Spar Ursa;
IMO 9490856
GT 32839
NT 19559
DWT 58000tonnes
189m/32m
8700kw BHP

Surveyor Wise Question Set(2021-23)

aft perpendicular: line drawn through aft side of rudder post or centre of rudder stock

Nag

Flare: The outward curvature of the side shell in forward region

1. Tumble home The inward curvature of the side shell opposite of flare.
2. LBP distance between Fwd perpendicular and aft perpendicular of ship, always used length
3. Forward perpendicular perpendicular drawn at a point where summer load water line crosses stem
4. Working of Dcp Smothering by Thin powder as well as CO2
5. Pressure inside co2 cartridge 36 bar
6. Number of bulkhead depend upon?? Length and position of machinery space, minm. 3 bulkheads
7. Two same length ship one has superstructure is in aft side and one has at mid which have more bulkhead and why vessel having machinery space in mid will have more no of bulkhead.
8. Pyrotechnics Kunjal shah LSA pdf p.no 9
9. Decendent rate of rocket parachute atleast 5m/s
10. Solas regulation of life jacket Kunjal Shah pno 6
11. Fixed co2 ** Sheer longitudinal curvature of the deck in fwd and aft region/increased reserve buoyancy at ends, less chances of immersion during pitching, reduces amount of water coming to deck
12. nt:srinivas Ext:nag Fn3 Sheer fwd is more.
13. Camber Sheer aft and fwd Tumble home
14. Tender and stiff ship which Is unstable and stable (other cross questions) Stiff more stable because GM more
15. When G lies on M what will happen After angle of loll condition how to bring back vessel to stable condition which side to ballast first (other cross) If the high side is filled first the ship will start to right herself but will then roll suddenly over to take up a larger angle of loll on the other side, or perhaps even capsize.
16. Co2 type portable ext working where to use and
17. why Cable stopper (windlass safety)how it works
18. Type of ship sailed on Number of orb?
19. Orb entries What to do in case of wrong entry in orb? NaHCO3 takes heat, decomposes and gives CO2; smothering
20. Types of movement of ship How dcp extinguishes fire?
21. Fire extinguishing on Oil tanker f a wrong entry has been recorded in the Oil Record Book (ORB), it should immediately be struck through with a single line in such a way that the wrong entry is still legible. The wrong entry should be signed and dated, with the new corrected entry following.
22. Types of rudder Rest forgot
23. Ext :Nag F3
24. Green house effect co2, N2O, CH4, CFC, HCFC,
25. What r method launched life boat
26. EEBD ×××
27. what r the material in side..
28. Lbp
29. How to start incinerator Filling Low side net result is a moment to list the ship over still further, but the increase in list is a gradual and controlled increase. When more water is now run into the tank the centre of gravity of the ship will gradually move downwards and the list will start to decrease.
30. How to burn sludge on bulk carrier
31. If there is a crack in ship hull in bulk carrier The Global Warming Potential (GWP) of a greenhouse gas is its ability to trap extra heat in the atmosphere relative to carbon dioxide (CO2). CO2 refrence 1
32. how do you come to know Water Ingress alarm on bridge
33. A tray is full of oil how and got fire how you will extinguish it
34. Engine room is on fire and you have to do boundary cooling how will you do it If your fire Main line got bursted in engine room then how will you do boundary cooling
35. Weekly checks on isolation valve
36. Fuel reserves on life boat and life boat is not capable to hold this quantity then where will you put reserve fuel filled in drum 6 knots @24hrs
37. 1.what is dead light?? (type of light used in acc....dont knw exact)
38. 2. Regulations for life jackets? A strong shutter fitted over a porthole, that can be closed in bad weather to keep water out and discourage the glass windows from breaking.

Chain Stopper:
A fitting used to secure the anchor chain when riding at anchor, thereby relieving the strain on the windlass, and also for securing the anchor in the housed position in thehawsepipe. Chain stopper usually consists of two parallel vertical plates mounted on a base with a pivoting bar or pawl which drops down to bear on a chain link

collision bulkhead must be fitted forward, an aft peak bulkhead must be fitted, and watertight bulkheads must be provided at either end of the machinery space. This implies that for a vessel with machinery amidships the minimum possible number of watertight bulkheads is four. With the machinery aft this minimum number may be reduced to three, the aft peak bulkhead being at the aft end of the machinery space

Thermal protective aid is a bag or suit made of waterproof material with low thermal conductance.
Anti-exposure suit is a protective suit designed for use by rescue boat crews and marine evacuation system parties.
Immersion suit is a protective suit which reduces the body heat loss of a person wearing it in cold water.

Surveyor Wise Question Set(2021-23)

39. 3.difference between immersion suit and anti expousre suit? Reserve buoyancy, avoid overloading and stress, rough weather to avoid water coming to deck
40. 4.use of freeboard? distance between Waterline to uppermost continuos deck amidships
41. 5.categorise lsa equipments??
42. 6.what is written on on a lifejacket? manufacturer name and trademark, date of manufacture, solas approved symbol, FRONT printed, donning instructions, for adult or infant/child, Name of ship(USCCG)
43. collision bulkhead
44. co2 bottle bursting disc and where co2 released (fixed fire fighting system) fire in purifier (your steps) life jacket requirements 180bar/63degree
45. ISPS all DPA ANNEX 5 Garbage which can not be incenerated
46. -If we remove 1 bottle from co2 fixed system for any reason, then can we use the system or it will be out of order till we receive the bottle We can use we have NRV
47. -Ism objective -Explain hawse pipe & spurling pipe pipe through which anchor chain is led overboard from the windlass deck through the ship side
48. -Eedi to provide an international standard for the safe management and operation of ships and for pollution prevention.
49. -Shaft earthing why we use and no. Of device on board prevent spark erosion and corrosion
50. 1.Block coefficient, Prismatic coefficient, Sanitary, ballast, bilge or GS Pumps may be accepted as a fire pump, provided they are not used to pump fuel and suitable changeover arrangement is provided.
51. Freeing Port An opening in the lower portion of a bulwark, which allows deck water to drain directly overboard
52. Cable stopper The area of freeing ports shall be at least one square foot per 6 feet length of bulwarks
53. 2.Fire pump requirements, all pump which can be used as fire pump, capacity of fire pump xxxx
54. 3.CO2 flooding,CO2 cylinder bottle volume,Solas regulations, Flooding system maintenance 67litres/45kg weight of CQ2/55bar at 20c
55. 4.SCBA all checks in detail 200bar/1200litres/6L cyl vol
56. 5.Emergency generator regulations(internal) Weekly: Normal
57. 6.Stable, Unstable,Neutral equilibrium (internal) Monthly: Co2 alarm test
58. 7.SOPEP,locker location, contents in SOPEP Yearly: Line Blow through
59. How to start incinerator 2 yearly: Weight testing; 10% reduction in weight change
60. How to burn sludge on bulk carrier 5 Yearly: Relief valve test 180bar and Pilot lines pressure tested 60bar
61. If there is a crack in ship hull in bulk carrier how do you come to know 10 Yearly: 10% bottle pressure tested 250bar, if any one fails 50%, if then again then all bottles, internal inspection CO2 bottle, dip tubes checked, flexible hoses replaced
62. A tray is full of oil how and got fire how you will extinguish it 15 Yearly: Pressure test all lines. HP(Cylinder to Master v/v)190bar, MP (Master v/v to main pipe brancehs80 bar, distribution nozzle 7bar then air blow
63. Engine room is on fire and you have to do boundary cooling how will you do it If your fire Main line got bursted in engine room then how will you do boundary cooling
64. Weekly checks on isolation valve
65. Fuel reserves on life boat and life boat is not capable to hold this quantity then where will you put reserve fuel filled in drums 24 hours jerry can
66. What is inclining experiment? find out initial metacentre of ship for deflections eitheStabilograph is used.
67. Cross questions How is a pump selected for fire fighting?
68. SCBA, Checks When is SCBA used?
69. Total no. Of ORBs onboard Entries in ORB should located above the uppermost continuous deck. and aft of collision bulkhead
70. Where is ship indentification number Emergency switch board should be in same space where the emergency generator is located.
71. -LBP Fuel of flash point of not less than 43degreeC.
72. -FREEING PORT capable of giving power up to the periods of 18hrs for cargo ships 36hrs for passenger ships
73. -How many ORB on tanker and other ship easily startable at zero degree and if the temp is below this heating arrangement should be provided.
74. -ORB entries Should have two independent means of starting Capable of providing 3 consecutive starts
75. -Hawse pipe should comes on load automatically with in 45s
76. -How many annexes in marpol? list of 22.5degree or 10 degree trim.
77. -Annex 6 and Sox and Nox Regulations ?
78. After co2 flooding what checks and entry procedures .

Block coefficient:

Ratio of under water volume of ship to rectangular block having same length, breadth and depth.

Prismatic coefficient:

Ratio of block coeff to mid ship area coefficient,

on stern of vessel, front of superstructure, end transverse bulkheads of machinery space, on hatchcover

Ship stability refers to the ability of a ship to maintain its equilibrium or balance under the influence of external forces such as waves, wind, cargo, and other loads.

Statical stability is a measure of the tendency of a ship to return to the upright if inclined by an external force. When force is removed. determined by the ship's center of gravity (G) and its metacenter (M). Stability when ship is static

Surveyor Wise Question Set(2021-23)

The area under static stability curve to any given angle, multiplied by the gravitational weight (displacement *g), is the work done in heeling the ship to that angle and is known as the Dynamical Stability.

shape of the stability curve of a ship depends largely on the metacentric height and the freeboard

energy required heeling the ship from upright equilibrium till the angle of heel

Dynamic Stability: Dynamic stability refers to a ship's ability to resist excessive rolling or pitching motions caused by external forces. These forces can include wave action, wind, or sudden shifts in cargo or weight distribution

79. Solas chapter 12
80. Water ingress system
81. Hopper tank and upper Hopper tank
82. Stuff ship tender ship
83. Emergency bilge suction
84. Camber
85. Block coefficient
86. What is hypermist and location — range generally 68-93 degrees
87. Sprinkler colour coding Area covered by a single sprinkler head — Red68degrees, Yellow 79 degrees, Green93degrees, Blue 141 degrees 16m2
88. Scaba full form Scaba checks
89. Isps full form And explain level thre — 2004/2017
90. Ballast water management and year of adopted and requirements. — D1 standard temporary and for Sep,2024
91. Cargo hold fitting that is different from other ships
92. Annexure 4 and its discharge regulation
93. Bulkhead division factors
94. Types of bulkhead — construction: plain/corrugated, Position: tranverse/logitudnal, Purpose: watertight, non watertight, collision, Classes: A, B, C
95. Free surface effect
96. Deadmans handle use and if person inside
97. Safety: Marpol Annex 2 — Full name, Categories XYZ and OS, Certificate and Docs(CRB(for 3 years), SMPEP)
98. Hatch coaming — A raised vertical boundary around hatch openings in a deck to prevent entry of water to prevent ingress of water, fencing of cargo hold and support cargo hatches. 25% forward of ships length 600mm and abaft of 25% ships length 450mm
99. Liferaft release
100. Bursting disc on CO2
101. SCBA PRE DONNING CHECKS
102. DIFFERENCE BETWEEN SCBA AND EEBD — Name of ship/IMO no/port of registry/Call sign Maker name/trademark/serial no. carrying capacity/lifeboat dimensions
103. BULK AND CONTAINER DIFFERENCE
104. LIFE BOAT MARKING LIFE BOAT SAFETY
105. MLC TITLES
106. What equipments you find on forcastle deck — Anchor, hawsepipe, Chain stopper, Windlass and winches,spurling pipe, Bollard, Capstan, Panama lead/Fair lead, Forward mast, mooring pipe, sounding pipe
107. What is stabilty,dynamic and static stabilty and cross.
108. SART AND EPIRB ORB and cross Anexx 1. — SART 2/8hrs/96hrs..... EPIRB 1/48 hours
109. Fire control plan and what does it contain. Where is it kep
110. What is inclining experiment? — experiment to determine the metacentric height, and hence the height of the centre of gravity of the ship.
111. Cross questions How is a pump selected for fire fighting?
112. SCBA, Checks When is SCBA used?
113. Total no. Of ORBs onboard Entries in ORB
114. Where is ship indentification number marked?
115. -LBP -FREEING PORT
116. -How many ORB on tanker and other ship
117. -ORB entries
118. -Hawse pipe
119. -How many annexes in marpol?
120. -Annex 6 and Sox and Nox Regulations ?
121. After co2 flooding what checks and entry procedures
122. Bulkhead division factors

> Type and location fire detector smoke and flame sensors
> Fixed and portable fire fighting appliances
> Escape routes
> Types of bulkheads
> positions of dampers and vents
> Location of EEBD
> Location of fire control stations
> Emergency stop
> Location of emergency fire pump and emergency generator
> fireman outfit locker room
> Main fire pump location

Fire plan: mandatory requirement of SOLAS convention. in the working language of the crew The fire control plan provides us information about fire detection and fire fighting systems, escape routes etc.

123. Types of bulkhead
124. Free surface effect

When a tank is partially full of liquid, and the vessel heels, the liquid moves across the tank in the same direction as the heel. The centre of gravity of the ship moves away from the centreline, reducing the righting lever, increasing the angle of heel and causing virtual reduction in metacentric height.

125. Deadmans handle use and if person inside is uncounsious what will he do
126. Co2 flooding syste
127. Dcp fire extinguisher and use of magnesium stearate in it Anti caking
128. 1.Block coefficient
129. 2.SCBA full details, contain, pressure test,
130. 3.CO2 bottle volume, pressure test, line safety, 10 year maintenance
131. 4.MSB safety 67litre
132. IOPP FULL FROM AND ANNEX 1 FULL
133. ISPS FULL
134. DRAIN VALVE USE ON FIRE SAFETY LINE
135. TUMBLEHOME
136. CO2 TOTAL FLOODING SYSTEM FULL
137. CAMBER DEFINITION
138. 7.MLC CONVENTION FULL
139. Racking & it's prevention

Bulwark: A solid wall like structure fitted on the ship's side above the upper deck to protect crew member falling into the sea.
• atleast 1m height

140. Additional safety on bulk carrier WIDS
141. WLDS, it's location level of water for WLDS alarm system, and where we get alarm indication
142. releasing methods of liferaft, explain liferaft automatic release,hru & weak link
143. Marpol annex, explain Annex 4, it's regulation, if STP is not working what to do
144. Bilge injection valve, how to test
145. Bulwark
146. sluice valve x location x uses
147. working on of sprinkler system
148. CO2 release regulation

Emergency Bilge Suction:
a direct suction from the main circulating pump leading to the drainage level of the machinery space and fitted with a non-return valve shall be provided in the machinery space. The diameter at least two thirds of the diameter of the pump inlet in the case of steamships, and of the same diameter as the pump inlet in the case of motorships. used to discharge overboard large quantities of seawater accumulated in engine-room bilges using the main circulating pump

149. DOC & SMC

comany safety management system complies with ISM code
ship safety management system complies wth ISM code.

150. discharge of sludge and garbage regular and process onboard your ship
151. Chain stopper
152. Freeing port
153. Water ingress system in detail
154. Isps levels
155. Level 3 Isps in detail

Sluice Valve:A large valve in which a rectangular or circular gate slides across the opening. It has been used in oil tankers to permit gravity flow from tank to tank, with the valve being operated from the weather deck.
Free flow (Sluice) valves on tankers allow opposing tanks to be cross-connected. When large, partially filled tanks are connected, Free Surface Effect increases, and the vessel becomes less stable

156. Co2 cyl wt. And pr. In fixed fire fighting system

120Kg Weight of total, 75kg empty cylinder and 45kg weight of Co2/pressure 55bar

157. Co2 bottle pr. Test value 250bar
158. Life raft launching procedures
159. Explain the Hru and weak link
160. Depth at which Hru cuts 4m/2.2kN+-0.5
161. Decider :- EPIRB and SART

CHECKS BEFORE STARTING

INCINERATOR MDO TANK LEVEL
MDO TANK OUTLET VALVE OPEN
WASTE OIL TANK LEVEL
WASTE OIL TANK OUTLET VALVE OPEN
WASTE OIL TEMPERATURE 70 – 80 DEG C
MDO TO PILOT BURNER VALVE OPEN
CONTROL AIR VALVE OPEN

STARTING PROCEDURE

OPEN MDO TO MAIN BURNER
SHUT RE-CIRCULATION VALVE TO WASTE OIL TANK TO PREVENT D.O GOING TO WASTE OIL TANK
SWITCH ON THE START BUTTON, FAN WILL START FOR PRE PURGING.
CONTINUE PRE PURGING FOR 1-2 MIN
SWITCH ON THE MAIN BURNER TO CIRCULATE MDO THROUGH BURNER
SWITCH ON THE IGNITOR TO FIRE PILOT BURNER
SWITCH OFF THE PILOT BURNER WHEN FLAME IS STABLE
OPEN WASTE OIL TO MAIN BURNER AND SHUT MDO VALVE
SWITCH OVER TO W.O WHEN TEMPERATURE IS ABOVE 80 DEG C AND FURNACE TEMPERATURE IS ABOVE 650 DEG C.

STOPPING PROCEDURE
OPEN MDO TO MAIN BURNER AND FIRE FOR 2-3 MIN TO COOL THE BURNER.
SHUT WASTE OIL TO MAIN BURNER
SHUT RE-CIRCULATION VALVE TO WASTE OIL TANK
SWITCH OFF MAIN BURNER
SWITCH ON FAN INDEPENDENTLY FOR POST PURGING. CONTINUE UNTIL FURNACE TEMPERATURE COMES TO 60 DEG C

Class A: one hour fire test, average temp: 140/180 unexposed side above original; A60, A30, A15, A0
Class B: 30min of fire test; average temp unexposed side 140/225; B15, B0
ClassC: no cond

Surveyor Wise Question Set(2021-23)

STP test:
Coliforms – up to 100 CFU/100ml
Total Suspended Solids (TSS) – up to 35 mg/l
Biological Oxygen Demand (BOD) – up to 25 mg/l
Chemical Oxygen Demand (COD) – up to 125 mg/l
Chlorine (Free) – up to 0.5 mg/l
pH – between 6.0 – 8.5

Srinivas deciders

nt srinivas Decider :emg fire pump regulations Fire line safety devices(wanted to listen isolation valve)

.. Int:Srinivas Mechanical foam working procedure and contain Clss of b/h Class A b/h explain and max. Temp Temp Rslt 💔

-MLC and rest hours , Minimum age for working on board young seafarer definition. -Engine room bilge discharge criteria.

KM rao decider

Types of garbages:
A. Plastic
B. Food waste
C. Domestic Waste
D. Cooking Oil
E. Incinerator ashes
F. Operational wastes
G. Animal carcasses
H. Fishing gear
I. E waste
J. Cargo residues NonHME
K. Cargo residues HME

Parts of Portable Fire Extinguisher and how it functions (decider)

1 Int Types of garbage Types of smoke detectors
Lights scattering type, Light Obscuration type, Ionisation Type
Stiff ship, tender ship

max floor area per detector: 74m2
Distance between each detector: 11m
distance of detector from bulkhead: 5.5m

Basu

1. Safety on gas carrier
2. Tank construction, insulation
3. Reliquefaction
4. Fire line safety, isolation valve
5. Orb weekly entry Quantities of oil residues (sludge) retained on board. The quantity should be recorded weekly1
6. Ism chapt Solas Chap9
7. Smc ,doc
8. What is cofferdam ! empty space between two adjacent compartments; between FW and FO/LO tanks, all around ME sump
9. What is block coefficient !
10. Garboder strake !
11. Sprinkle system lot of cross questions!
12. Annex 5
13. Cross question !
14. SART cross question !
15. ISM CODE !
16. Torison box
17. Class A bulkhead
18. Stuck in meat room
19. Sart operation
20. Which things you will not burn in incinerator
21. Decider- annex 4 applicable for which type of ship.
22. Why tanker has less freeboard
23. Tanker specific marpol annex 6 and annex 1 regulations
24. Keels and it's types

INTERNATIONAL MANAGEMENT CODE FOR THE SAFE OPERATION OF SHIPS AND FOR POLLUTION PREVENTION
(INTERNATIONAL SAFETY MANAGEMENT (ISM) CODE)

1. Annexe 123 cargo residues
2. PolyChloro Biphenyls(PCBs)
3. Garbage containing more than traces of heavy metals
4. Refined petroleum products containing halogen compounds

Incineration of sewage sludge and sludge oil allowed but not inside ports, harbours and estuaries.
Incineration of PVC (Polyvinyl chlorides) shall be prohibited unless incinerator is approved for that by IMO.

For continuous-feed: waste fed after 850 degrees.
For batch-loaded: reach 600 degrees Centigrade within five minutes after start-up.

400Gt or 15 persons or more

lower permeability with more subdivisions in the ship's structure;
Tankers have much smaller deck openings in main deck.
> Tankers normally carry lesser density cargoes, ie greater buoyancy
> Tankers have greater GM values
bilge pumping arrangement on oil tanker has greater capacity

Flat keel, Bar Keel, Duct keel
A steel bar is placed at the centre of the keel called bar keel

Tanker specific MARPOL Annexe 6
Regulation 15: Volatile Organic Compounds
It states that in ports where there is a need to control the emission of VOCs, there is also a requirement for the ports to ensure appropriate recovery facilities are available.
There are 2 aspects of VOC control,
• VOC emitted to atmosphere controlled by VECS
• All tankers carrying crude oil have an approved VOC management plan

25. Duct keel arrangement — Box like structure. In top and bottom stiffeners, both sides side girders, opposite side floors
26. Enclosed space Pump room entry procedure and safety Ventilation system in pump room
27. Odmcs has what arrangements — in copy
    1. OCM
    2. Flow meter
    3. GPS
    4. Overboard V/V control Unit
    5. Data Logging unit and Computing
28. Dip tube
29. Hatch coming
30. Hopper tank — Triangular shaped Tanks fitted in the top and bottom wing sides of each cargo holdused for ballast and/or buoyancy or stability and are, in large bulk carriers, referred to as topside wing ballast tanks or bottom hopper tanks.
31. Fire pump testing

Height of Hatch Coaming should be atleast 600mm within forward 0.25 L of the ship and atleast 450mm on exposed superstructure decks abaft 0.25 L of the ship.

1. Why hatch coaming is fitted? What is IMO regulation for height of hatch coaming?
2. Hatch opening shape at corner and why? — Hatch corners are always rounded to avoid concentration of stresses which can cause crack on deck or fracture of strengthening members.
3. Water ingress system? How water is detected in cargo hold? And at what height of float sensor at which this sensor will work?
4. Marpol certificates
5. HRU function

1. What do you mean by Garboard strake
2. Purpose of having deck seal — protection against risky backflow of inert gas and oil vapour mixture can cause combustion
3. What are the safeties on mechanical foam fire extinguisher, and what is their location.
4. What all can you not burn in an incinerator — Relief hole and safety pin
5. Difference between ism and isps.
6. If port is maintaining level 3 as per isps, what should be the security level onboard and what precautions are taken then.
32. Type of ship sailed
33. Deck seal purpose — Boiler uptake, Inert Gas Generator, N2 method(Membrane type: Selective Permeation,
34. How ig generated — N2 permeates slow, Pressure Swing Adsorption(uses Carbon sieve) in copy
35. Free surface effect and how to minimize
36. Tanker less freeboard why
37. Fire plan purpose contents location
38. 6 pollutants released into air from all types of ship — ODS: CFC, HCFC, Nox: NO2, Sox: So2, SO3, VOC: CH4 Hydrocarbon , CO2, Shipboard incineration, Soot
39. Why tanker have less freeboard
40. What is permeability — permeability is percentage of empty volume of space. Ratio of Empty volume total volume PERMEABIL~ p is the volume of a compartment into which water may flow if the compartment is laid open to the sea
41. What are hooper tank
42. Type of ship Safeties of container vessel and xxx
43. Sopep Camber
44. Less freeboard on oil tanker
45. Ism & isps diff
46. A-60 bulkhead and where installed — Engine room fwd bulkhead separating E/R and cargo area
47. Isps level 3 content
48. Orb weekly entry
49. Iopp tanks
50. Why bilge pumping arrangement on oil tanker has greater capacity
51. 1.SCBA and EEBD difference

the forward bottom structure is strengthened for between 25% and 30% of the length, Plate floors are fitted on alternate frame stations (longitudinal framing) with intercostal side girders not more than 2.2m apart. The four strakes of shell plating either side of the keel are increased in thickness in the pounding region.

52. 2.TPC 3.Types of bulkhead and A-60 bulkhead related more questions
53. 4.CO2 room inspection why it open outward.
54. 5..Pounding arrangements
55. 6.HRUxxx

against shipboard harrasment and bullying, contiuation of seafarer's employment agreement and wages in event of piracy or armed robbery

56. 7.MLC-2006 ammendment
57. 8.ISM and ISPS difference and then xxx from ISPS
58. 9.Things we burn in incinerator
59. 10.MOB marker and MOB light
60. 11. Draught change if ship goes from sw to fw
61. Mid ship
62. Dip tube
63. Emergency bilge suction routine maintenance
64. Water ingress alarm
65. Rise of floor
66. 1 A60 bulkhead*
67. 2 hru
68. 3 sprinkler system***
69. 4 ORB part
70. Ext.basu Types of ship Specialty of container ship
71. TPC
72. Eebd/scba different
73. Torsion box
74. Stuck in refer
75. What is hatch coaming, height of coamings, Shape of coaming at the edges
76. Every week mandatory entries in orb
77. Difference between ISM and ISPS
78. Additional safety in bulk carrier
79. Fire fighting system for machinery space Isolation valves
80. Hopper tank F3 Annexe 2 and how its categoried Pyrotechnics Petting stuffer
81. Class of fire
82. Deck seal purpose
83. How ig generated
84. Free surface effect nd how to minimize
85. Tanker less freeboard why
86. Fire plan purpose contents location
87. 6 pollutants released into air from all types of ship
88. 1.FREEING PORT
89. 2.GARBOARD STRAKE
90. 3.BLOCK COEFFICIENT
91. 4.HAWSE PIPE
92. 5.DIP TUBE
93. 6.EEDI
94. 7.HRU RELEASE METHOD
95. Coscpool full form Controlling Operation of ship and care for persons onboard at operational level

Tanker has less freeboard:

Weather-tight integrity of freeboard deck : – The tanker has small openings on the freeboard deck, as compared to the dry cargo carrier

Cargo space subdivision :- tanker has its cargo space divided into 3*5=15 tanks by transverse and longitudinal bulkheads.

Permeability ;- the permeability of sea water entering the cargo space due to bilging is very negligible as compared to a dry cargo vessel. Normally carry lesser density cargoes ie. Greater buoyancy

testing of valves on routine interval as per PMS
greasing of all moving parts
fully open and close valve
regular training and marking of valve

Machinery spaces of category "A"

contain internal combustion machinery used for main propulsion,
internal combustion machinery other than main propulsion power output of more than 375 kW ,
or any oil fired boiler or oil fuel unit.

Lower Hopper Tanks

Similar in construction to the topside ballast tanks, these water ballast tanks are located on the bottom wing sides of each cargo hold of the ships, and they are kept in continuation to the double bottom tanks which run through the centre of the vessel. The hopper tanks provide the following advantages:

They act as additional ballast space for the ship
Their design offers slopes in the cargo hold corner which ease the collection of the cargo in the mid position of the hold for better discharging/stripping

Topside Tanks

As the name suggests, these are tanks are located on the topside corner of the ship. The topside tanks are triangular in shape fitted with wings on both sides of the cargo holds.

96. Bulbows bow
97. Collision bulkhead
98. Co2 room regulation
99. Annex 6 pollutants and what does cfc does

A bulbous bow is an extension of the hull just below the load waterline. It is of bulb like shape. The basic purpose is eliminate the bow wave and reduce the resulting drag.
The principle of the bulbous bow is that it is sized, shaped and positioned so as to create a wave system at the bow which partially cancels out the ship's own bow wave system, so reducing wave-making resistance.

100. Torsion box Stiff tender ship
101. Strakes and name any 2 types of strakes
102. Lrit vdr and ais full form only
103. Top side tank
104. Liferaft regulations location, capacity of person
105. Solas chapters
106. Draw midship section diagram of your ship

longitudinal plating in the hull is called strake

Keel Strake, Garboard strake, Bilge Strake, Sheer Strake

Bilge strake: Strake located at the turn of the Bilge

1. Co2 room entry and regulations,why door open outside? Cross questions
2. Panting, pounding, rolling, pitching, how to reduce rolling? Arrangements to reduce panting and pounding?
3. Types of keel? Duct keel and bilge keel full details?

107. 4.Angle of loll?how to reduce? Metacentre? Tender and stiff ship?
108. Freeboard Purpose of freeboard Why tanker have less freeboard
109. Double hull structure
110. why it is called dead man handle hopper tank, its speciality
111. How many break in life boat and xx
112. Automatic launching of life raft
113. Composition of dcp Sodium bicarbonate + magnesium Stearate
114. Fire fighting system in passenger ship accommodation
115. Sprinkle system how much area cover 16m2
116. Incling experiment
117. Fire detection arrangement
118. Annex1 criteria
119. cross ques Ig alrms Deck seal working
120. Freeboard in tanker
121. PV valve
122. Weekly entry in ORB 1 Quantities of oil residues (sludge) retained on board. The quantity should be recorded weekly1
123. Co2 room entry procedure Ventilation construction in co2 room
124. Safeties of sounding pipe amount of electrical energy in is limited to a level too low to ignite a flammable mixture/ explosion proof are those equipments which can withstand impact of explosion
125. Intrinsically safe equipments and cross
126. Difference between ISM and ISPS
127. What is Free surface effect and how to reduse ?
128. Camber ?
129. How will you come out if Watertight door is locked ?
130. ISM and ISPS.
131. Co2 maintenance
132. Sounding pipe regulations
133. bilge radius rise of floor
134. PSC insp Flag State insp
135. Vessel genral permit

Local operation handle provided both sides o door, For emergency operation handle and hydraulic pump is provided The time necessary for the complete closure of the door by hand gear is not to exceed 90s

straight as possible,
32mm 65mm in passsing through refrigerating space 0 degree celsius
striking plate of adeqaute thickness provided

The radius of the plating joining the side shell to the bottom shell. It is measured at midships.

rise of floor: rise of bottom shell plating above base line.

FLAG STATE INSPECTION :
• Flag state inspection is done by the country under which ship is registered.
• This is done by flag state inspector (FSI) or by RO (on behalf of flag)
• These inspections are carried out each year in the form of various surveys to ensure that standards are being maintained on the vessel flying their flag.
• Surveyors inspect the ship for verification of statutory documents and condition of ship in general.
PORT STATE INSPECTION :
• Port state inspection is done by the port in which the ship is calling.
• It is done by port state control officers (PSCO).
• This is done to ensure that the ship coming to the port follows rules and regulations.
• It is done to ensure that ship has proper and valid documents to comply with SOLAS, MARPOL &MLC

136. Safety of lifeboat — Drain plug, Emergency Tiller, Bilge Pump, Two means of release, Safety pin of release mechanism, Tanker Lifeboat Sprinkler and self contained air system, Portable fire extinguisher, FPD in freefal(Release hook safety pin)
137. Marpol full form Garbage record book

1. Hatch coaming heights and requirement
2. What to do if locked in watertight door ? if arrangements for opening is from both sides? — manual handle is provided
3. Shape of corners of hatch cover
4. ISM and ISPS
5. Weekly entry of ORB. (Not accepting what's given in kunjal sah)

138. 6.Additional safety of bulk carrier (alarm levels in cargo hold bilges)
6. Where alarm of cargo hold bilges sound? WhatsApp 阿杰:

139. What is Duct keel
140. What is MLC 2006 convention — establishes minimum working and living standards for all seafarers working on ships . The Maritime Labour Convention, 2006 or MLC, 2006 is an international labour Convention adopted by the International Labour Organization (ILO)
141. Summer load line
142. Co2 bottle safties — dip tube, bursting disc, safety pin
143. What are the things mounting on CO2 bottle — Pneumatic actuator,
144. Type of Ship Hopper tank — Hopper Tanks – Side wing tanks found in the region of the lower cargo hold of a Bulk Carrier vessel.
145. Hatch coaming
146. Difference between Eebd and Scaba
147. Location of EEBD
148. Dead man handle
149. Dip tube
150. Psc and fsi — Sheer strake is the plate that connects the deck plating and the side shell. The thickness of sheer strakes is usually at least 3 mm more than the deck plate or side shell (whichever is more)
151. Lifeboat launching
152. Life raft position
153. Bilge radius — The radius of the plating joining the side shell to the bottom shell. It is measured at midships.
154. margin plate and margin line
155. Life bouys
156. Annex 4
157. Static stability Dynamic stability
158. Bulbous bow
159. Stiff ship Tender ship
160. Collision bulkhead
161. Certificates of annex 6?
162. Lifeboat lowering speed?
163. Sheer of ship? Sheer strake? What is a strake?
164. Brakes in life boat? How does the brake work?
165. Type of vessel sailed FSE How to reduce
166. Perameablity
167. Lifeboat lowering
168. Solas requirements Emergency Gen Solas EMG fire pump Solas Fire fighting
169. Co2 Have u ever recharged any PFE Why not?
170. Steering gear safety Safmetic system — The safematic detects, isolates and switches-off the defective system automatically within a few seconds. Steering gear remains operational with the remaining system.
171. ER crane safety Lifeboat hoisting and lowering speed
172. type of fixed fire fighting system onboard
173. How to start emergency fire pump and regulations

Margin Line (Margin of Safety Line) – recommended 76mm inch line of safety below the top of the 'bulkhead deck', measured at the ship's side. As agreed by the SOLAS convention 1929.

Margin Plate – A longitudinal plate which passes alongside the extreme ends of the floors in way of the 'turn of the bilge'. The construction provides an end plate, situated either side of the vessel, to the 'Double Bottom' tank system. When the margin plate is turned down at the bilge it forms the outboard boundary of the double bottom, connecting the inner bottom in the shell plating at the bilge.

Hatch Coaming is the vertical plating built all over the hatchways to restrict water from entering the hold; and to serve as a framework for the hatch covers.

174. Lifeboat engine solas regulations Solas regulations for lowering lifeboat Speed of descent not more than 36m/min
175. What are new things introduced in seemp
176. How the angle of LOL effects stability? Greater angle of Loll lesser stability
177. How is it stable at angle of LOL?
178. What are the types of flash point? Open Cup Flash point, Closed Cup flash Point; Closed cup more accurate b/c no interfernece with outer atmosphere and Value less also.
179. Emergency generator regulations?
180. Life boat lowering speed 36m/min
181. Freshwater allowance, why the draft increases as it moves to sea water FWA=Delta/40TPC
182. Emergency fire pump regulations
183. Freeboard in tanker PV valve
184. Weekly entry in ORB Quantities of oil residues (sludge) retained on board. The quantity should be recorded weekly1
185. Co2 room entry procedure
186. Ventilation construction in co2 room
    1) water ingress system
    2) EEBD and SCBA diff.
    3) hatch coaming
187. 4)hatch coaming height and what is shape of corner of hatch coaming and why ?
188. 5)6 pollutant in annex
189. 6) what is ODS AND VOC ?
190. Torsion box
191. Collision bulkhead
192. Refrigeration room locked inside how to come ou
193. Air pollutants any And source of generation
194. International shore coupling
195. 1)pv vlv
196. 2)fire pump performance test
197. 3) bilge tank
198. 4) margin plate
199. 5) dip tube use in co2 bottle
200. 1.Freeboard
201. 2.Why freeboard imp
202. 3.Diff and significance of ism and isps
203. 4.Collision bulkhead purpose and location rule
204. 5.What to do when get stuck in reefer room

A red warning light outside every cold store room or group of cold store rooms shall be included in the lighting circuit of each such room or groups of rooms. Every cold store room shall be fitted with an internal means of sounding and external alarm and with a means of releasing the door fastenings from the inside.

Collision Bulkhead: located so that it is not so far forward as to be damaged on impact. Neither should it be too far aft so that the compartment flooded forward causes excessive trim by the bow.
> not less than 5 and not greater than 8 per cent of the ship's length

bulkhead is fitted at the minimum distance in order to gain the maximum length for cargo stowage.

Slop Tanks:
They are designed to collect oily mixtures, such as tank washings, drainings, and other oil residues, that are generated during cargo operations. The collected mixture is then stored in the slop tank, which is a separate tank from the cargo tanks.
Reg.:
1. Oil tankers above 150Gt must have Slop tanks.
2. Minimum capacity of Slop tanks atleast 3% of total capacity.

Gope

1. IMDG Code groups
2. Why mast riser is not preferable because product tanker carries different grades of oil and chances of fume intermixing
3. Slop tank definition and regulations A slop tank is a tank onboard an oil tanker which is used to collect the oily water mixtures from cargo tanks after tank washing.
4. What is hazard. Different hazards Hazard: something that could potentially cause harm.
5. 2-3 more
6. Decider: emergency generator regulation
7. Fittings in cargo hold cell guide, twistlocks, smoke detection unit,
8. Parametric rolling
9. Marpol full form
10. Annex 6 certificates
11. EEDI EEOI SEEMP
12. SEEMP (adoption date)
13. Which is more good EEDI OR EEOI
14. parametric rolling
15. Scba O2 cylinder safety Pressure reducing valve, Cylinder valve, DEmand Valve, Alarm
16. Checks on hood before donning (scba) Check the facemask straps and other rubber parts for any deterioration. Wipe the mask with a mild disinfectant and rinse under running water. Wipe dry, always. Perform pre-use checks after every maintenance.
17. Smoke detetor regulations
18. Rest forget
19. Decider
20. Lifeboat regulations
21. Deadman handle working
22. Rate of descent
23. And at what distance it will stop (1 m)
24. [23:30, 29/09/2023] Anand Vivek: Donning time of scba
25. Why is having Mast Riser in product tankers not a good idea?
26. What is DMLC ?
27. What's the difference between chemical sewage plant and biological sewage plant?
28. Function 3 Record books on ships
29. What is bulkhead Vertical partitions in a ship arranged transversely
30. Fire plan Smoke detector regulations .
31. Annex 6 certificate bulbous bow
32. why there is 6 regulations in marpol
33. If container load on ship thrn wht will be the condition of ship
34. wheather it is stiff or tender
35. Regulation of slope tank
36. what is the discharge criteria of food waste in Antarctica region
37. How many orb How many grb
38. Eebd and scba difference
39. Bulkhead and types
40. Fire plan
41. Galley fire safety
42. Visual inspection on scba before doning

Slip, trips and fall
Chemicals & Fuels
High temperature
Moving machineries
Slippery Surfaces
Fire Explosion,
Electrical hazards
Confined spaces
Loud noises

PRM occurs when the vessel is sailing with a small heading angle relative to the wave direction, and where the length of waves is about the length of the vessel and the encounter period of the wave is equal or close to half the ship's natural roll period. these conditions the vessel's underwater hull geometry is changing, and which leads to changes in the vessel's stability. The situation is especially prominent when the wave crest is amidship. As the waterplane becomes smaller the GM (metacentric height) value is reduced.

DMLC1: The Flag State of the vessel falling under the MLC 2006 will draw up a ship-specific Declaration of Maritime Labour Compliance, Part I (DMLC I). This document contains references to the national laws and possible flag specific exemptions.

The shipowner / operator shall develop and implement measures to ensure on-going compliance with the national requirements in the ship-specific Declaration of Maritime Labour Compliance, Part II (DMLC II). This declaration is attached to the Maritime Labour Certificate and sets out the shipowner's or operator's plan for ensuring that the national requirements implementing the Convention will be maintained on the ship

Let's think of a fishing vessel with some catch in it. Now, if this vessel recovers a sizeable catch comparable to its own weight (unfortunately, which is not known beforehand) and is about to swing the catch inboard, a highly overweight cargo would cause enough instability to swing beyond to the other side causing an immediate opposite list. This roll might continue dangerously with reduced stability and vessel will be prone to flooding from an open hatch.

fixed Co2 system for galley, Fire Blanket, wet Chemical fire extinguishers, Emergency Stop outside Galley

Galley Emergency Stop:

Galley supply fan
Electric oven
Minor power distribution board
All Galley equipment

RISK is the "combination of the frequency and the severity of the consequence"

A tankscope is a device used for measurement of hydrocarbon gas content in a sample of given atmosphere.
This is meant for measuring hydrocarbon vapours in inerted atmospheres.
The reading is only percentage of the volume of the hydrocarbon vapour.
The principle is that, there is an alteration in the temperature of the heated filament which enhances the change of resistance.

43. CO2 extinguisher working safties Relief Valve, Safety Pin, Discharge Horn(Frost bites), dip tubes
44. Mlc chapters
45. Lifeboat safties drain plug, Fire portable Extinguisher, FPD, Release hook safety pin, Lifeboat lashing, Emergency tiller, Emergency release, Bilge pump, Sprinkler system, Self Contained Air system(Tanker) and all davit safeties
46. Tankoscop Hydrostatic piston interlock
47. Types of strake
48. Regulations related to Annex1 and certificate
49. Pressure switch Pyrotechnics used
50. On load off load procedure
51. Cofferdam and TPA(Regulations)
52. Types of ship Types of bulk carrier
53. Types of lifeboat
54. How to lower life boat
55. CO2 system safety
56. What will happen when CO2 cabinet door open audio visual alarm and ventilation trip
57. High pressure line ... purpose Where leakage oil get collected
58. Hazards in engine room
59. Why we can't do inerting in smaller ships with flue gas?
60. How we introduce IG in cargo tank.
61. Criteria for the selection of method.
62. Watertight Doors.
63. Sources of power for operation Hydraulic then accumulator or manual pump, if emergency or battery;
64. Backup power should give power to operate for how many times? 3 movements Close-Open-Close
65. LRIT. Can you track another ship visible near you using LRIT?
66. Tankscope
67. Marpol full form. Annex VI
68. What is inside of a container cargo hold
69. Lifeboat safeties Contents in lifeboat
70. How to pump out water from flooded lifeboat
71. Safeties in fire line, Why relief valve in fire line
72. Vgp and where it is req
73. Define hazards
74. 6 hazards in engine room
75. Fixed fire fighting system in your engine room
76. All hull markings of your ship starting from fwd port
77. Safeties in deck fire line
78. All certificates of isps, equipment required and full process
79. Use of cofferdam and where are they situated
80. Difference between deck and engine room sounding pipes and why
81. 1)Types of Alarm in Co2 room.
82. 2)Types of time delay in CO2 system.
83. 3)Location and significance of time delay in CO2 system
84. 4)Fire plan contents & use.
85. 5)Difference between AIS and LIRT & their working
86. 6)Safeties in co2 room

A) OFF-LOAD Release of lifeboat means that the load is off from the hooks. to release the lifeboat in this method the ship is lowered to the water. now the water pressure acts on the diaphragm placed underneath the lifeboat. this pressure moves the “coxwain release handle ” in green position. now the interlock placed in the hand lever is removed and handle is pulled to release the hook and the lifeboat is free to go.

ON-LOAD Release means that the lifeboat is released in any position or we can say that the lifeboat is released when the lifeboat hook is still in tension. for this the interloak is removed from hand lever and the glass protecting the “coxwain release handle” is broken. now it is moved to green side and now the hand lever is pulled to release the hooks and the lifeboat is set free.

What is VGP or Vessel General Permit?

The VGP is required for all vessels operating in U.S. waters
It establishes permit limits and conditions on 26 waste water discharges incidental to the normal operation of vessels.
It prevent discharges to the US inland waters such as rivers, lakes, streams, etc.
Waste water includes bilge water, ballast water, anti fouling hull coating, AFFF, boiler blow down, chain locker effluent, distillation and reverse osmosis brine, elevator pit effluent, etc.

padlocks, Hand held radio, anti piracy razor wire/barbed wire,high beam torch, Whistles, Dog leg mirror, metal detectors, ISPS seals,Baton, CCTV

Mast riser is a good option for venting arrangements for tankers carrying homogeneous cargoes such as crude oil tankers.

But for ships that carry different grades, it will not be a good option.

This is simply because the cargoes can get damaged if the vapours of different grades are allowed to mix by having a connection between the vapour spaces of the tanks

Markings on ship:
Name of ship, Bowthruster, Bulbous bow, Fwd draft lines, Tug Marking, Load line, Equilateral triangle on Bulk carrier, Pilot boarding point, Aft draft marks, Ships name, IMO no. Port Of registry

The stern tube must be enclosed in a watertight compartment formed by the stern frame and the after peak bulkhead

aft peak bulkhead is intended to enclose the stern tubes in a watertight compartment preventing any emergency from leakage where the propeller shafts pierce the hull. It is located well aft so that the peak when flooded would not cause excessive trim by the stern.

87. 7)Prevention of battery room fire.
88. 8) Aft peak bulkhead
1. Rise of floor
2. Freeboard
3. Reserve Buoyancy
4. Pipe Duct
5. Co2 room entry procedure
1. Block coefficient (defination not accepted)
2. Collision bulkhead Why L/20??
3. HYPERMIST SYSTEM & CROSS QUESTIONS
4. Co2 room entry procedure
89. 6.CO2 ROOM MOTOR SPECIFICATIONS
6. CO2 EXTINGUISHER
90. Why mast riser is preferable in product tankers
91. Pv valve working Engine room hazards
92. Aft peak bulkhead purpose
93. QCV arrangements, position onboard Haan .....
94. Why aft peak bulkhead is required. What does it do
95. 1.Escape means in passenger ship
96. 2.Lifeboat safety
97. 3.fitting in container cargo hold
98. 4.what is watertight doors,location oof same?
99. 5.How watertight fitted in bulkhead
100. 6.How watertight door make strenghten that can hold water pressure what are all fitting
101. how inert gas is introduced in tanks
102. Why inerting of bunker not required
103. Marpol full form
104. Vgp
105. Reserve power source for watertight doors
106. Reverse transom
107. What extra is on lifeboat of a tanker Centrifugal brake Deadman handle
108. Safety Difference in container and bulk
109. Life boat heaving mechanism and ratchet arrangement Limit switch
110. Torsion box Safeties of lifeboat Lowering and heaving time of lifeboat
1. Full form of marpol and name all annex?
2. Safety of lifeboat (Freefall) ? Cross question: What are internal Safety and External safety in lifeboat 3. How will you relase freefall lifeboat if hand pump is stuck or not working?
3. Define Hazard, Categories of hazard?
111. Gunwale, Bulwark?
112. Cross question: What all hazards are there in Engine room?
4. Different types of Garbage record books onboard ship?
113. Categories of Garbage? Cross question: What are the entries made in part1 and part2 garbage record book? What is the SI unit for Garbage to be disposed in incinerator?

Provided to enclose the stern tube in watertight compartment.
Aft peak bulkhead needs only to extend to first deck above load water line.
Plating must be doubled to resist vibration around stern tube.

The rise of the bottom shell plating line above the base line.

rise of floor enhances ship stability, reducing the risk of capsizing or loss of stability in varying sea conditions.

it reduces hydrodynamic drag, minimizing resistance and improving overall propulsion efficiency, resulting in fuel savings and reduced emissions.

Freeboard is the distance measured from the waterline to the upper edge of the deck plating at side of the freeboard deck amidships

500m3, 5l/m2/min

Reserve buoyancy can be defined as the volume of the enclosed spaces above the waterline.

By “Trochoidal Theory”, wave height from trough to crest is 1/20 of the wave length, therefore maximum shearing force usually occurs at about L/20 of ship from each end. For this reason, Collision Bulkhead is located at L/20 of the ship, so that it is not so far forward, as to be damaged on impact. Neither should it be too far aft, so that the compartment flooded forward causes excessive trim by bow.

For water tightness the doors may use a rubber O-ring type of packing or a wider rubber-lip type packing
.. or may seal by being wedged into the door frame “steel to steel

1. All LO tanks, HFO tank, DO tanks And Sludge tanks, Emergency generator room

3 movements of the door in case of black-out and hand-powered generator for local emergency operation

Backup power stored in hydraulic accumulator/or electric battery and emergency switchboard

A reverse transom is angled from the waterline forwards.

(2) Sliding watertight door frames must be either bolted or welded watertight to the bulkhead.
(i) If bolted, a suitable thin heat and fire resistant gasket or suitable compound must be used between the bulkhead and the frame for watertightness. The bulkhead plating must be worked to a plane surface in way of the frame when mounting.
(ii) If welded, caution must be exercised in the welding process so that the door frame is not distorted.

the upper edge of the side or bulwark of a vessel.

m3

Charging equipment to be free from dirt, overheating, loose connection and correct functioning of indicators.
Ventilation arrangement for battery locker to be checked.
The fans should be of non-sparking type and should not produce any static charge.
Independent exhaust fan to be provided
Inlet duct should be below battery level, and outlet at top of the compartment
Uses of externally fitted light or flameproof light
insulated spanner and plastic jug to prevent short circuit

A ratchet arrangement ensures that the drums will not reverse and drop the boat back towards the water in the event of a power failure when the boat is being hoisted.

S/g flat, Shaft tunnel, Fwd part of ship aft of collision bulkhead

5. Name 3 locations where emergency fire pump can be located on ship and 3 location from where it can be started? Bridge, Fire control station, Local
6. Weekly entries in ORB. Quantities of oil residues (sludge) retained on board. The quantity should be recorded weekly1

114. Q1) What are the fire safeties for galley?
115. Q2) What is striking plate and its purpose? Purpose of “STRIKER PLATE” is to prevent damage to the bottom shell plating.
116. Q3) What are the safeties of fixed CO2 system?
117. Q4) What is time delay in fixed CO2 system, its purpose and types of time delay possible? Electric, Empty Bottle
118. Q5) SOLAS regulations of lifeboat.
119. Q6) What is MARPOL? Its full form and name of each annexure
120. Q7) Certificates in MARPOL annex 6?
121. Types of fixed fire fighting system in ER
122. Ows starting procedure
123. Slop tank use and requirement
124. Heaving mechanism of lifeboat Hazards

1. Why fuel oil tanks not inserted
2. Full form MARPOL. Name all ANNEX
3. Tell all records onboard . (GRB,ORB 1-2, CRB)
4. What all mentioned on Cargo Record Book.
5. Certificates in ANNEX

125. Type of ship sailed Fire control plan Bank cushion effect
126. Lifeboatowering speed and how controlled
127. Life boat heaving up mechanism
128. Full form of Marpol

1. Squat effect
2. MLC 2006
3. AFT PEAK BULKHEAD
4. Regulation of Smoke detector
5. Ionisation type smoke detector
6. Product tanker safeties
7. Regulation for Hypermist type
8. Marpol Annexes
9. Certificate under Annex 6
10. Lifeboat Davit Safeties

129. MLC how many chapters and which?
130. what is hawspipe and spurling pipe?
131. fittings in hawspipe? Chafing ring, v/v for anchor wash
132. Function of bulkhead
133. Why mast raiser not preferable for product tanker?
134. Eebd and scba diff n xx
135. Pre donning checks scba
136. Marpol all Anexes all its certificates
137. Seepm? EEOI AND EEDI
138. ISM and its purpose?

STARTING
Take permission from chief engineer and take keys from Master. Inform bridge
> Open overboard valve, SW suction v/v and suction, discharge valve of Pump. control air and FW valve. Open bilge tank suc v/v
> Switch on the power supply of the control panel and OCM unit
> Fill the separator and filter unit with sea water to clean up and prime the system until the water comes out from the vent of the second stage
> Close the vents
> Start the OWS supply pump
> Monitor the OCM for ppm value and keep checking sounding of bilge tank from where the OWS is taking suction
> Also check the sounding of the OWS sludge tank
> A skin valve / sample valve is provided just before the overboard valve and after the 3-way valve. Keep a check on the sample for any effluent and clarity

STOPPING
> flush the OWS with sea water for at least 10 minutes
> Turn off the power supply of oil content monitor
> Flush the oil content monitor with fresh water and clean the same
> Turn off the electrical supply to the bilge pump and shut its valves
> Shut all the valves, Lock the overboard valve
> Inform bridge, handover keys
> Entry in oil record book, along with the signature of the operating Engineer, the chief engineer and the master

Functions of bulkhead:
To increase transverse strength of ship, particularly against racking
To divide the ship into watertight compartments.
To give protection against fire.
To prevent undue distortion of side shell.
To restrict volume of water, which may enter the ship, if shell plating is damaged.

The topside corner is also provided with a sloping bulkhead, and space is used for either storing another type of cargo or for storage of water ballast. These tanks are called upper wing tanks. The main purpose of providing the wing tank sloping bulkhead is however different.
This prevents cargo from shifting in the transverse direction and does not result in listing during transit.

139. 1.What is mlc. Its contents. Standard procedure if a person is sick onboard?
140. 2.why tanker has less freeboard.
141. 3.emergency bilge suction location and purpose and pipe dia?
142. 4.hopper tanks in bulk carriers purpose ,and location and structure
143. Safety Torsion box
144. Tpc Foam fire extinguisher relief
145. Ism isps difference
146. 1)how inert gas is introduced in tank
147. 2) Watertight bulkhead
148. 3)how u will pick up lifeboat mechanism

The bottom corner of the section is provided with angular tanks running along the length of the ship. These are called hopper tanks,
A hatch coaming is a vertical plating provided around the hatch opening.

doubler plate fitted around Water tight door

1. Why fuel oil tanks not inserted
2. Full form MARPOL. Name all ANNEX
3. Tell all records onboard . (GRB,ORB 1-2, CRB)
4. What all mentioned on Cargo Record Book.
5. Certificates in ANNEX 6

Water- tight :- Means prevention of leakage of water from a closed opening when the closure is subjected to a predetermined head of water.

Weather-tight:- Means prevention of leakage of water from a closed opening when the closure is subjected to a strong spray of water, such as a swell hitting a weather tight door

1. Squat effect

149. Water tight door and weather tight door difference
150. place where you can find on the ship Fire plan
151. position of emergency exit door, things which are kept around and inside emergency exit door
152. Marpol annexure - how many, name all,
153. certificates issued under annexure 6 of marpol
154. Maintenance of fire hydrant, why relief valve in fire line, location of reief valve in the fire line

Near Fire pump

155. Safety in scaba in face shield
156. Sprinkler systems regulation Mlc(he asked how many chapters
157. Co2 room regulation, safety in botel and cross
158. Why bunker tanks are not inerted?
159. Working of ows? How to start and stop?
160. Types of garbages? Entries in the garbage record book.
161. What is hazardous ship? Principle of IMDG code?
162. Container cargo hold structure construction?
163. What is Epirb full form and location?
164. Diff btwn hypermist and sprinkler and why not use sprinkler in er?
165. CAMBER and purpose?
166. Electrical fire which portable fire extinguisher used and explain precautions while using?
167. What is bank cushion effect?
168. How ig introduce to tank?
169. Why mast raiser is not important for oil product tanker?
170. What is bilge keel? Other implementation for minimising rolling? And cross questions

The IMDG Code was developed as an international code for the maritime transport of dangerous goods in packaged form, in order to enhance and harmonize the safe carriage of dangerous goods and to prevent pollution to the environment.

SK Paul

1) Lifeboat regulation,Life raft HRU release
2) Annex 1 certificates, SOPEP
3) Incinerator regulation
4) Slop tank regulation
5) free surface effect and how to reduce it unction-3

the unit shall be designed so that the temperature in the combustion chamber shall reach 600 degrees Centigrade within five minutes after start-up for batch feed. and 850 for continuous feed

1. Types of ship.
    1. 2.How to control container fire.
    2. 3.CO2 Room Inspection, safety XXXX
    3. 4.HRU functions
    4. Your vessel is stiff or tender. Why?
    5. Certificates in Annex VI 7. D/bw IAPP & EIAPP
    7. Disch. Sea food- which Annex.
    6. Type of ship
    7. Bulk carrier additional safeties
    8. Water ingress alarm
    9. Marpol annexure 1,3,4 discharge criteria
    10. Oil record book entry
    11. Oil record book entry
    12. Solas chapter all
    13. ISM Isps
    14. HRU
    15. Func 3 1.Special Fire fighting arrangements for containers.XX
    16. 2.Types of fixed fire fighting system onboard. Inspections done in CO2 room.XX
    17. 3.Cargo hold firefighting arrangement.Smoke extraction system.XX
    18. 4.SOLAS regulation for Emergency generator.
    19. 5.Flash point of fuel used and why ? b/c in tropic areas fuel temperature can reach upto 43C
    20. 6.Annex 1,4&5discharge criteria.XX
    21. 7.How sludge handled onboard, Can we burn sludge generted by LO purifier in incinerator, what and where you will make entry?
    22. Additional regulations for bulk carrier
    23. Solas regulations for emgcy generator
    24. What happens when loaded container kept in the hatch cover of cargo space
    25. What type of emgcy fire pump driven
    26. Regulations of ows
    27. Bdn regulations
    28. Fresh water allowance
    29. Tender and stiff ship
    30. Camber, tumble home,rise of floor
    31. EEBD and pressure,
    32. fire main line drain valve
    33. strake and types
    34. IOPP

According to Regulation 18 of Annex VI of the MARPOL Convention, all ships with a gross tonnage of 400 and more that receive consumable fuel (for burning in internal combustion engines) must take a document called "Bunker Delivery Note" and keep it onboard for at least 3 years.

Oil filtering equipment approved by the Administration and shall be such:

400GRT-10000GRT
as will ensure that any oily mixture discharged into the sea after passing through the system has an oil content not exceeding 15 parts per million.

>10000GRT
provided with alarm arrangements to indicate when this level cannot be maintained. automatically stopped arrangements when the oil content of the effluent exceeds 15 parts per million.

Bunker delivery note: must be provided to a ship of 400 gross tonnage and above receiving bunkers.
Name and IMO number of receiving ship
Port
Date of commencement of delivery
Name, address and telephone number of marine fuel oil supplier
Product name(s)
Quantity (metric tons)
Density at 15ºC (kg/m3)1 and flash point(if surveyor asks then only)
Sulphur content (per cent m/m)
A declartion by the fuel oil supplier's representative that the fuel oil supplied is in conformity with regulation 18.3 of Annex VI and that the sulphur content of the fuel supplied does not exceed:

strake: longitudnal section of plates

35. DCP USES and chemical name with its use, What will u do if powder not coming out?
36. SOLAS CHAPTER 6 EXPLAIN AND 2-3 more question
37. Seemp xxx
38. Bilge discharge ctiteria xxx
39. Emergency generator regulations xxx
40. Emergency generator power supply xx
41. Stable equilibrium, unstable equilibrium, neutral equilibrium
42. Effect of addition of mass on ship
43. Tender ship, stiff ship
44. ISPS levels xxx
45. Difference between isps level 2 and level 3 xxx
46. Bitter end and it's purpose (Easy to open- key word for him).
47. Information stamped on CO2 bottles
48. Safeties of CO2 bottles
49. Temperature at which bursting disc of CO2 Bottles operate
50. Steps to be done for operating CO2
51. Formula for calculating CO2 bottles. Requirements for CO2 bottles
52. No of immersion suit on board*** 0.56m3/kg, specific volume of co2
53. Class A & B B/H.
54. Steps to be done in case of engine room flooding.
55. MLC SOLAS Chap 12 detail. STCW
56. IMO bodies
57. What all can be operated from fire control station? Purpose of isolation valve in fire line
58. Frame spacings
59. HRu xxx
60. Racking and methods to reduce
61. Reserve buoyancy
62. Entries in logbook
63. BDN All bunker samples should be retained for a minimum of 12 months
    BDN should be retained for a minimum of 3 years.
64. How to mark the dents in the hull when on dry dock
65. Strakes,garboard,sheer and numbering of strake
66. Seemp xxx
67. Bilge discharge ctiteria xxx
68. Emergency generator regulations xxx Emergency generator power supply xx
1. Pressure of hypermist system 70bar pump/50 bar nozzle
2. Period checks of CO2 system
3. What to do before entering in Co2 room
4. Ammendment in co2 system
5. Free surface effect
6. What will happen to ship stability if container loaded on deck
7. Angle of loll
8. Freshwater allowance
9. Ammendment in SEEMP
10. What is bdn and what details are marpol specific in bdn

Emergency lightening to alley way /boat deck / engine room.
Navigation system
Steering gear
Emergency fire pump
Emergency air compressor
Battery charging
Fire detecting and alarming system
Radio equipments (Communication equipment)
Daylight signaling lamp and ship's whistle
Navigation Aids
General Alarm
Manual fire alarm
Watertight doors

63/177

Manufacturing
" * " means 10 year pressure test . If no " * " then pressure test 5 years.
Hydraullic test pressure and date
Weight and cylinder capacity.
Serial no:
Standard
Non flammmable
Empty bottle height

W - Manufacturer stamp/symbole
+ - fill 10% excess on psi
- 10 years testing, if no then every 5years hydrostatic test.
2005/03 - year/month of manufacture
6831611 - serial number
pw200 - cylinder pressure
5L- cylinder capacity
Stamp for testing lab

Fire control station:
QCV
Isolation v/v
Fixed CO2 releasing
Hypermist
Funnel flaps
Blower flaps
PA system
Communication system Telephone
Fire detection and alarm panel

Logbook entry:
Running details of Oil Pollution Prevention Equipment (Time and Position)
Record of any Major Breakdown and reason for the same.
Record of Incident or accident in the engine room (Fire, Flooding etc)
Record of grounding, collision and other accidents
Record of Major overhauling of important machineries
Record of all Bunkering operation (Time, Place and quantity)
Record of all Sludge and garbage disposal operation.
Remarks for additional work done in a watch
Remarks for Surveys and PSC inspection.

Bunker Delivery Note (BDN), which has evolved from the Bunker Delivery Receipt (BDR). Originally the BDR was used as a means to document quantity delivered from a supplier to a customer and provide evidence of receipt of product. MARPOL Annex VI, International Convention for the Prevention of Air Pollution from Ships, now requires certain information in a BDN. As well as being required for the above purposes, a BDN (as dictated in MEPC.176(58)) must also include the sulphur levels in the product, as well as delivered quantities.

69. Safety Full form of COSCPOOL type of ship sailed
70. How many emergency fire pump
71. Solas regulation for emergency fire pump

BDN must be maintained onboard the vessel for three (3) years.

72. SEEMP part 2
73. Difference between BDN and BDR
74. Fixed co2 system onboard, have you done regularl checks
75. What to do first for entering co2 room What type of ventilation is there Why suction from bottom Marpol recent annexes
76. What is ISM, comes under which convention and what chapter Solas
77. regulation of life boat Lowering and recovery speed as per solas
78. What is vessel general permit
79. types and contents in record Book ×× Rest
80. Static stability dynamic stability
81. Emg fire pump
82. Angle of loll
83. Gally fire action
84. Seemp Eedi Eeoi
85. 1.Build year and type of fire extinguisher
86. 2.Bulk carrier Annex 12
87. 3.additional safety regulations
88. 4.How to find volume of discharge in co2, what is 0.56 constant
89. 5.How to know the volume of co2 in co2 cylinder.
1. Pressure of hypermist system 11 bar/ 10bar
2. Period checks of CO2 system
3. What to do before entering in Co2 room
4. Ammendment in co2 system
5. Free surface effect
6. What will happen to ship stability if container loaded on deck
7. Angle of loll
8. Freshwater allowance
9. Ammendment in SEEMP
10. What is bdn and what details are marpol specific in bdn
90. Equilibrium condition xxx Tender ship xxx Period of roll
91. Panting beam why and how it is connected

Panting beams are fitted to resist the in and out motion of shell plating either side of fore and aft line and connected to the frames by triangular brackets.

92. Shedder plate..why and which kind of ship mainly have it Stringer plate
93. Epirb how it transmit signal
94. Eedi full xxx..eiap

Stringer plate: is a special strake of the Strength Deck plating. It is the strake that connects the Strength Deck to the Side Shell. The outboard strake of plating on any deck.

The base of the bulkhead is provided with a sloping plate called the shredder plate. The shredder plate prevents the accumulation of cargo at the base of the corrugations. provided in bulk carrier

Fire hose:
shall be of non-perishable material approved by administration
Each hose shall be provided with a nozzle and the necessary couplings
Fire hoses shall have a length of at least 10 m, but not more than:
1 15 m in machinery spaces;
2 20 m in other spaces and open decks; and
3 25 m for open decks on ships with a maximum breadth in excess of 30 m.
passenger ships, there shall be at least one fire hose for each of the hydrants
Cargo ships 1,000 gross tonnage and upwards, the number of fire hoses to be provided shall be one for each 30 m length of the ship and one spare but in no case less than five in all. This number does not include any hoses required in any engine or boiler room

Reserve buoyancy is the intact volume of the ship above the waterline and up to the uppermost continuous deck.

The freeboard deck is the uppermost continuous deck. Freeboard is the distance from the freeboard deck to the waterline.

Surveyor Wise Question Set(2021-23)

When the ship floats in water, an upward force acts on the ship, opposing the center of gravity. This force is called the buoyancy force. It is produced by the water around the ship.
The buoyancy force is equal to the magnitude of the weight of the water, displaced by the ship. This force enables the ship to float.

Ganguly

1. Fn3 Mob marker at least 2 on each
2. Reserve buoyancy Buoyancy
3. Annex 6 certificate Annex 6 pollutant
4. Green house effect
5. Decider-Annex 1 discharge criteria
6. Regulations of sounding pipe,air vent pipe
7. Regulations for emgcy generator
8. Purpose of bulbous bow
9. Location of Collision Bulk head and use
10. Safties on davit
11. Rise of floor and bilge strake
12. Requirements of fire hose and nozzle
13. Requirements of lifebuoy

1. psc & fsi
2. emergency fire pump
3. sounding pipe & air pipe regulation
4. Bullard & Capestern
5. bigle radius
14. 1.tender and stiff ship
15. 2.what is classification society and it's function
16. 3.function of diptube in portable co2
17. 4.sounding pipe and air pipe regulations.
18. AIR PIPE AND SOUNDING PIPE REGULATION
19. LIFE BOY REGULATION
20. CO2 SYSTEM MAINTAINANCE
21. SAFETY VALVE RELIEF PRESSURE

1. Emergency generator regulations
2. Capstan and bollard
3. PSC and FSI
4. Deadman handle
22. SBT,CBT,SLOP TANK SLOP tank capacity
23. Significance of plimsoll line
24. Life boat davit safety
25. Emergency fire pump regulation
26. Regulation of sounding pipe and air pipe
27. Slip and apparent slip
28. SOLAS requirement of IG
29. Marking on lifeboat and solas requirement and capacity of
30. Camber and freeboard why it is given
31. Marpol annex 6
32. How to check capacity of fire pump
33. Bulkheads

The wave produced by the bulb interferes with the wave produced by the stem, resulting in a reduced height of bow wave and consequent reduction in the energy required to produce the wave

The greenhouse effect is the process through which heat is trapped near Earth's surface by substances known as 'greenhouse gases. carbon dioxide, methane, ozone, nitrous oxide, chlorofluorocarbons, and water vapor.

Air pipes terminating on the open deck shall be fitted with approved air pipe heads.
The height of air pipes from the upper surface of decks exposed to the weather, to be not less than:
760 mm on the freeboard deck;
450 mm on the superstructure deck;
Air pipes are to be not less than 50 mm bore.
The open ends of air pipes to fuel oil and cargo oil tanks are to be furnished with a wire gauze diaphragm
air pipes are to be fitted at the opposite end of the tank to that which the filling pipes are placed and/or at the highest part of the tank.

The rise of the bottom shell plating line above the base line
Strake at the turn of bilge

bollard: strong vertical post fixed to deck for securing mooring lines
capestern: Strong vertical post, top part having rotating drum, for passing rope around drum

A bulbous bow is an extension of the hull just below the load waterline. It is of bulb like shape. create a wave system at the bow which partially cancels out the ship's own bow wave system, so reducing wave-making resistance. destructive interference.

dampens the roll movement

ankur sharma page no. 43

a non-governmental organization that establishes and maintains technical standards for the construction and operation of ships.
1. provide classification, statutory certification and services as a Recognised Organisation acting on behalf of a flag Administration,
2. carry out inspections and surveys of the ship at all stages
Indian Register of Shipping (IRS), American Bureau of Shipping (ABS), Bureau Veritas (BV), Bureau Veritas (BV), Lloyd's Register (LR), Class NK

o deliver liquid carbon dioxide outside the bottle

Size and types of nozzles:
standard nozzle sizes shall be 12 mm, 16 mm and 19 mm
For accommodation and service spaces, a nozzle size greater than 12 mm need not be used.
For machinery spaces and exterior locations, provided that a nozzle size greater than 19 mm need not be used.
Nozzles shall be of an approved dual-purpose type (i.e., spray/jet type) incorporating a shutoff.

The Plimsoll line is a reference mark located on a ship's hull that indicates the maximum depth to which the vessel may be safely immersed when loaded with cargo.

ankur sharma 138

Deadman handle
- Harbour pin
- Winch upper limit switch
- Drum brake
- Winch brake counter weight.

Name and port of registry
Capacity
Dimensions
Serial no
Manufacturer name and trademark
IMO no and call sign

Standard Fire Test
A standard fire test is a test in which specimens of the relevant bulkheads or decks are exposed in a test furnace in accordance with Fire Test Procedures Code. The specimen is to have an exposed surface of not less than 4,65 m2(50 square feet) and height (or length of deck) of 2,44 m (8 feet) & at least one joint.
At the end of the first 5 minutes – 556°C 560
At the end of the first 10 minutes – 659°C 660
At the end of the first 15 minutes – 718°C 720
At the end of the first 30 minutes – 821°C 820
At the end of the first 60 minutes – 925°C. 920

Slip: difference between theoretical speed and actual ships speed.
apparent slip: difference between theoretical speed and speed of ship.
real slip: difference between theoretical speed and speed of advance of ship.

Surveyor Wise Question Set(2021-23)

1. Self closing cocks
2. Striker Plate
3. self closing test cocks to ensure that the sounding pipe is not under a pressure of oil before opening-up the sounding cock
4. screw caps attached to the pipes by chains.

34. Items not to be burnt in incinerator
35. Pv breaker and cross
36. Sounding pipe safety

a watertight door can prevent the passage of water in both directions when subjected to a head of water

37. Regulation of water tight door
38. Hatch coming .. Hatchcover pressure test

With a 12mm diameter nozzle held at a distance of 1-1.5 metres from a hatch joint, moving along the joint at a speed of 0.5m/s.

39. Safety of life boat devit
40. SMC and doc

Longitudnal plate at the turn of the bilge .The upper edge is normally flanged to allow connection to the tank top plating, while the opposite end is secured to the inside of the shell plate by an angle-bar connection.

1. Stealer plate and margin plate
2. Fire hose and nozzle types detail. Size of hose.

41. 3.Dead man handle,why called dead man.If operator gets uncouncios what will happen?

1. capable of closing simultaneously from bridge in not more than 60 seconds when the ship is in an upright.
2. have an approximate uniform rate of closure. The closure time shall be in no case less than 20 seconds or more than 40 seconds with the ship in an upriight,

3. Classification society.details.
4. Watertight and weather tight door with regulations!

3. hand operation, during a power failure, must be closed within 90 seconds.

4. capable of closing with the ship listed to 15 degrees

5. provided with a local audible alarm shall sound for at least 5 seconds whenever the door is closed remotely but not more than 10 seconds before the door begins to move. The sound should be audible until the door is completely closed.

6. Controls for operating the door should be provided on either side of the door and bridge.

Reserve power for atleast 3 movements of door Close Open Close

42. Method to reduce rolling
43. Co2 fixed fire system maintenance
44. Scaba check and its weight
45. Angle of loll
46. Doc and smc
47. 1.class of fire and which fire which extinguisher use..and
48. what are the arrangement for gally fire.
49. 2 regulations for sounding pipe and air pipe.
50. 3 regulation for bilge holding tank
51. 4.classification society .
52. Semi portable fire extinguisher waight Portable fire extinguisher wait
53. 1-Difference between psc and fsi
54. 2- function of dip tube what happens if not present
55. 3- panting and pounding, how to prevent?
56. 4- anti rolling arrangements
57. 5-plimsoll mark
58. 1 air pipe for fuel oil tank and sounding pipe reg.
59. 2 fire hose and nozzle regulation
60. 3 segregated ballast tk and clean ballast tk
61. 4 slope tk
62. 1.class of fire and which fire which extinguisher use..and what are the arrangement for gally fire.
63. 2 regulations for sounding pipe and air pipe.
64. 3 regulation for bilge holding tank
65. 4.classification society
66. CB tank and clean ballast and slope tank
67. Emergency fire pump regulation and fuel capacity running and stand by
68. Life boy solas regulation
69. Load line convention and purpose
70. What are the requirements for Sounding Pipe?
71. Q. What about air pipe? Q. Air Pipe safeties?
72. Q. Save all Tray , purpose of that?
73. Q. Anti Rolling Arrangement?

GMDSS: Global Maritime Distress and Safety System
Cargo ships above 300GRT; Solas chapter IV makes mandatory
> used for alerting, Search and Rescue, establishes standards for sending distress signal in case of emergency
NAVTEX: warnings, rescue search etc.
Inmarsat: Sat comminiucation,
SART
EPIRB
Digital selective calling DSC using VHF

Portable Fire Extinguisher:
Ships of 1,000 gross tonnage carry at least five portable fire extinguishers.
The mass of portable fire extinguishers should not exceed 23 kg.
Each powder or CO2 should have a capacity of 5 kg, and foam and water of 9 l.
CO2 extinguishers shall not be placed in accommodation spaces.
For fire extinguishers capable of being recharged on board, the spare charges should be provided: 100% for the first 10 extinguishers and 50% for the remaining extinguishers but not more than 60.
For fire extinguishers which cannot be recharged by the crew, additional portable fire extinguishers should be provided in lieu of spare charges

there shall be provided a sufficient number of portable foam extinguishers (9 LIT) or equivalent which shall be so located that no point in the space is more than 10 m walking distance from an extinguisher and that there are at least two such extinguishers in each such space.

1. Hose water Test:
water spray from a nozzle of 12mm diameter is sprayed over the joint of hold and cover from a distance of 1m to 1.5 m with a pressure of 0.5 m/ second water jet.
requires two persons and hatch cover to be tested must be empty. leakage if very minimal cannot be identified by naked eye and cannot be performed in sub zero or cold weather.

2. Ultrasonic Test:
accurate. ultrasonic generator is kept inside a closed and intact cargo hold. A sensor of that unit is passed all over the compression joint and any low pressure area or point detected by the instrument can be a leakage point.
instrument is it is not normally kept onboard and qualified person is required to perform this test.

3. Chalk Test:
traditional method for testing hold cover compression, but it cannot test the water tight integrity of the hold. A layer of chalk powder is applied all over the steel back of the hatch and then the hatch cover is closed and tightened to its normal values.
The impression of chalk on the rubber packing is then studied to check lack of compression point shown by gap in the chalk marks.

74. Q. Bilge Discharge Criteria?
75. Q. Lifeboat Davit Safeties?
76. Q. What are SMC and DOC?
77. Bollard,
78. fairlead purpose
79. Bunker tank
80. venting arrangements
81. construction of vent
82. purpose of ball

Fairlead: A guide for a mooring line which enables the line to be passed through a ship bulwark or other barrier, or to change direction through a congested area without snagging or fouling.

83. Mesh in vent lots of cross qs
84. What happens to vent pipe of bunker tank if lightening strikes
85. Gm GZ
86. Shore coupling connections
87. Pyrotechniques
88. Why use rocket parachute flares if you have hand held flares... Difference between them

300m height high range visibility
30000Cd
40s
5m/s
no. 4/bridge 12

only 5-6 miles
15000Cd
1 min
10s under 100mm water
no. 6

KD sir

Ext : krishnendu das sir Int : srinivas sir

1) lsa code and chapters Chapter 3 Solas

Damage Stability
vessel margin line should not be submerged after the damage. Margin line is an imaginary line drawn 75mm below the free board deck.

Damaged Stability: Damaged stability, on the other hand, focuses on the vessel's stability after it has sustained damage or flooding

2) DCP powder portable ext How to recharge Checks carried out Magnesium sterate function

3) intact stability GM importance positive and negative

Intact Stability: Intact stability refers to the stability of a vessel in its undamaged condition, typically when it is upright and floating freely in calm water

4) stuatory certificates safety equipment Certificate Safety construction Certificate

5) loadlines Why Plimsoll mark Where centeline meets on

The Plimsoll line is a reference mark located on a ship's hull that indicates the maximum depth to which the vessel may be safely immersed when loaded with cargo.

6) name any 3 class Nkk IRS LR

cargo ship safety construction cert.
500GT and above
5 years, as per solas chap II; all about:

Cargo ship safety equipment Certificate
500 GT and above
2 years: as per Solas II, III

Intact stability criteria:
4. The righting lever GZ should be at least 0.20 m at an angle of heel equal to or greater than 30°.

5. The maximum righting arm should occur at an angle of heel preferably exceeding 30° but not less than 25°.

6. The initial metacentric height GMo should not be less than 0.15 m.

RK Paul

1. How to load containers in holds cross
2. how to prevent lateral movement of containers in holds to rolling
3. Fire detection system in cargo holds Cross
4. which type of detectors in cargo holds
5. Loadline conventions For ship more than 24m length, divided in 3 annexes, Int. load line certificate is issued.
6. STCW connections
    1) Stiff and tender shipxxx
7. 2)What is rolling and why ship rollxx
8. 3)pllimsole line.. Scantlines xxxxxx
9. 4)ispc code solas chapter

Roll: side to side rotation of a vessel about its longitudinal axis/linear motion Surge
Pitch: up/down rotation of a vessel about its transverse axis/ linear motion sway
Yaw: turning rotation of a vessel about its vertical axis/ linear motion Heave

International Convention on Standards of Training, Certification and Watchkeeping for Seafarers: establish basic requirements on training, certification and watchkeeping for seafarers on an international level. Total 8 Chapters

The Plimsoll line (also known as a Load Line or the International Load line) is a reference mark located on a ship's hull that indicates the maximum depth to which the vessel may be safely immersed when loaded with cargo.

Surveyor Wise Question Set(2021-23) line is found midship on both the port and starboard hulls based on the principle of reserve buoyancy, although it was recognized then that the freeboard should also ensure adequate stability and avoid excessive stress on the ship's hull as a result of overloading.

10. 5)isps certificate name
11. 6)what is time delay in co2 room and how it is provided
12. Ship security action Man overboard action Battery room ventilation
13. 1 csr

tube through which anchor chain is led overboard from the windlass to ship side.
A doubling plate is fitted around it at the forecastle deck and a chafing ring at the ship side

14. 2 hawse pipe
15. 3 how hawse pipe dia is built

diameter of the hawse pipe should be 10 times the anchor chain diameter
Diameter of the spurling pipe should be 8 times the anchor chain diameter

16. 4 isps and xxxx
17. 5 sea chest mounting and xxxx

MOB action:

shout MOB, Raise alarm, seek attention of bridge. throw the nearest lifebuoy and keep holding sight of person OB
Bridge will drop MOB marker, mark the MOB position, and initiate williamson turn
additional lookouts posted. Also will sound three long whistles
all crew mustered. rescue boat prepared. and lowered and person rescued. TPA worn and brought onboard and first aid.

Co2 Pilot cylinder weight: 1.8Kg

breast hook: A triangular plate bracket joining structural members of the port and starboard sides at the stem.

upright ship: ship with no list, no heel and where COG and COB on same line.

Extreme breadth – The maximum breadth over the extreme points between port side and starboard of the ship.
Moulded breadth – The maximum breadth of the ship measured between the inside edges of the shell plating.

Bhattacharya

1. Lifebouy regulations
2. sounding pipe,air pipe reg xx
3. saveall tray xx
4. antirolling arrangemnt on ur ship xx
5. fire pump reg xx
6. air pollutants from ship, source xx
7. 1)HRU HOW IT WORKS,WEAK LINK
8. 2)SMS
9. 3)SOLAS REGULATION FOR EMERGENCY GENERATOR

1. Emergency generator and emergency switchboard should be located above the uppermost continuous deck aft of collision bulkhead
2. Emergency switchboard should be in same place where the emergency generator is located.
3. Driven by a suitable prime mover with an independent fuel supply having flash point more than 43 degree Celsius.
4. Should be capable of giving power to the cargo ships for atleast 18 hrs and passenger for atleast 36 hrs.
5. Emergency generator should be easily started at zero degrees and if temperature is below this, heating arrangement should be provided.
6. It should come on load automatically within 45 seconds after the failure of main power supply.
7. Should give full rated power, when ship is upright and when inclined at any angle of list up to 22.5 degrees or inclined 10 degree either aft or forward.
8. Should have two independent means of starting:
1. Primary means is Battery: capable of providing 3 consecutive starts.
2. Secondary means is either pneumatic, hydraulic or mechanical: capable of providing 3 consecutive starts within 30 mins

10. 4)PUMP ROOM BILGES HOW TO PUMP OUT OVERBOARD

Pumproom bilges should be pumped out to the slop tank after each cargo discharge

11. 5)OWS WHICH TYPE OF PUMP AND WHY
12. 6)DECK FIREFIGHTING IN TANKER

tendency to churn the fluid. If used in an OWS, it will furthur mix the oil and water together and cause emulsification reducing the efficiency of separation.

13. Midship.

1. The cross section through the ship, midway between the forward and after perpendiculars

14. Checks on SCBA before donning.
15. Rise of floor.
16. Hypermistxxxxx.
17. EEDI annex-6
18. Life raft launching and solas regulationsxxx
19. EEBDxxxx Enclosed space and entryxxx
20. SCBA whistle test.

anti rolling arrangements: bilge keel, anti-rolling tanks (active or passive), stabilizing fins (retractable & active).
1. bilge keels also increases the hull area & resistance to roll, thereby reducing the amplitude of roll. also causes turbulence.
2. Passive anti rolling tanks:partially filled tanks conneted with sluice v/v, partially filled so GM reduces and rolling period increases also liquid moves from one tank to other dampening
3. Active tanks: fitted with pump which water from on tank to other by pump. boyh tanks connected.
4. Fins: same actuated by electro hyadraulic actuator and gyroscpe and generate lift

21. Some questions from portable fire extinguishers like capacity, safety
22. Why do we use water as extinguishing medium.

When the lifeboat is fully waterborne, the lifeboat can be released by removing the safety pin and then pulling the release handle fully and quickly to the open position (off-load release). The lifeboat can also be released by the same operation of the release handle even though the lifeboat is not fully waterborne, by opening the interlock cover and lifting up the interlock lever. This over-rides the interlock function of the hydrostatic interlock unit (on-load release).

1. Type of ship and xxx
2. Regulations of hoses and nozzles
3. Types of bulkheads and differences between them
4. Regulations of sounding pipe and air pipe
5. Onload and offload mechanism and fuel tank capacity of life boat engine.

23. CO2 bottle pressurized more what will happen?

operation of the release handle is not allowed by the hydrostatic interlock unit when the lifeboat is not fully waterborne.

24. Bilge keel Duct keel Sewage discharge criteria

Duct keel is provided in double bottom hull ships and consists of solid plates welded into a box shape, forming an internal watertight passage running along the length of the ship, usually from collision bulkhead to forward engine room bulkhead. It is formed by two longitudinal girders which should not be less than 1.83 m apart.

Save all trays: All fuel oil machinery i.e. pumps, filters, purifiers, Air vents have the tray under them to collect any leakage if occurs. The drain of the tray goes into sludge tanks.

Surveyor Wise Question Set(2021-23)

1. Fp and AP 2. EEDI 3.things which are not incinerated 4. How will u come to know that ingress of water in bulk carrier 5. What will happen if co2 room temperatures exceed above it slimit.
25. Permeability volume of a compartment into which water may flow if the compartment is laid open to the sea. Described as percentage of empty volume of compartment
26. Fire control plan
27. Lifti g a container using ship's crane what dangers
28. Co2 bottle when refilled? 10 yearly and when 10% reduction in weight
29. Starting incinerator
30. Remove flexible pipe how to stop co2 escape from bottle By Plugging or blinding the hole
31. Ism code purpose to establish international standard for safe management, operation and pollution prevention of ship. and to prevent human loss and injury.
32. Bilge keel
33. Types of fire ABCDK, ABCDF
34. Loading in cargo tanks with high rate what will you do to overcome inside pressure
35. What is midship
36. What we don't incinerate
37. How ows ovbd vv is controlled How much time delay 20s maximum. 5s for 15PPM alarm
38. Lifeboat marking BDN >Ship name or call sign
39. 1Midship >Port of registry of the ship
40. 2Metaceter >Dimension(LxBxD)
41. 3Why co2 have dip tube ensure release and prevent icing >Carrying capacity
42. 4If fire have to engine room what to do > Makers name and trademark
43. 5Is water to cargo hold of bulk carrier how will u know >Sr.No.of ships boat
44. 6What are the sensor use in this system water level detector; on conductivity principle
45. Bilge Keel, location and purpose Dampen the rolling motion of the ship
46. How to release CO2 in ER • Increase longitudinal strength to bilge strake.
47. What is fwd and aft perpendicular • Protect bilge while grounding
48. How to use scba and prechecks, and alarm testing
49. Ism code and its purpose The foam solution, also known as premix solution, is the appropriate mix of water and foam concentrate. A 3% ratio means that 3 parts of foam concentrate are added to 97 parts of water to obtain 100 parts of foam solution.
50. Dip Tube purpose in fixed CO2
51. ISM code purpose AFFF foams is composed of a thin aqueous film which spreads rapidly above the fuel surface separating the fuel from oxygen supply. Foam extinguishes by Smothering and Cooling
52. Perpendicula
53. CG change with Load shifting from lower level to upper level
54. All LSA Onboard Expansion ratio: It is the ratio of volume of foam produced to the volume of foam solution.
2. Lifeboat lowering speed 36m/min
3. How lowering speed controlled by centrifugal brake Low expansion foams: up to 20:1
4. What brakes are there in lifeboat Manual brake. Medium expansion foams: 20:1 to 200:1
5. Foam expansion on Deck High expansion foams: Above 200:1, normally up to 1000:1
the foam will fly with the wind and will not be able to extinguish the fire.
6. SOPEP 7. SMPEP AFFF: apart from the foam bubbles, this foam makes an aqueous film over the surface that spreads across the surface of hydrocarbon to extinguish the fire.
7. Types of Rudder Balanced rudder: as 20-40% of the area forward of the stock
8. Why Semi balanced used ? Semi balanced rudder: 20% of the area forward of the stock
55. Tender and stiff ship? Unbalanced rudder: all area aft of rudder stock
56. Annexe 6 certificate
57. Eebd and scba?
58. Panting? and at which point it's effect of ship Forepeak structure. In and out movement of bow plating
59. 1.Bilge keel, location, purpose, construction. Ships hull + ground bar+ Bilge keel at turn of bilge butt welding

1. allows the rudder to be moved with less effort than is necessary with an unbalanced rudder
2. semi-balanced rudder returns to the centreline orientation on its own if the steering gear equipment fails during a turn.

The ratio of the depth to width of a rudder is known as the aspect ratio and its value is generally 2.

bulkhead is connected to the tank top by a bulkhead stool, which is fillet welded to the tank top plate
angle of corrugation is normally about 45 degrees.
troughs are vertical on transverse bulkheads
Diaphragm plates to strengthen and maintain corrugations

60. 2.Fixed co2 cyl diptube n reason Shedder plates in bottom
61. 3.Co2 discharge rate 1 min 50%, 2 min 85%
62. 4.Aft n fwd perpendicular
63. 5.ALL LSA onboard
64. 6.Incineration prohibited items by IMO MARPOL
65. Bilge keel its construction and purpose.
66. Corrugated bulkhead its construction and purpose.
67. Fire in dip tray. What will be your action and how will u extinguish.
68. Dip tube.
69. Midship section
70. Starting of incinerator
71. Which annex deals with sewage Description of annex
72. 4 CO2 room motor burner what will u check for new motor specifications
73. How to know water ingress in bulk carrier rest forgot

IMO No. 7 digit no. remains unchanged throughout its vessel life. Change of owner, operator, flags,.
Every ship 300GT and above. Solas Chap XI

1. When do you refill a CO2 bottle?
2. How do you prevent CO2 escape from bottle after the removal of flexible pipe?
3. How do you start an incinerator?
4. What is the location and contents of fire control plan?
5. What is the permeability of an enclosed space?
6. What dangers arise when you try to lift a container using the ship's crane in a small ship?

74. 1Midship
75. 2Metaceter
76. 3Why co2 have dip tube
77. 4If fire have to engine room what to do
78. 5Is water to cargo hold of bulk carrier how will u know What are the sensor use in this system
79. SART AND EPIRB ORB and cross
80. Anexx 1. Fire control plan and what does it contain. Where is it kept.

SK Dutta

DCP captures these free radicals and slow down chain carriers. Due to breaking the chain reaction fire will no more

1) working of fixed dcp system, principle of operation, where it is used
2) fire fighting system used in lng/lpg ship
3) working of hypermist system, principle of operation

1. 4) why hypermist is preferred over sprinkler glyecrien based fluid/Ethanol

4) sprinkler system working and material used for const of quartzoid bulb, principle of operation. 'Boiling Liquid Expanding Vapour Explosion' (BLEVE).
5) bulbous bow function
6) TPC BLEVE: explosion caused by the rupture of a vessel containing a pressurized liquid above its boiling point.
7) discharge criteria for bilges under marpol annex 1 .

When projected onto fire, extinguishing dry chemicals actually interfere with the combustion chain reactions to hinder their propagation: the larger the surface area on contact between flames and a dry chemical, i.e. the smaller the powder particles, the more effective is the dry chemical itself as a fire extinguishant. When the above-indicated phenomena occur and free radicals are reduced, there is corresponding progressive decrease of the combustion reaction; the whole process cul

2. Dip tube
3. Garbage discharge criteria full
4. Hopper tank
5. How DCP extinguishes fire smothering by co2, Inhibition by trapping Free radicals
6. SOLAS regulation for Isolation valve

Isolating valves shall be fitted in an easily accessible position outside the machinery spaces should separate the section of the fire main within the machinery space.
For tankers, isolation valves shall be fitted at poop front in a protected position and on deck every 40 m.

Surveyor Wise Question Set(2021-23)

Cofferdam: empty compartment is provided between the tanks to prevent two different liquids from mixing with each other. This space is known as a cofferdam.

Void space" is an enclosed space in the cargo area external to a cargo tank, except ballast space, fuel oil tank, cargo pump or compressor room, or any space in normal use by personnel

7. Type of ship Maintenance of CO2 system
8. Panting(Resisting arrangment), Pounding,
9. Cofferdam, Void Space
10. ODS
11. Sewage discharge criteria
12. Why dip tube used in co2 bottle Function
13. 3 All about sprinkler system
14. Fire in galley, your action
15. Dynamic stability and static stability
16. Garbage discharge regulation

International Pollution Prevention Certificate for the Carriage of Noxious Liquid Substances in Bulk

Mukherjee

Sprinkler, self contained air system and fully enclosed

1. Specifications of tanker lifeboat?(Cross questions on sprinkler system)
2. Anexx 5 certificate?(No certificate only documents)
3. Shear strake? Strake? uppermost strake of side shell plating a section of plating in longituddnal direction is called strake.
4. Tender and stiff ?
5. Difference between stiff and unstable ship?
6. Camber
7. Freeboard EEBD n scba(cross)
8. Lifeboat engine regulation
9. Anex2 certificate
10. TEU
11. Anexx6, certificate, document IAPP AND EIAPP difference
12. Sheer strake and signifance
13. Stealer plate
14. Stable and unstable difference
15. Offload and onload mechanism
16. If dip tube not there in co2 what will happen
17. Safety Pump room safety
18. Annex 1 and discharge criteria
19. Lifeboat all contents and before lowering what all the checks
20. Ism purpose and certificates
21. Garboard starke
22. Tanker lifeboat safety
23. Annex 5, certificate and documents
24. Why CO2 is released in such a high rate?
25. Shear strake Stealer plate
26. Deadman handle why deadman handle
27. Fire plan location ,purpose every thing about this.
28. Sounding pipe and air pipe regulation
    1) Type of ship
    2) On which chapter of Solas your cargo comes under.

> Compression ignition engine.
> Fuel used in it has a flash point of 43 degree C or less.
> Min fuel lasts 24hrs at 6kts.
> A manual starting system
> Power starting system with two independent rechargeable sources.
> Power starting can be by using accumulator batteries or hydraulic.
> starting engines at -15 degrees C within 2 min
> The engine can be capable of operating when a lifeboat is flooded upto waterline of the crankshaft.
> The exhaust pipe outlet is located well clear of waterline.
> Engine should be capable of operating for not less than 5 minutes after starting from cold, with the lifeboat out of water.
> Min speed of 6kts and 2kts when towing a 25 person liferaft.

Sheer strake: upper strake of plating adjacent to the strength deck.
of higher thickness and strength than other strakes. necessary to avoid welded attachments to this strake or cutouts which would introduce stress raiser As the sheerstrake is at a large distance from the neutral axis it has a greater thickness than the other strakes of side shell plating. The upper edge is dressed smooth.

stringer strake: outside strake of deck plating which connects to sheer strake

Stealer plate: In iron shipbuilding, the end-plate of a strake of outside or inner-bottom plating which is dropped out as the girth of the vessel narrows toward the ends. It is place where 2 strakes merge into 1.

Coffin plate: the plate joining two side plates over the keel of a vessel at the stern which in plan view creates a shape similar to a coffin lid.

Compass
Signalling Mirror
Embarkation Ladder
Dipper
Plug
Hook
Canister (Drinking Water)
Bucket
Lifeline
Plastic Ball
Emergency Food Ration
Axe
Emergency Drinking Water
Lifeboat Launching Roster
Boat Oars
Safety Matches

Point of sublimation will reach and phase will be converted and CO2 will convert into ice and further lead to chocking of lines.
• Efficient blanket will not be formed if more than 2 minutes.

Stealer Plate:
1. At end of ship, width of plates is decreased.
2. To save making plates too narrow at end of ship, it is usual to run two adjacent strakes into one. This is done by a stealer plate.
It is place where 2 strakes merge into 1.

3) How floors are arranged on ship, where it is used, are they strengthening members?
4) Prismatic coefficient Block coefficient
5) Deadman handle Deadman alarm
8) No of Chapters in Solas., Which are new chapters. 13,14
9) Which chapter of Solas deals with lifesaving appliances.
10) Where are the regulations given for firefighting equipment.

29. Freeboard
30. Margin plate Margin line
31. Types of break in life boat how it's work
32. Dip tube work in water type extinguisher
33. Regulations Discharge criteria of machinery space in special area
34. Additional safety on lifeboat of tankers And why?
35. Container not in hold lifted by crane above the deck change in centre of gravity?
36. Container lashing?
37. Fire in lifeboat?
38. Msb safeties
39. Liferaft marking
40. Marpol pollutants
41. Watertight door and weather tight door
42. Gas carrier question
43. Cofferdam
44. aft peak bulkhead
45. Container ship cargo hold fitting
46. Fire control plan
47. Bank cushion effect
48. Lifeboat lowering speed and how controlled
49. Life boat heaving up mechanism
50. Full form of Marpol
1. Life Boat speciality for Oil Tankers
2. Panting Stresses, how to provide strengthening
3. Function of Dip tube in portable extinguishers
4. Certificates not issued in which all annex.
5. Free surface effect, how to reduce.
51. Ism purpose it's certificate and cross
52. Tinder ship and stiff ship difference
53. Bilge keel
54. Inclining experiment
55. FREE SURFACE EFFECT
56. IN WHICH ANNEXE THEIR IS NO CERTIFICATE 3,5
57. LOWERING AND HEAVING SPEED OF LIFEboat 36m/min and 0.3m/s
58. 1.Releif hole location on foam type fire extinguisher
59. 2 .Satutory certificate
60. 3Additional safety on bulk carrier
61. 6 green house gases

Lifeboat fire by DCP Extinguisher

when a weight is lifted by a crane, its weight acts on the fulcrum – that is, the end of the derrick of the crane. This also means that once a weight (suppose, a container) is lifted from the berth, the weight of the container acts through the end of the derrick (which is a fixed point with respect to the ship) final centre of gravity of the system (G1) will lie on the line joining the initial CG of the ship (G) and the centre of gravity of the weight (g). Now, since the final CG of the ship has shifted from the centreline, it will create a heeling moment towards the port side.

done Fleet mon

International Convention for the Control and Management of Ships' Ballast Water and Sediments
> prevent the spread of invasive species and pathogens in ships' ballast water
> All ships
> Ballast water management plan: ship specific, procedures and methods to implement BW conventions
> Ballast water record book: record when ballast water is taken on board; circulated or treated for ballast water management purposes; and discharged into the sea. It should also record when ballast water is discharged to a reception facility and accidental or other exceptional discharges of ballast water;
> International Ballast Water Management Certificate - (ships of 400 gt and above)
> standards: D1 D2
D-1 standard - The D-1 standard requires ships to conduct an exchange of ballast water such that at least 95% of water by volume is exchanged far away from the coast. 200m depth and 200 nautical miles
Sequential, Flow through and Dilution. 3 times volume of tank
D-2 standard - The D-2 standard specifies that ships can only discharge ballast water that meets the following criteria: achieved through BWTS
Physical Separation, UV Systems, Chemical Treatment, Deoxygenation, Cavitation Treatment

62. Difference between Stiff and Tender ship
63. Inclining experiment
64. Certificates under Annex 6 and validity
65. In some extinguishers there is pressure gauge ?why and which fire extinguisher has it? stored pressure type except Co2
66. Min.flash point of fuel oil for emergency fire pump and lifeboat and Min. Flash point of fuel oil for aux.engine and main engine? Em fire pump 43-60, LB/RB- 43, ME/AE- 60
67. Pyrotechnics and their duration of working and how many? rocket parachute: 40s, flare: 1 min, Buyont smoke 3min
68. Static brake deadman handle How we control lowering of life boat Lowering speed of lifeboat
69. How diptube functions, if not present then what will happen
70. Stren frame function 1. supports the tailshaft and the rudder of a ship
71. Annex 6 pollutants 2. Stern frame carries the boss and supports the after end of the sterntube.
3. suit the form of the hull and stremlined to reduce the turbulence of water.
72. Heel and list difference
73. Hru,where you see and how it works
74. Why Co2 time delay is given
75. Sheer strake any speciality
76. Aneex 6 and certificates and their validities
77. Additional safety on lifeboat of tankers And why?
78. Container not in hold lifted by crane above the deck change in centre of gravity?
79. Container lashing? mass lying on the Deck is being discharged by a derrick, as soon as the mass is clear of the Deck, its center of gravity is raised to the derrick or crane head, thus causing the equivalent rise in the center of gravity of the ship.
80. Fire in lifeboat?
1. Life Boat speciality for Oil Tankers
2. Panting Stresses, how to provide strengthening.
3. Function of Dip tube in portable extinguishers
4. Certificates not issued in which all annex
5. Free surface effect, how to reduce.
81. How to release life raft
82. Hyper mist
83. Sopep location and what it contained
84. Full form of SCBA and what it contained SCBA
1. Type of ship
2. Lifeboat lowering speed
3. How lowering speed controlled
4. What brakes are there in lifeboat
5. Foam expansion on Deck
6. SOPEP SMPEP
85. Types of Rudder
86. Why Semi balanced used ?
87. Tender and stiff ship?
88. Annexe 6 certificate?
89. Eebd and scba?
90. Panting? and at which point it's effect of ship?
91. Flame arrestor vs flame screen

Flame arrester
A permeable matrix of metal, ceramic or other heat resisting materials which can cool a deflagration flame, and any following combustion products, below the temperature required for the ignition of the flammable gas on the other side of the arrester.

Flame screen
A portable or fitted device incorporating one or more corrosion resistant wire woven fabrics of very small mesh which is used for preventing sparks from entering a tank or vent opening or, for a short time, preventing the passage of flame.

92. Length of fire hose in ER and Max length of fire hose on ship 10-15 in E/R, On deck Max 20m. if beam is more than 30m then 25m hose
93. 1.Sludge pump starter button (4 places wanted to hear)

Local, Near Incinerator Waste Oil Tank, ECR, Emergency Stop Near Bunker manifold

BUOYANCY is the upthrust exerted by the water on the ship and depends upon the volume of water displaced by the ship up to the waterline.

RESERVE BUOYANCY is the potential buoyancy of a ship and depends upon the intact, watertight volume above the waterline

Surveyor Wise Question Set(2021-23)

94. 2.CLASS D FIRE Metal fire
95. 3.LIfeboat lowering speed
96. 4.Annex 3 name certificate and equipment s
97. 5.stiff ship and tender ship.
98. LBP? Fwd perpendicular and aft perpendicular
99. What is displacement? weight of the water displaced by the ship
100. What happens when vessels move from SW to FW
101. Intact stability?
102. Reserve buoyancy?
103. Purpose of freeboard and its relation with reserve buoyancy
104. Security lev 1,2,3 explain in detail Security sertificate issued ISSC
105. Types of garbage onboard and restrictions

VOC reduction measures:
Reduced volatility
Vapour balancing
Thermal oxidation
Absorption
Adsorption
Membrane separation
Cryogenic condensation
Cargo pipeline partial pressure control
Sequential transfer of tank atmosphere
VOCON procedure

Mitra

1. Type of ship
2. Torsion box xx
3. Types of bulkhead xxx
4. Types of certificates Statutory certificates, Mandatory certificate
5. Alarms in cargo hold
6. Marpol annexe and certificate 2 to 3 more questions on certificates carried xxx too much why Question
7. All solas chapter name
8. Explain solas chapter 12 and regulations
9. Document in Annex 6 and pollutants.and (how to reduce Nox and Sox)and waht is nox techiqual file
10. Fire Detection system in cargo hold
11. pyrotechnics (explain prachute flares)
12. what is EEDI.
13. What is annex 1, tell discharge criteria. ,how will u isure it's 15ppm
14. annex 6 certificate and cross questions was sub certificate of EIAPP
15. purifier room fire which portable extinguisher will u use ,cross questions was expansion ratio of high expansion foam and low expansion foam ,which one u use
16. strake , type of strake
17. lenght between perpendicular
18. HRU working ,cross questions, what is weak link,how life raft will inflat,
19. Rescue boats and life boat difference, dimensions and all ,
20. Fire detection in pump room
21. IG alarms and trips
22. Difference between PV valve and PV breaker
23. What is VOC?
24. What will you do to the generated VOC
25. Bwm
26. Fire in accommodation Fire in electrical

A lifeboat may be accepted as a rescue boat, provided that it and its launching and recovery arrangements also comply with the requirements for a rescue boat.

Volatile Organic Compounds (VOC) are light components of crude oil, which evaporate during loading operations or during the carriage of high-volatility crude oil cargoes.

The VOC Management Plan is ship specific and provides written procedures for minimizing VOC emissions during conditions of loading of cargo, sea passage, and discharge of cargo.

Ionization smoke detectors use americium as a source of alpha particles. Alpha particles from the americium source ionize air molecules. This makes some particles positively charged and some negatively charged. Two charged plates inside of the ionization smoke detector create a flow of positively and negatively charged ions. The smoke alarm triggers when smoke breaks the constant flow of ions.

document that contains information about the engine's components, settings and operating values that influence its nitrogen oxides (NOx) emissions prepared by the engine manufacturer and approved by the Administration. range of allowable adjustments dentification of those components, settings and operating values of the engine, Specifications of those spare parts/components

Scrubber low level
Deck seal High level
Low O2 Content (1%)
High O2 Content (5%)

Requirements for ships of less than 400 gross tonnage in all areas except the Antarctic area 6 In the case of a ship of less than 400 gross tonnage, oil and all oily mixtures shall either be retained on board for subsequent discharge to reception facilities or discharged into the sea in accordance with the following provisions:

.1 the ship is proceeding en route;
.2 the ship has in operation equipment of a design approved by the Administration that ensures that the oil content of the effluent without dilution does not exceed 15 parts per million;
.3 the oily mixture does not originate from cargo pump-room bilges on oil tankers; and
.4 the oily mixture, in case of oil tankers, is not mixed with oil cargo residues.

Clear grounds exist when a Port State Control Officer finds evidence, which in his/her professional judgement warrants a more detailed inspection of the ship, its equipment or its crew. The absence of valid certificates or documents is considered a clear ground.

Surveyor Wise Question Set(2021-23)

27. Ism code
28. Bilge keel
29. How to calculate GM of ship(Incling experiment)
30. Fire detection arrangement in pump room
31. Annex1 criteria cross ques(what about ships less than 400gt)
32. IG alrms
33. Deck seal function
34. Isps solas chapter Security level
35. Emergency fire pump regulations
36. Marpol annex 4 discharge criteria and bod range
37. Bulbus bow
38. Accommodation smoke detector type and working
39. Class A bulkhead
40. Dpa Emergency preparedness
41. 1.What are hopper tanks? When are upper hopper tanks ballasted? What happens to the Cg?

High Level in scrubber leads to alarm and shutdown of blower and scrubber tower
• Low pressure SW supply Scrubber (0.7 bar) alarm& Shutdown blower
• Low pressure SW supply Deck seal (1.5 bar) alarm and shutdown blower
• High inert gas temperature (70 deg C) leads to alarm and shutdown of blower
• Low pressure in line after blower (approx. 250mm wg)alarm and shutdown of blower
• Oxygen content high (8%) leads to alarm and shutdown of gas delivery to deck
• Low level in deck seal leads to alarm and shutdown of gas delivery to deck
• Power failure leads to alarm and shutdown of blower and scrubber tower
• Emergency stop leads to alarm and shutdown of blower and scrubber tower

2. Types of floor plates. Where are solid floor plates used? Free flow of liquid is allowed or not?
3. External stakeholders of ISM.

Flag Administrations, external auditors and training institutions.

4. Requirements for ballast water management

International Convention for the Control and Management of Ships Ballast Water and Sediments.

42. 5.Clear ground in PSC.

BOD/COD

Biochemical oxygen demand is the amount of oxygen consumed by bacteria and other microorganisms while they decompose organic matter under aerobic conditions. 25mg/L

Sewage:
Coliforms – up to 100 CFU/100ml
Total Suspended Solids (TSS) – up to 35 mg/l
Biological Oxygen Demand (BOD) – up to 25 mg/l
Chemical Oxygen Demand (COD) – up to 125 mg/l
Chlorine (Free) – up to 0.5 mg/l
pH – between 6.0 – 8.5

B.K.Roy

amount of oxygen that is required for the chemical oxidation of the organic and inorganic chemicals present in the wastewater is called as chemical oxygen demand (COD). 125mg/L

1. Purpose of top side tank in bulk carrier. Why is the shape of the top side tank triangular not flat.
2. Buoyancy nd reserve buoyancy. Cross question
3. Metacentre and metacentric height. How it affects stability.
4. Stable, unstable, stiff, tender ship.
5. SOLAS all regulations.
6. Stcw all regulations 8 chapters
7. GMDSS and ISM
8. Life boat testing.
9. What is TPA and difference with immersion suit.
10. Mob marker.
    1. What is NT and GT
    2. MARPOL ANNEX 6 CERTIFICATE AND VALIDITY
11. 3. SHEER STRAKE AND WHY IT IS DIFFERENT FROM OTHER STRAKES
    3. LIFERAFT CAPACITY AND IN GENERAL HOW MANY LIFERAFT ARE THERE ON SHIP.
    4. WHAT POWDER IS THERE IN DCP FIRE EXTINGUISHER AND HOW MANY TUBE IS THERE. Two/ Dip tube and CO2 injector tube
12. COSCOPOOL
13. What is floor? Where it's fitted?
14. EEBD? Requirements and locations? Whether contains oxygen or air?
15. DCP PFE? Contents and how many pipes inside and name of them and use? Purpose of magnesium stearate.
16. What is reserve buoyancy?
17. Purpose of ISM, documents and validity.

DPA: provide a link between the Company and those on board, every Company should designate a person ashore having direct access to the highest level of management. responsibility include monitoring the safety and pollution- prevention aspects of the operation of each ship

Emergency preparedness:
The Company should identify potential emergency shipboard situations, and establish procedures to respond to them.
The Company should establish programmes for drills and exercises to prepare for emergency actions.

floors are the transverse stiffeners mounted vertically on the ship's bottom. Floor structure is continuous from the center to the side plating and supports the inner shell (tank top).

Floors:
>Solid Floor(Oiltight/Watertight)- below watertight bulkheads, between tanks, Separating tanks
>Solid plate floors or Plate floors- used in double bottom construction alternately one bracket floor, one plate floor, at every frame space in the engine room and in the pounding region
>Bracket floor: inside DB Tanks. used in double bottom construction alternately one bracket floor, one plate floor consists simply of short transverse plate brackets fitted in way of the center girder and tank sides

BWM: prevent the spread of invasive species as well as potentially harmful pathogens.

two formats for this supplement of IOPP certificate exist:
FORM A-Record of Construction and equipment for ships other than oil tankers
FORM B- Record of Construction and equipment for oil tankers

Surveyor Wise Question Set(2021-23)

18. Lifebuoy regulation and use
    1. Floors, types. Where they r located? How they r constructed, uses. many more cross question.
    2. What is metacenter, meta centric height, center of gravity, their location
    3. No & location of liferaft on ship? Capacity?
    4. Life of statituary certificates? Who issues them?
19. Free board
20. Weekly mandatory requirement of orb 1
21. Co2 room entry HRU
22. GT, NT unit of both
23. Annexes of marpol
24. certificate under annex 6 and its validity when is EIAPP certificate renewed
25. IGG safeties and trips
26. Port State Inspection and Flag state inspection
27. CO2 bottle dip tube
    1. Type of ship you sailed
    2. No. of dip tubes in dcp fire extinguisher and functions
    3. Port and flag state survey and difference
28. 4.Stability criteria for ship , equilibrium
29. 5.Righting moment and lever
    5. Number and types of fire detectors in cargo hold of bulk carrier
    6. No. and capacity of life rafts on your ship as per solas
    7. Sodium bicarbonate and magnesium stearate functions in dcp
    8. Chemical reaction of Soduim bicarbonate to extinguish fire
30. Classification society Flag state
31. Man overboard marker Where it is kept
32. Racking effect
33. GT & NT
34. Liferafts Quantity and Minimum required
35. Dip tubes in DCP Extinguisher Syphon tube in DCP
36. How to fight Electrical fire?
37. Stops outside engine room - xx qns
38. Ballast water management system - xx qns
    1. Fire detection system in cargo holds of bulker
    2. Stiff and tender ship, why tender preferable
    3. How many chapters in SOLAS, which one includes ISPS code
    4. Emergency fire pump regulations and performance testing procedure
    5. Preparations, procedure and regulations regarding CO2 release
39. 1-Statuatory certificates
40. 2-Angle of loll 3-Cofferdam and location 4-Expellent of fixed dcp (nitrogen)
41. 5-Life raft lowering speed control mechanism
42. BLEVE
43. DCP- Powder Name Propellant in DCP
44. Tender ship and stiff ship
45. Mob marker

Quantities of oil residues (sludge) retained on board. The quantity should be recorded weekly1 Only those tanks listed form A and B of the Supplement in the IOPP Certificate used for oil residues (sludge)

.1 identity of tank(s)
.2 capacity of tank(s)
.3 total quantity of retention
.4 quantity of residue collected by manual operation

both are unitless

It is the duty of the flag state to ensure that the ship entitled to fly its flag is safely constructed, equipped and subsequently properly maintained and manned as per regulation based on the international Convention developed by IMO for this purpose.
when a country exercises control over a ship that is registered in that country such control is called Flag State control.
The Flag State carries out survey and inspection on the vessel for issuance of various statutory certificates.
Flag State Control is limited to ensure that valid certificates are onboard (Statutory Certificates).

Port State Control (PSC) is the inspection of foreign ships in national ports to verify that the condition of the ship and its equipment comply with the requirements of international regulations and that the ship is manned and operated in compliance with these rules. to findout sub standard ships.

two liferafts each side and when distance between fwd to survival craft>100m one more in forward

NaHCO3+Heat->Na2CO3+CO2+H2O
Na2CO3+Heat->Na2O+CO2

must be able to deliver two ½ inches bore jet of water having a horizontal throw not less than 40 ft.

1/2 inches = 2.54/2cm= 1.25cm= 12mm

ARCHIMEDES' PRINCIPLE
If a solid body is immersed in a liquid there is an apparent loss in weight. This loss in weight is the upthrust exerted by the liquid on the body and is equal to the weight of the volume of liquid which the body displaces.

International Ballast Water Management Certificate (IBWMC)
All ships of 400 gross tonnage and above to which the BWM Convention applies (including existing ships, except floating platform, FSUs and FPSOs) are required to carry International Ballast Water Management Certificate.

displacement of ship take mass.

The force of buoyancy acts at the centre of buoyancy, which is the centre of gravity of the underwater volume of the ship.

tabulate ordinates and multiply them with Simpson multiplier, add all products. apply formula then. naval reeds/ p no26

46. Water plane area calculation by simpson rule
47. PSC inspection
48. How many chapters STCW AND SOLAS 8 chapters/14 chapters

Bhowmick

Declaration of Security (DoS) is an agreement reached between a ship and either a port facility or another ship with which it interfaces, specifying the security measures each will implement.
When Ship at higher level than port, when ship to ship operation which donot have SSP, calling to port which has not ratified. when any security incident happened

1. 1.Metacenter
2. 2.water ingress alarm system
3. 3.eedi Rest forget
4. 1.Type of ship
2. Special thing which is present in RoRo and no in other ships(he asked about Intt. Trade name for Stern Ramp)
3. special construction in RoRo & method to prevent flooding in case of Damage
4. ISPS code full form ? Certificate under it ... Other certificate than ISSC(he said abt DoS , SCR)
5. SEEMP full form ? Brief details about it ? What is GHG ?
6. What is Senhouse Slip ?
7. Air pollutants under Marpol Annex- 6 ? What is VOC ?

tank name and 100% capacity and corresponding ullage

5. Pre Bunker Plan? Cross - what to be filled in the first table out of two table in the first column?
6. What is first action after you see fire?
7. SOS? Brief description and full form?who will give sos? Where sos signal is given?
8. Seemp? How to improve seemp?
9. FFA ka parts : (4 parts)
10. Double skin and double hull difference
11. Bow stopper
12. What is fire damper? (Not use)
13. Samson post (wanted to know everything in details. Not just definition
14. Centre of pressure Centre of floatation
15. Bulk carrier def. as per solas regulation
16. Nox regulation annex 6
17. FFA classification
18. Bunkering checklist contents
    1) garboard strake..
    2) numbering of plates
    3) 6 ship pollutants to atmosphere..
    4) and their sources in details
    5) fridge room stopper
    6) from loadline 1 questions asked...I didnt understood..
19. Scba and eebd difference
20. Explain fire line safety
21. Location of eebd
22. Gunwell,strake
23. Eeoi Methods to improve seemp(10 points)
24. Pre bunker checklist(two columns??)
25. Centre of pressure and center of floatation(exact defination)

A 'bulk carrier of single side skin construction' is defined as a bulk carrier where one or more cargo holds are bound by the side shell only, or by two watertight boundaries, one of which is the side shell, which are less than 1000 mm apart.

1.1.3 The term 'bulk carrier of double side skin construction' is defined as a bulk carrier where all cargo holds are bound by two watertight boundaries, one of which is the side shell, which are greater than or equal to 1000 mm apart at any location within the hold length.

THE MINIMUM REQUIREMENT ON THE BRIDGE IS:
6 hand flares,
12 rocket parachute flares,
2 buoyant smoke signals (one on each side, port and starboard),
at least 1 line-throwing appliance.

26. Pyrotechnics on Bridge(regulation)
27. Double skin and double hull
28. Nox regulation
29. Marpol anex 6 regulation 13
30. Bunkering details checklist types of entry Safety
31. Fire control plan full
32. aft peak bulkhead –
33. life boat launching safties ××××
34. bulwark A barrier fitted at the deck edge to protect passenger and crew to avoid the loss of items overboard while the ship rolls excessively.
35. how many records books are there in ship regulation and entry of each ×××
36. Tpc
37. Gunwale
38. Afff
39. Diff between CO2 Hypermist Sprinkler
40. Annex VI Seemp
41. Stringer

1. In Pre bunker plan, give me the details of 2 tables you fill in it.(Not satisfied with type of fuel, amount to be taken, tanks to be filled, rate of bunkering etc)
2. double hull and double skin
3. What is Bow stopper, where it is located? (Too many cross)
4. What is regulation 13 of Annex 6?

32839, 19559

42. Which type of veseel,grt,nrt of vessel(cdc se dekh kr puchta hai exact batao),
43. which type oil carry,
44. 1.What is framo,its full form, working nd which types of pump using in framo
45. 2.ISPS full form,all 3 level, how many people maintain security on ship in these level(I don't know)
4. ANNEX5 stand for,what means of garbage,what think record in garbage record book, how to calculate garbage(volume or mass like that..)
46. 4.AFFF full form,which content in afff,where use (type of fire) sodium alkyl sulfate
47. cartridge bottle weight nd preesure,how to operate this extinguisher
48. what effect of co2 cartridge into extinguisher
49. 5.strake, shear strake,gunwale
50. 6.explain IMDG code

The IMDG Code was developed as an international code for the maritime transport of dangerous goods in packaged form, in order to enhance and harmonize the safe carriage of dangerous goods and to prevent pollution to the environment.

Best of Luck

How to tow a ship:
emergency towing booklet, which contains information pertinent to towing, must be kept handy and conspicuous