Master – UNLIMITED TONNAGE – NEAR-COASTAL

Candidate should demonstrate the ability to apply the knowledge outlined in this oral examination syllabus and oral examination syllabus Deck – D, by appropriate responses, anticipations and reactions to a range of routine, non-routine and contingency scenarios as presented by the examiner, from the perspective of MASTER – UNLIMITED TONNAGE – NEAR-COASTAL.

TOPIC 1 NAVIGATION

1 Plan and Conduct Safe Navigation

a) demonstrate an ability to undertake voyage planning and navigation, taking into consideration:
   i. Restricted waters;
   ii. Meteorological conditions, through the interpretation of a synoptic chart, and to forecast local area weather, the characteristics of various weather systems;
   iii. Restricted visibility;
   iv. The requirements of ship routeing and mandatory reporting systems;
   v. Reporting in accordance with ship reporting systems;

b) maritime buoyage systems – IALA region ‘A’.

c) danger messages and obligatory reporting requirements.

2 Establishing Safe Navigational Watchkeeping Arrangements and Procedures

a) a thorough knowledge of the principles of navigational watchkeeping at sea, including under pilotage, at anchor and in port;

b) a thorough knowledge of the content, application and intent of the International regulations for the prevention of collision at sea;

b) knowledge and application of the ICS Bridge Procedures Guide;

c) limitations and risks involved with the use of ECDIS and RCDS; inter-relationship and optimum use of all navigational information available;

d) knowledge of principles of establishing a safe engineering watch at sea, anchor and in port.

3 Compasses

a) the operation and care of various types of compasses;

b) care and maintenance of the magnetic compass and binnacle;
c) knowledge of the purpose and use of compass correctors (candidates will not be required to demonstrate a compass correction procedures);
d) Knowledge of how to find the magnetic bearing of a distant object and subsequent construction of a deviation card.

.4 Manoeuvre the ship

a) knowledge of manoeuvring and propulsion characteristics of ships, with special reference to stopping distances and turning circles at various draughts and speeds, squat and inter-action;
b) importance of navigating at reduced speed to avoid damage caused by own ship’s bow wave and stern wave;
c) demonstrate an understanding of ship manoeuvres commonly undertaken under all weather conditions including: berthing and un-berthing, approaching pilot stations, restricted waters and shallow water;
d) management and handling of ships in heavy weather;
e) choice of anchorage and working anchors in all circumstances;
f) precautions when manoeuvring to launch rescue boats or survival craft in bad weather.

TOPIC 2 CARGO HANDLING AND STOWAGE

.1 Plan and Ensure Safe Loading, Stowage, Securing, Care During Voyage and Unloading of Cargoes

a) knowledge and ability to apply relevant international regulations, codes and guidelines concerning the safe handling, stowage, securing and transport of cargoes.

TOPIC 3 RESPONSE TO EMERGENCIES

.1 Response to Navigational Emergencies

a) precautions when beaching a ship;
b) grounding: action to be taken when imminent, after grounding and re-floating, and subsequent surveys;
c) measures to be taken following exceptional circumstances including loss of rudder and/or propeller and impairment of watertight integrity of the ship through any cause;
d) emergency towing arrangements and towing procedures;
e) plan and co-ordinate SAR operations, including establishing and maintaining effective communications.
.2  Response to Other Emergencies

a) preparation of contingency plans for response to emergencies;
b) actions to be taken when disabled and in distress;
c) organisation of fire and abandon ship exercises;
d) methods and aids for fire prevention, detection and extinction;
e) functions and use of life saving appliances;
f) abandoning ship and survival procedure;
g) SAR plans for passenger ships;
h) maintenance of operational conditions of life saving appliances, firefighting appliances and other safety systems;
i) knowledge of the effect on trim and stability of a ship in the event of damage to and consequent flooding of a compartment and counter measures to be taken;
j) action to limit damage and salve the ship following a fire, explosion, collision or grounding, including protection of the marine environment;
k) action to safeguard all persons on board in emergencies;
l) assisting a ship or aircraft in distress.

TOPIC 4  ON BOARD SHIP OPERATIONS

.1  Compliance with Pollution Prevention Requirements

a) responsibilities under International Convention for Prevention of Pollution including masters’ duties, obligations and liabilities, including the keeping of records;
b) methods and equipment to prevent pollution.

.2  Seaworthiness of the Ship

a) effect of heavy weather on the ship’s structure;
b) effect upon ship behaviour of lists, stiff and tender stability conditions, large angles of heel and associated righting precautions: the effect upon different cargoes;
c) 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.

.3  Crew Management

a) knowledge of personnel management, organisation and training including disciplinary procedures;
b) application of hours of work and rest legislation.
.4 Maintain Safety of Ships Crew and Passengers

a) master’s responsibility with respect to stowaways and prevention of smuggling;
b) precautions to safeguard against terrorism, piracy and armed robbery;
c) methods of pest control, fumigation of holds and living spaces, safeguards in applying various methods.

.5 Legislative Requirements

a) knowledge and application of current Merchant Shipping Health and Safety legislation including the Code of Safe Working Practices for Merchant Seamen and the main elements of Risk Assessment;
b) safe manning, crew agreements, conditions of employment, official log book and the law relating to entries;
c) knowledge of international conventions relevant to the operation of ships, including certificates and other documents required to be carried on board ships;
d) requirements for statutory and classification surveys;
e) reports required by the Marine Accident Investigation Branch (MAIB);
f) putting into port with damage to ship and/or cargo, both from business and technical points of view, safeguarding of cargo;
g) towage and salvage agreements;
h) obligations with respect to pilotage;
i) maritime declarations of health and requirements of the international health regulations;
j) purpose and application of the International Safety Management (ISM) Code.