



MASTER WORKBOAT LESS THAN 500 GT UNLIMITED STCW Regulation – II/3 SYLLABUS DECK - R Oral Examination Candidates should demonstrate the ability to apply the knowledge outlined in this oral examination syllabus, by the appropriate response, anticipations and reactions to a range of routine, non-routine and contingency scenarios as presented by the examiner, from the perspective of the master of a workboat.

Topic 1 NAVIGATION 1. Plan and Conduct Safe Navigation

Undertake passage planning, taking into consideration:

Restricted waters;

- i) meteorological conditions, through interpretation of a synoptic chart, and to forecast local area weather, the characteristics of various weather systems;
- ii) restricted visibility;
- iii) the requirements of ship routing and mandatory reporting systems;
- iv) reporting in accordance with ship reporting systems;
 - b) IALA system of maritime buoyage (Region A and B)
 - c) electronic navigational systems – limitations and sources of error, methods of correction;
 - d) limitations of electronic chart systems including ECDIS and RCDS navigational chart systems;
 - e) radar and ARPA – practical use of, modes of operation, limitations, sources of error and parallel indexing;
 - f) use care and limitations of the gyro compass and associated equipment including automatic pilot;
 - g) sources of information, ability to use and interpret information obtained from ship borne meteorological instruments (the instruments supplied by the Meteorological Office will be taken as standard), knowledge of characteristics of various weather systems, reporting and recording systems;
 - h) port radio information services, knowledge of the type of service available to aid vessels entering ports, berthing, VTIS and VTS services, as indicated in the Admiralty List of Radio Signals – Vessel Traffic Services, Port Operations and Pilot Stations.

2. Establishing Safe Watchkeeping Arrangements and Procedures

- a) thorough knowledge on the principles of navigational watchkeeping at sea, including under pilotage, and watchkeeping at anchor and in port;
- b) a thorough knowledge of the content, application and intent of the international regulations for preventing collisions at sea;
- c) knowledge of the ICS Bridge Procedures Guide;
- d) understand the use of bridge equipment, including rate of turn indicators, course recorders, echo sounders and NAVTEX;
- e) knowledge of steering control systems, including automatic pilot, operational procedures and change-over from manual to automatic control and vice-versa – adjustments of controls for optimum performance;
- f) knowledge of principles of establishing a safe engineering watch at sea, anchor and in port.



3. Compasses

- a) operation and care of compasses commonly fitted on board ship – variation and deviation, causes and effects, siting of other equipment with reference to magnetic compasses:
- b) working knowledge of the purpose of correctors/corrections.

4. Manoeuvre the Ship

- a) preparations for getting under way, duties prior to proceeding to sea, making harbour, entering a dock, berthing alongside quays, jetties, or other ships and securing to buoys
- b) proper procedures for berthing and unberthing
- c) knowledge of manoeuvring and propulsion characteristics of workboats with special reference to stopping distances and turning circles at various drafts and speeds, squat and interaction
- d) helm orders, conning the ship, effects of propellers on the steering of a ship, effects of wind and current, stopping and going astern, turning short round
- e) importance of navigating at reduced speed to avoid damage caused by own ship's bow wave and stern wave
- f) choice of anchorage and working anchors in all circumstances
- g) embarking and disembarking a pilot;
- h) precautions to be taken before the onset of heavy weather, management of ships in heavy weather, handling a disabled ship in heavy weather ;
- i) precautions when manoeuvring to launch rescue boats or survival craft in adverse weather.
- j) knowledge of special handling characteristics of workboats.

TOPIC 2 RESPONSE TO EMERGENCIES

1. Response to Navigational Emergencies

- a) action to be taken when disabled and in distress, abandoning ship, survival procedures, use of rockets and rocket apparatus;
- b) measure to be taken following collision, grounding, heavy weather damage and leaks including the possibility of beaching the ship
- c) emergency towing arrangements and towing procedures;
- d) knowledge of operation of emergency steering systems;
- e) plan and co-ordinate SAR operations, including establishing and maintaining effective communications;
- f) use of the International Aeronautical and Marine Search and Rescue (IAMSAR) Manual (Volume III), distress and emergency signals; Search and Rescue around the UK.

2. Response to Other Emergencies

- a) preparation of contingency plans for response to emergencies;
- b) method of dealing with fire onboard ship; prevention of fire at sea and in port;
- c) maintenance of life saving appliances, fire fighting appliances and other safety systems;



- d) the organisation and direction of fire fighting, and life-boat and life-raft training drills;
- e) SAR and rescue plans for passenger vessels;
- f) understand the fundamental actions to be taken in the event of partial loss of intact buoyancy;
- g) action to limit damage and save the ship following fire, explosion, collision or grounding including protection of the marine environment;
- h) action to safe guard all persons on board in an emergency;
- i) action to be taken when an emergency arises in port;
- j) safety during helicopter operations;
- k) assisting a ship or aircraft in distress.

3. Communications

- a) emergency communications within the GMDSS regulations;
- b) sources of medical information available.

TOPIC 3 ONBOARD SHIP OPERATIONS

1. Pollution Prevention Requirements

- a) responsibilities under the International Convention for Prevention of Pollution including master's duties, obligations and liabilities, including the keeping of records;
- b) measures to be taken to prevent pollution in port and at sea;
- c) take appropriate action in response to pollution incidents onboard and found at sea;
- d) knowledge of the contents of the SOPEP manual, Garbage Management Plan and use of anti-pollution equipment;

2. Seaworthiness of the Ship

- a) effect upon ship behaviour of lists, stiff and tender stability conditions, large angles of heel and associated righting precautions;
- b) practical knowledge of the particular loadline items and openings affecting seaworthiness;
- c) working knowledge of stability and trim information including the importance of free surface effects and the identification and correction of an angle of loll;
- d) specific effects on stability and stress caused by ship type or nature of trade;
- e) preparations for dry-docking and undocking, general procedures and precautions to be observed.

3. Crew Management

- a) knowledge of personnel management, organisation and training including disciplinary procedures;
- b) application of hours of work and rest legislation.

4. Legislative Requirements

- a) contents and use of Merchant Shipping Notices, Guidance Notes, Marine Information Notes and the Annual Summary of Admiralty Notices to Mariners;
- b) knowledge and application of current Merchant Shipping Health and Safety legislation, and the Code of safe Working Practices for Merchant Seamen, and the main elements of Risk Assessment;



- c) a knowledge of international conventions relevant to the operation of ships and concerning safety of life at sea and protection of the marine environment, including certificates and Other documents required to be carried on board ships;
- d) requirements for statutory and classification surveys;
- e) certificate of Registry and its legal significance;
- f) safe manning, crew agreements, conditions of employment, and the official log book and the law relating to entries;
- g) reports required by the Marine Accident Investigation Branch;
- h) purpose and application of International Safety Management (ISM) Code;
- i) purpose of Flag and Port State control; and inspections under Port State ;
- j) the requirements of the regulations concerning life-saving and fire-fighting appliances;
- k) requirements for drills and training;
- l) putting into port with damage to ship from both a business and technical point of view;
- m) towage and salvage agreements;
- n) the law relating to the reporting of dangers to navigation;
- o) knowledge of the master's obligations with respect to pilotage.