

Class 2/1 Shipboard Operations

General Items

- 01.** List the causes of cargo damage and cargo lose.
- 02.** What are the points to consider while preparing a pre-stowage plan ?
- 03.** What is ship sweat and cargo sweat ? Describe precautions to be followed to prevent cargo damage from their effects.
- 04.** Describe the precautions during and prior loading a heavy lift.
- 05.** Describe the maintenance required for ship's Crane and derricks. Describe advantages and disadvantages of ship's crane over derrick ?
- 06.** Describe the use of fork lift during cargo loading and stowage on board ? What are the hazards associated while using fork lift?
- 07.** Prepare a checklist for cargo officers prior, during and on completion of cargo loading on board a general cargo vessel.
- 08.** Describe the importance of cargo monitoring and tallying during cargo operations. How the management of this operation is carried out ?
- 09.** Write short notes on – i) Thorough examinations, ii) Competant Person, iii) Authorized Person, iv) Responsible Person.
- 10.** List the safe guards required for fumigating a vessel.
- 11.** Define as per ILO – 152, occupational safety and health procedures.
- 12.** Describe the dry-hold method for preventing sweats on board ships.
- 13.** What are the conditions for ' Freeboard Assignment ' ?
- 14.** What is chain register ? How often entries are made in chain register. Describe the testing method of derrick.
- 15.** Explain the danger of heavy seas breaking on board and how to minimize this risk ? Explain the actions to be taken by master for a vessel with angle of loll ?
- 16.** On board training and drills are very essential for safe operations. Discuss how, when and on which items on board training and drills should be carried out.

- 17.** How to deal with garbage on board ? How you segregate the garbage on board ?. What are the discharge criterion to sea ?. What are the special areas under Marpol Annex V ?
- 18.** Describe the paint scheme of a modern bulk carrier. How to prepare surface for painting. What are the possible causes of paint failure.
- 19.** What are the contents of IMDG Code ? What is EMS & MFAG. How to separate IMDG cargoes ?
- 20.** What is cargo record book and oil record book ?List the entries to be made in cargo record book and oil record book.
- 21.** Under which convention PSC can board the vessel ? what are the certificate to be checked ? In which case PSC can detain your vessel?
- 22.** During discharging found cargo damage – describe your actions as a chief officer ?
- 23.** Describe advantages and disadvantages of union purchase system.
- 24.** Describe how you will ensure compliance with hours of works requirements of the STCW convention ? Discuss the hours of works and hours of rest requirements. How will you employ crewmembers to work in case of emergency ?
- 25.** List the repairs and inspections which can only be carried out in dry dock. How often a vessel should be in dry dock ? Is it dependent on the use of anti-fouling paints ?
- 26.** You are safety officer on board, describe your duties as per ISM Code.
- 27.** What is letter of protest and note of protest and in which case you will issue these?
- 28.** Write short notes on International Tonnage Convention. Is Bangladesh party of this convention. Discuss why it is required for a vessel to have tonnage certificate ?
- 29.** Name the publication which are required on board when loading – i) Timber, ii) Grain, iii) Ammunitions,

- 30.** Describe the routine care and maintenance for ship's fresh water. State the action to be taken if it was suspected that a fresh water tank is contaminated ?
- 31.** State the measure you will take for pest control in galley, store and accommodations.
- 32.** Describe the meaning and information of stowage plan and pre-stowage plan. Discuss the factors to be born in mind when drawing up a pre-stowage plan.
- 33.** State the meaning of approved port and designated approved port. State the validity of deratting and deratting exemption certificate and how a ship master may obtain these certificate ?
- 34.** Describe the procedures and precautions to be followed if the destination port known to be Malaria prone.
- 35.** How to write on a ' Mate's Receipt ' when 'grade & Packages disputes ' and ' quality & quantity ' unknown ? What is cargo manifest?
- 36.** What is Bill of Lading ,clean bill of Lading and LOI ? Shipper asking for clean bill of lading and he wants to give you LOI, your action as chief officer.
- 37.** Define stowage factor, broken stowage, Load density and cargo density.
- 38.** List the items of LSA to be inspected weekly and monthly . How this maintenance record are kept on board .
- 39.** **What are the precautions taken by Chief Officer for encountering a heavy weather?**

Container Ships

- 01.** Describe how will you secure container on deck which is not designed to carry containers.

- 02.** Describe the precautions during loading and unloading of IMDG containers on board?
- 03.** Describe the hazards of container ship. State the loading / unloading procedures of a container ship?
- 04.** Describe the precautions during loading / unloading of a reefer container vessel.
- 05.** State the contents of cargo securing manual. What are the informations provided in the cargo securing manual?
- 06.** State the factors that should be taken into consideration for stowage and securing of container on deck.
- 07.** State the requirements with regards to stowage, packaging and documentation when carrying dangerous goods?
- 08.** What are the precautions to be taken for reefer container-(i) Prior Loading, (ii) During Loading and (iii) During sea passage.

Ro-Ro ships

- 01.** Describe the safety precautions to be taken during loading / unloading of Ro-Ro ship.
- 02.** Describe how will you secure the trailer and vehicles?

Bulkers

- 01.**
 - a) Briefly describe the hazards associated with the carriage of solid bulk cargo.
 - b) How will you accept the bulk cargo for loading ?
 - c) Describe coal cargo ventilation procedures.
- 02.**
 - a) What documents to be carried on board for carriage of Grain ?
 - b) What are the ' Intact Stability Criteria ' to be maintained for vessel carrying Grain cargo ?
- 03.** Define FMP, TML & Moisture Migration. Describe the hazards involved with bulk cargoes,

04. List the documents to be carried on board for loading grain cargo and what are the 'Intact Stability Criteria ' for carriage grain cargoes ?
05. Describe the measures to be taken on board to reduce the volumetric heeling moment of ' filled ' and ' partially filled ' compartment. How adequate stability is maintained during all stages of the voyage.
06. You are the chief officer on board a large OBO. Describe followings in short – a) requirement of loading calculations instruments and information attainable from them.
07. What is DOA ? How can you load grain cargo without DOA ?
08. List the catagories of Coal Cargoes. Describe the general precautions for loading coal cargoes.
09. How do you ensure that your vessel is complying with IMSBC Code. What are the certificates required under IMSBC Code ?
10. Describe the general precautions to be observed when loading a consignment of high density solid bulk cargo on a general cargo vessel so as for – a) present the structure being overstressed, b) ensure adequate stability.

Painting and Maintenance

01. Describe the advantages and disadvantages of sacrificial anode and impressed current system.
02. What is PMS? Your vessel planned for passage from Chittagong to Hamburg, How will you plan a PMS?
03. How will you prepare your ship painting? What are the causes for paint failure?
04. Describe the maintenance of cargo gears to ensure smooth cargo operations and fulfilment of legal requirements
05. Calculate the amount of anti-fouling paints to be on board prior to dry docking of your ship length 160m with a light ship displacement of 5000 tons. If one gallon of paint can cover an area of 20 m2.

06. What is cathodic protection? Describe two methods of cathodic protection used on board ship.

Tankers

- 01.** What are the Advantages and disadvantages of COW?
- 02.** Briefly describe various types of deck water seals,
- 03.** What are purposes of scrubber and deck water seal?
- 04.** As A cargo tank has dimension of 3 X 5 X 8. Ullage is 1.8m, SG of the cargo is 0.75 @ 15°C, DCF 0.00076/deg. Present cargo temp 30°. Find quantity of cargo in the tank?
- 05.** What is COW? What are all precautions shall be taken for a COW operations?
- 06.** As What are the factors to be considered for preparing a stowage plan for a Chemical tanker? Which publication will you consult?
- 07.** What are the points to be considered while building a 'Pre-Stowage Plan' for loading a Chemical Tanker ?
- 08.** Describe the hazards associated with a Chemical Tanker? Describe safety precaution during loading / unloading chemical cargoes
- 09.** Describe followings for gas tanker – I) Drying cargo, ii) Cooling Down, iii) Cargo Conditioning, iv) Charging Cargo.
- 10.** Describe the 'Inert Gas System' with sketch including deck water seal and PV valves.
- 11.** What is the ballast water management plan? how will you discharge ballast from cargo oil tank?
- 12.** Sketch and name the three basic types of pipe line system normally used on tankers. Describe their advantages and disadvantages.
- 13.** Prepare a checklist for cargo officer for loading of crude oil on VLCC.
- 14.** Describe the contents and application of ISGOTT
- 15.** VLCC freeboard 15m – how will you prepare your vessel for embarking pilot. State the requirements regarding pilot boarding arrangements.

16. What Cow? State IMO requirements of COW on VLCC. What are the precautions need to be taken before, during and after the COW operations.
17. Tank cleaning and gas freeing procedures of oil tanker for dry docking ?
18. Sketch and describe a deck water seal used in the inert gas system of a tanker. State the main function of the seal.

Safety and Quality

01. What is Risk Assessment? Prepare a Risk Assessment for an Enclosed Space Entry.
02. Describe the 'Enclosed Space Entry' procedure?
03. List the procedures to be followed to carry out a 'hot works 'repairs on board.
04. Prepare a risk assessment for 'hot works 'repairs.
05. Describe the trainings to be given to a newly joined crew member on basis of order of priority.

Surveys and Certifications

01. How will you prepare your vessel for a Load Line Survey?
02. List the items to be prepared for a Safety Equipment Survey.
03. What is Enhance Survey Procedure (ESP)? A damage sustain in your ship side by a shore crane during cargo operations – make a damage report.
04. Describe how will you prepare your vessel for dry docking?
05. Explain how will you prepare your vessel for load line survey ? what are the documents will you keep ready for inspection and reference of the surveyor ?
06. What is Continuous Assessment Survey (CAS)? Describe the steps of CAS?

Timber Cargoes

01. Describe the lashing procedures of Timber Deck Cargoes.

- 02.** You are Chief officer on board a loaded timber ship. At mid-night 2nd officer informed 'vessel listed 20°. Describe probable causes of this listing and the actions to be taken as a chief officer.
- 03.** Describe planning, preparations, loading, stowage, lashing and care during transit of timber deck cargo for a long ocean voyage with possibility of bad weather and ice accretion.