Candidate: S.M - RFA
Examiner: Captain Keep
Date/Time: 30.11.2015 - 0915
Result: Pass

My exam was at 0915 and I stayed in the Liverpool North Premier Inn on the previous evening. I would strongly advise anyone with an early morning exam to stay in accommodation the night before. When I was travelling back to Fleetwood poor weather and an accident had gridlocked the M6 towards Liverpool. I would never have made it on time if I'd tried to drive on the morning of the exam.

My exam was delayed and didn't actually start until about 0935. Captain Keep was relaxed and most of the exam was conversational in nature. On the vast majority of questions he would cut you off early and move onto a new topic and soon as he was satisfied that you seemed to know what you were talking about. At times the approach seemed very scatter gun quickly jumping from subject to subject. He didn't even open my nav/ops workbook.

Questions

1. Tell me about the ships you've served on so far.

2. The RFA operate quite specialist vessels but this is an unlimited ticket what other vessel types do you know about?
   A. I just reeled off some vessel type's passenger, tankers, ro-ro, container, general cargo, bulk carrier and off-shore supply.

3. You mentioned bulk carriers what is the construction features of a bulk carrier.
   A. I explained that I would expect to normally see the accommodation aft, large holds and hatch covers and perhaps loading or unloading gear e.g. cranes.

4. Ok so you're loading a cargo of grain what are you going to do to ensure the hold is ready for loading.
   A. Inspect the hold - clean, dry, bilges cleaned, bilge pumps tested, water ingress alarms, dunnage. He interrupts.

5. What countries export grain in August?
   A. I told him some of the largest exporters are the USA and Australia.

6. You're now loading the grain what are the special considerations and how would you make sure it's loaded properly.
   A. I'd always follow the C/O Cargo Plan. Grain requires 0.3m GM, the vessel must be upright when sailing, if a cargo shift occurs the resultant angle of list NMT 12° and vessel must retain positive stability if shift occurs. Interrupts.

7. Now its iron ore you are loading. This hold limit is reached before the hold is fully loaded why is this?
   A. Density of the cargo and structural stresses of the ship.

8. Any other reasons.
   A. Load lines.

9. How often are load line surveys conducted?
   A. I was honest and said I wasn't 100% but I'd consult the load line convention for the text wording of the requirement.

10. Ok what other special consideration for a bulk cargo should you consider?
    A. I would ensure it was below Transportable Moisture Limit.

11. What's the TML and how would you ensure it's below this limit?
    A. I discussed how bulk cargos above the TML shouldn't be carried and if the Flow Moisture Limit FML is reached the cargo acts a liquid and may cause a catastrophic loss of stability. I told him that I would ensure that it was below the limit by inspecting the shipper's certificate and if in doubt I would inform master and not load the cargo.

12. Ok this cargo is being loaded in a hot climate and the air in the hold is warm. We then travel to a cold climate what could happen?
    A. I talked about ship/cargo sweat and how the cold exterior atmosphere reduces the temperature of the air in the hold to its dew point and condensation forms which could damage the cargo.

13. When else in the maritime environment does this type of effect occur?
    A. Fog.

14. Ok you're in fog now what are your actions?
    A. Inform master, display and sound appropriate signals, he interrupts.

15. What are the appropriate signals.
    A. When making way 1 prolonged blast at intervals not exceeding 2mins on the ships whistle and then 2 prolonged if underway but not making way.

16. Ok you've done the appraisal stage of your passage plan and now I want you to talk me through how you would plan a passage on WECDIS (RFA ECDIS) from pilot station to pilot station.
    A. I never realised the catch initially. Berth to Berth. I said consult master on his requirements, plan route fully on WECDIS, set XTC, ETA's, Speeds and all alarms e.g. safety depths. Take consideration for MARPOL and security requirements. Fully scan route automatically and manually to ensure it is safe. He interrupted and said are you happy with the route pilot station to pilot station. At this point I realised what he'd said and advised him on the berth to berth requirement of SOLAS.

17. So we mentioned the load line convention earlier but other conventions do you know of.
    A. SOLAS, MARPOL, COLREGS, MLC. He interrupts.

18. The MLC has a lot about hours of rest. What can happen if you're fatigued?
    A. I mentioned the horizon project and looking into working patterns such as the 6 on 6 off. The result of fatigue creating the potential for people to fall asleep on watch especially if solo watchkeeping.

19. Is there any equipment that prevents this happening?
    A. Solo Watchkeeper alarm.

20. Can you disable this alarm when you're on watch?
    A. No it's illegal to interfere with the system and key is held with master.

21. The ISM code requires that equipment on ships is maintained how is this achieved?
    A. Through a scheduled maintenance system.

22. What's in this?
    A. The details of the equipment to be maintained, dates maintenance due, how to conduct the work and checklists depending on the nature of the work.

23. What goes into the ORB part 2.
    A. Bunkering, tank cleaning, discharge overboard, disposal of sludge. He interrupts.

24. The E.R should be kept clean and free of oil why is this?
    A. Mainly to prevent fire but also to keep a safe working environment and prevent slips etc.

25. There's an oil fire in one of the engineroom bilges what's the best medium to put it out?
    A. Foam.

26. How does this work?
    A. Smothers the fire and cools it.

27. So what side of the fire triangle does it alter?
    A. It removes the oxygen and reduces the heat.

28. How would you apply it?
    A. Could use fixed systems, portable extinguishers, fire hoses with an inline educator utilising the venturi effect.

29. How does the venturi effect work?
    A. The fast following water moves through an obstruction creating a low pressure and sucking the foam up from the drum.

30. How does this effect negatively affect us in the maritime environment?
    A. Squat.

31. On the RFA you have NILE man (AB that deals with some LSA maintenance e.g. lifejackets) that do most of the LSA maintenance what does the 3/O do for LSA on ships.
    A. Explained that they do some of the work but the 3/O you have overall responsibility for the LSA.

32. Ok on a normal cargo ship what's the LSA carriage requirements.
    A. Mentioned lifeboats 100% each side, liferaft's 100% or 100% on each side if over 185kg and davit launched. Then mentioned lifebuoys and said the number depends on the size of the vessel. He interrupts.

33. What do you mean size do you mean gross tonnage?
    A. Explained I meant length e.g. over 200m 14 buoys.

34. What do 50% of these need to have?
    A. Lights and also said that 2 of these must also have smoke floats that last for 15 minutes and these 2 must be capable of rapid release from the bridge.

35. What colours the smoke and why?
    A. Orange because it indicates distress.

36. What else indicates distress and I don't mean slowly raising and lowering your arms?
    A. I mentioned pyrotechnics, RT 'Mayday' he interrupts.

37. How would you transmit an RT Mayday?
    A. I said it would depend on sea area if in A1 VHF 16 A2 2192Khz MF and then went onto say that I could also utilise the spoken word via telephone. He interrupts.

38. What other electronic equipment can you use?
    A. I initially said DSC but he was looking for EPIRB which I got to.

39. Ok you're back on your cargo ship and one of the holds is on fire, actions?
    A. Sound G.A, Inform Master, Crash stop ventilation, close fire doors, pipe the location of fire on main broadcast.

40. Ok it's a container ship is there any particular types of container that would cause you extra concern and where would this info be located?
    A. Dangerous good containers and D.G manifest.

41. What types of D.G are they're and where would you find info about the segregation requirement?
    IMDG code 9 classes. Refer to vol2 DG list for Stowage and Segregation codes and then look in vol 1 chapter 7 for info.

42. What is on the shippers certificate for D.G.
    A. Proper shipping name, UN no, segregation requirements, amount of D.G, actions in emergency.

43. West Carinal Mark What is it/travelling north and seen right ahead/actions?
    A. Explained buoy alter to port.

44. What IALA region is Bahrain?
    A. Region A

45. Places a Port hand lateral mark preferred channel to stbd on the desk. Takes out a ship and explains that I'm on a pilotage into Bahrain and the master has the con with the pilot on board as well. He then drives the ship along the desk and on the port side of the buoy and asks if I'm happy with this?
    A. I stated no I'd immediately inform the master and pilot as we should have passed on the stbd side.

46. So you're a 3/O on the ship and you're going to turn round and tell the master that he and the pilot are wrong. That's pretty bold are you really going to do that!
    A. Explained that in the RFA the safety culture is such that if anyone see's something that they think is unsafe they are encouraged to raise it immediately. Also I would deliver it in a manner such as "Sir did you notice that buoy, shouldn't we have passed on the stbd side?" rather than telling the Captain and Pilot they're wrong.

47. Says I see a white isophase light what could this be and what does isophase mean?
    A. Safe water mark equal periods of light/darkness.

48. What's an isobar.
    A. An area of equal pressure.

49. Gets out the ship models. You're conducting a RAS what type of condition would this make you?
    A. RAM

50. Define RAM?
    A. Exact as per rule 3.
51. Places a vessel on stbd side crossing. Asks who is required to give way.
    A. She is rule 18 must keep clear.

52. She fails to take action what do you do.
    A. Master would be on bridge for RAS but inform master, sound 5 short and rapid, consider emergency breakaway from RAS, explained man is already on wheel.

53. The places a snap card on the smarty board. He tells me the vessel (PDV >50m) is viewed right ahead on a reciprocal course. What is it/actions?

A. Explained vessel, series of compass bearings and systematic plot on radar to determine if ROC exists. It does. What situation is it?
B. I said rule 14 head on situation. He say's does it?
C. I said it does. Really? Quote rule 14.
D. I quote it and as I'm doing so he starts saying but in this situation does it apply and points to my models which he's still left conducting a RAS.
E. I informed him that I was sorry and hadn't realised that this scenario was meant to be a continuation of the RAS situation. Told him rule 18 she must keep clear. To be honest he grinned and I'm pretty sure he was just screwing with me deliberately to see how I'd react.

54. Brings over radar plot relative vectors restricted vis another vessel 5° abaft my stbd beam actions/who is the give way?
    A. Alter to port, explained rule 19 and everyone is give way.

55. Both vessels are now in sight of one another in normal conditions of vis actions?
    A. I am the give way vessel.

Congratulations you've passed.

Despite the number of questions I was out in under 40mins due to the rapid fire nature of them. The exam appeared relatively straightforward but it is just that, relative. The more hours studying you do the easier the exam is.

Good Luck.