

MCA Yacht 3/2 - Chief Engineer Statutory and Operational Requirements - Examination February 2008.

1. With reference to a yacht tender launching and recovery lifting appliance:-
 - a) state FOUR safety requirements that need to be complied with before the rig can be safely used; (4)
 - b) state the periodic inspection and testing requirements for the rig; (4)
 - c) state where the results of inspections and testing are recorded. (2)

2. With reference to maritime administration:-
 - a) explain what is meant by the term **port state inspection**; (4)
 - b) list the circumstances that could instigate a non-routine port state inspection. (6)

3. With reference to condition monitoring:-
 - a) state how vibration analysis can be used as part of a planned maintenance system; (4)
 - b) list SIX tests that can be carried out on generator crankcase oil in order to determine its suitability for further service. (6)

4. With reference to machinery watch-keeping:-
 - a) list FIVE responsibilities of a watch-keeper; (5)
 - b) state the procedures that should be followed when attending a machinery space under U.M.S. conditions. (5)

5. a) A vessel has no record of past fuel consumptions.
Calculate the safe bunker requirements for a forthcoming voyage,
given the following data:-
- | | | |
|------------------|---------------------|-----|
| Displacement | 350 tonnes | |
| Range | 2500 nautical miles | |
| Speed | 20 knots | |
| Fuel coefficient | 49,000 | (6) |
- b) state TWO actions that could be taken if it is found, during the
subsequent voyage, that part of the fuel is contaminated. (4)
6. With reference to the classification of vessels:-
- a) state what is meant by the term **condition of class**; (4)
- b) state a typical time period over which a condition of class may be
imposed; (2)
- c) list TWO circumstances under which the society would be entitled
to withdraw class. (4)
7. With reference to the International MARPOL Convention 73/78
Annex V - Garbage handling:-
- a) list SIX defined categories of garbage; (6)
- b) list FOUR garbage handling procedures that require an entry in the
garbage record book. (4)
8. With reference to fuels, state the meaning of EACH of the following:-
- a) flash point; (2)
- b) self ignition temperature; (2)
- c) upper explosive limit; (2)
- d) lower explosive limit; (2)
- e) vapour density. (2)
9. With reference to the classification of bulkheads:-
- a) state FOUR categories of A-class bulkhead; (4)
- b) describe the parameters that are used in order to determine the
category of an A-class bulkhead; (4)
- c) list TWO examples of the location of A-class bulkheads on a large
motor yacht. (2)

10. With reference to the dry-docking of a large motor yacht:-
- a) state FIVE precautions that should be undertaken before the vessel enters the dock; (5)
 - b) list FIVE routine maintenance activities that would be undertaken while the vessel is in dock. (5)