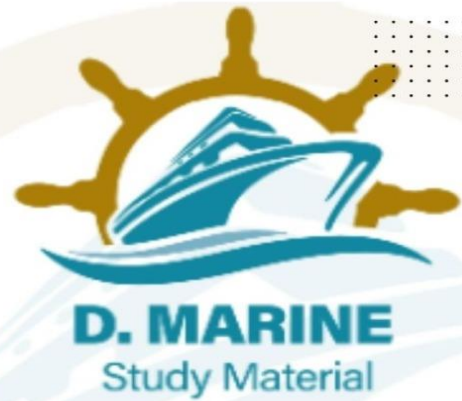
Q9. Formal Safety Assessment (FSA) is being widely used in the rule-making processes of IMO. Narrate the objectives, characteristics, and processes of the FSA, with specific explanation regarding Hazard Identification, Risk Analysis and Cost Benefit Assessment.

2022/APR/Q7 **2022/AUG/Q9** **2023/JUL/Q6** **2023/DEC/Q9**
2026/JUN/Q9

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JULY-2026

Q1. (a) Discuss the application of a formal safety assessment in loading and carriage of iron ore pellets as cargo in bulk. [8]

(b) What are the specific carriage and voyage monitoring requirements for a vessel transporting iron pre pellets? [8]

[Click Here to See the Answer](#)

Q2. There is a bunker overflow from a large merchant ship while in foreign waters, in which you are the Chief Engineer. State in systematic detail the actions which you will need to take,

(i) keeping in mind that the oil-spill/contamination needs to be kept to a minimum,

(ii) the documentation that you will need to consider to be critical,

(iii) local regulatory reporting that you would mandatorily need to do,

(iv) the cooperation that you would need to extend to the investigators, and

(v) the liabilities which you are likely to face and thereby, must guard against. [16]

[Click Here to See the Answer](#)

Q3. (a) Enumerate the structure of IACS and explain difference between UI, UR, PR from IACS Does it have any significance to ship owners/operators? [8]

(b) What is a Recognized Organization (R.O.)? What are the salient features of the R.O. Code? How do Administrations monitor R.O.s? [8]

2023/MAR/08 **2024/JAN/05**

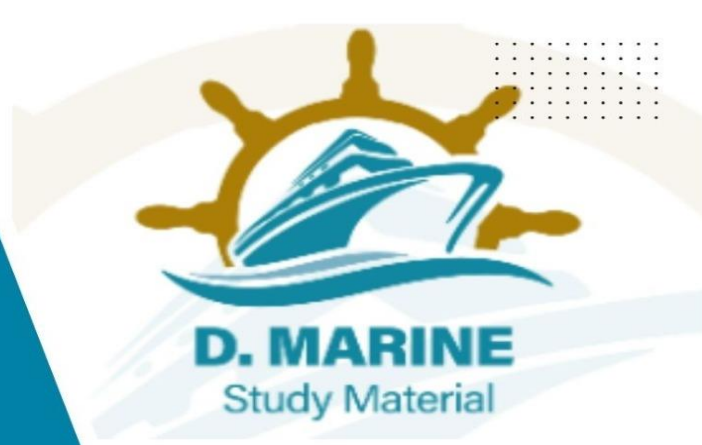
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Q4. As the Chief Engineer of a large merchant ship, you are about to enter an Emission Control Area. Explain with justification the instructions you need to give to your colleagues with respect to the procedures to be followed regarding fuel change over, considering the boilers and engines. Enumerate the statutes involved, if any, in this regard. [16]

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Q5. Explain the concepts of "Particular Average" and "General Average". What are the circumstances when a general average can be declared? Who are average adjusters and what is their role in general average loss situations? [16]

[Click Here to See the Answer](#)

Q6. Evaluate the use of Green Ammonia as a zero-carbon marine fuel. What is the primary safety, storage, and combustion challenges of using ammonia in marine internal combustion engines versus fuel cells. [16]

[Click Here to See the Answer](#)

Q7. India has recently taken significant legislative measures that are critical to streamlining maritime governance and bringing India's shipping regulation in line with global practices. Explain the significance of the Merchant Shipping Act, 2025, particularly in the context of how it shall contribute to trade and tonnage expansion, attract foreign investment and enhance its maritime standing, aligning with global best practices. [16]

[Click Here to See the Answer](#)

Q8. (a) In the context of the human element, explain the difference between crew "competence" and crew "performance." Discuss the role of ongoing training and drills in ensuring that competence translates into high performance, especially during emergencies. [8]

(b) Discuss the positive and negative effects of advanced technology and automation on the human element in shipping. [8]

[Click Here to See the Answer](#)

Q9. Explain the principle of "uberrimae fidei" in Marine Insurance. What are the different disclosures which must be made by the insured to the insurer in a Marine Insurance? List the circumstances which need not be disclosed to the insurer? What happens to the Marine Insurance contract if the disclosures are not made to the insurer at the time of conclusion of the contract. [16]

[Click Here to See the Answer](#)