Quick outline of structure then into it.
Told to answer as fully as possible as often people failed for lack of basics that we normally do without thinking.

Handysized Bulk Carrier, 150m, Fremantle registered, 30,000 DWT, 12m draft, 10 crew, carrying steel back from Thailand to Australia, currently at Anchorage, Sultan Shoal, Tuas, Singapore waiting on Bunkers/Stores.

Informed that this would be my vessel for the duration unless told otherwise and all of my information and actions would need to relate to that size/type of vessel unless otherwise instructed. Joining by Launch

- Explain what I would do – looking at drafts, state of vessel on approach, safety of Pilot ladder, ISPS ID at gangway, shown to Bridge etc.

Masters handover – Check main certs (asked to list certs for vessel carried under SOLAS), docs, monies, crew certs, vessel issues, bunkers, Pot water, stores to load before sailing, follow company checklist if available. Official entry into OLB

Asked about different certificates - survey types and periods. Was getting confused with IM periods / annuals so told him I had a way to remember it all, asked him to stop for a minute while I drew up a quick table as follows for the intermediate certs (8). Then I started adding the other ones below.

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This saved my ass!

Asked about ISM DoC renewal. 5 yrs - issued to the company for vessel types, not to the boat, I just have a copy.

Would ESP apply to vessel? What is it about? Owner/class/flag agree to survey programme

What else did it apply to? Tankers
Coming up to 10 Year survey. What would it entail. – more detailed structural inspections, more thickness tests, hull & machinery, drydock inspections as per approved program etc.

Old Master departs, Loading bunkers, oil spill – actions – SOPEP, contain onboard, inform local port authority, follow SMS emergency guidance AMSA 18,19 then corrected to MO 91 POLREP form. Advise company. Log entries, ORB p1

Mate falls onto bunker barge during cleanup – unconscious, head wound, breathing, broken both arms.


CM dies on way to hospital– what now – AMSA 18,19. DPA etc. DPA has gone on holiday, cant contact. DPA always contactable, contact company (owner is also manager, one man band) -contact local Australian Embassy/Consulate.

Difference between port state and flag state inspections?

Port State Inspection – Inspector says going to detain vessel – on what grounds? Confirm issues are valid – visual verification if substandard items as everything is up to date in PMS.

-Fire hoses& piping arrangements not up to standard, hose lengths on deck and in ER wrong

-Oily Water Separator pipework is not correct for vessel

Refer certs vessel passed by class - Form E for safety equipment & IOPP supplement for OWS (should have serial no) Mentioned Port state inspection report forms A/B. Inspectors depart, No detention or conditions.

Company pressure to sail due to delays. Have to check Safe Manning Document to ensure all certs required as no CM

New crew join, Asked about all docs required. Included is a Phillipino 2/M (needs CoR for COC’s [OOW & GMDSS] as well as originals). STCW certs, Rating certs, W.H.O Yellow fever health card, SEA(asked more detail about these – Position, Home port, wages and holidays, Hours of Rest, statement of financial security for repatriation / abandonment , sea-time book)


Type and frequency of drills

Discuss health and safety – Do I need HSR/s? only if requested, 1 for small crew, more for large crew & departments

Only small crew - 2 crew come up, both say they are the HSR & both have seacare Training/certs. HSR has a letter of appointment from the company

Plimsol mark - he said there were 2 on same side of the vessel and I said there should only be one(each side). Only thing I could think of was an old one, had the v/l been resurveyed and new conditions assigned? If so old ones should be cut off and painted out and I would check LLC for correct measurement from deck line.

Asked me to draw port side load line Marks. If loaded to max Drafts in SW where would it be? if we went up a river into d1003 where would I expect to see marks? Up close to TF. Zones! Discussed Loadline zones and routing charts.

Told I have ECDIS as Primary and papercharts as secondary. How do I know? – Form E.

Where does the passage plan have to be? On Both

Asked about Safety contour and Depth on ECDIS

Can I just sail along on Ecdis? have to verify positions by other means, able to input ranges bearings to verify accurate
2M is spending a lot of time checking ECDIS and AIS. When asked he tells me AIS is best for collision avoidance. *No, eyes, ears and all available means, AIS is an aid, not primary.* WHY? Possible GPS/Positional errors and manual setting errors affect update parameters ie. at Anchor instead of underway causing AIS to jump positions.

Ready to Sail with Pilot onboard. Look at chart and asked route to go East to Aus. Where would our charted course be? *Need to cross over and join Eastbound TSS, down around buffer and NE in scheme through Singapore Strait.*

Pilot will be on until Eastern Boarding ground. Depart on passage. Wouldn’t let me go Inshore under pilotage.

Need to complete paperwork – leave 2M & Pilot on bridge. Pilot wants to cut through buffer Zone. *2M to challenge and inform me. Pilot wants to cut the corner to save time. NO.* Follow agreed passage plan unless there is a safety reason to deviate.

Heading SE in TSS. Tug and tow on Stbd quarter – what lights would I see?

steering 153°G -158°C, next course 051°G. Gyro goes down 5 min from A/C position. *Check deviation card for 158°(given as 5W), check variation(0°) & Verify Magnetic compass & Deviation are accurate. Check/plot position. Check deviation for 050°(given as 3E) A/c for WPT and steer 048°C*

Blackout during the turn – lose ME/propulsion – Actions – *E. Genny and E. steering should be online within 45 sec., follow SMS emergency guidance procedures, sound general alarm, Muster etc. Show NUC (what would lights/shapes be?), inform VTS, Securite to warn vessels nearby if required. VTS should do this. Check chart.* Before I could mention sby anchors we were across the scheme into the buffer Zone, then....

Run aground due to above on a shoal – actions -, muster! Headcount, injuries, ensure close watertight doors(auto from bridge if possible) check vessel spaces & tank for ingress, sound around

Points to a light. What light would I see ? Fl(2)WR.10s? *I’m in red sector.*

Float off next high tide, no damage & continue through TSS come across OLD known wreck(not charted though!). What markings would it have. Blue/Yellow wreck marker buoy. Before that, What else.2 Cardinals. Asked to place N & E cardinals about a spot on chart, then asked to navigate past.

If an underwater hazard was a small area with clear water around it? *Isolated danger Marker. which one? Topmark?*

On passage, mate finds 2 buckets and a drum of old cargo residues, contents unknown, wants to dump it. *No. Keep and dispose ashore next port.*

Mate finds small amount of old cargo, wants to dump it. Note attached is Alumina from last cargo, verified by another crewmember. *Check Ship Dec from cargo records – Marine pollutant? If not and offshore ok. Log in GRB, mentioned new format soon part 2 for cargo residues. Marine notice about it.*

*Who can fill in the GRB? CM usually does it, I sign off each page. Can 2M do it? Check Garbage management plan for designated roles. Good for 2M training under guidance of Master/Chief Mate*

spot a red flare – actions – *take bearing, check SatC EGC - nothing on radio either, check chart, deviate if safe, OLB entry, Inform AMSA, Muster crew, lookout, prep for receiving casualties. Were can I find more guidance? IAMSAR III – brief description of content. Log all consumables & note protest w right to extend, and said I would have done this in any previous scenario where it could impact on charter, to protect interests of owner.*

Company advise no rush now, slow down to best economical speed.

Mate wants to visit a local island – good food, can we stop? *No. follow planned passage.* Trade Fresh Fish from the boats? *No. ISPS risk.*
Asked about Copper concentrate – refer IMSBC under mineral concentrates, High density > 1.78T/m, group A liquefy, ship dec to confirm density, class, TML, angle of repose and other info + analysis w actual moisture content. 7 days

South of Lombok strait. TRS forming NT region - precautions – mate check v/l – secure everything/inform cook, crew, e/r, fill service tanks, check stability, press up/MT tanks etc. BWM was covered in that one!

given V/l & TRS pos’n & speed and AUS coastline on a piece of paper and asked to plot probable track. Action? Go back north!  Now past probable track & TRS is closer? go north. Now further past probable track and TRS is closer – wind fine on Port bow and get around behind trough line. asked about quadrants. where to find more info? NP100

Changed to a containership (shown pic, fully loaded)

Asked about max loading. Stab. LL, IMO visibility (2L or 500m), Securing. Where to find info. CSM & ref MO 42.

<24hrs from port. Slow rolling then stay over to port side - Angle of loll - what to do? Check stability & verify liquids. Stab confirms 0.85GM. - Probably wrong weight for containers & mention Gross verified mass on Shippers Dec.

Explain Loll – drew & talked about GZ curve, use of consumables

Can I carry on and go into port? No. need to get stability right. Ballast small low side or small centre tank, get positive list then straighten up list.

On rounds Container found leaking and smells like gas – check container Manifest, IMDG Multimodal form, UN no, & IMDG class, container IMDG stickers.


Asked about IMDG code – Vol 2 listed by Un no. refer Ch 7 vol1 for segregation etc.

MO32 Lifting gear - Described MHR sections & inspections, responsible/competent person etc


Colregs – fog - radar 3 v/l.s. ROC exists with 2. who is stand on vessel - No one – R19 – A/C as per rules


Gave me CBD on Port side and actions - Not to impede etc. Made me CBD and actions. Remember conditions of CBD. Slow down and or stop since you are severely restricted in ability to deviate from your course due to depth and breadth of navigable water. Also the term Impede is very specific to only a few circumstances.

Approaching land, shallow water, how would I know? Water Colour, turbid? chart? What else? Was looking for Shallow water effects and wanted practical signs – vibration, change in handling – details. Described what is happening (interaction, squat)

Coming to port, what would I expect to see, Buoys- lights, topmarks. Difference for Region B

Given CS Safety Certificate dates similar to following – can I sail?

anniversary date  16 May
4th annual 23 July 16

current date. 18 May 16  No. 2 days over.

Apply to class for exemption (up to 3mth) to sail to suitable port for survey (1mth for short voyage <1000Nm) SOLAS I

Referenced Solas chapters Marpol Annexes and Marine orders throughout the exam, as much as possible. Very thorough but also very fair. Approx. 1hr 50min.