

CHECK YOUR PROGRESS
MASTER 5 NAUTICAL KNOWLEDGE (printable pdf)

NAME:
(answers)

Part One -- Seamanship
[Go to Part Two --Rules of the road](#)

Question 1 (1 Mark)

Details about Chart Reliability Diagrams can be found in:

- a. the Chart Catalogue
- b. the Annual Australian Notice to Mariners
- c. occasional Marine Notices
- d. each Weekly Notice to Mariners

Question 2 (1 Mark)

In NSW, the maximum number of persons indicated in the vessel capacity plate are assessed:

- a. at 75 kgs per person in good weather conditions
- b. at 80 kgs per person in good weather conditions
- c. at 75 kgs per person, allowing for children
- d. for good weather conditions

Question 3 (1 Mark)

The Permit Plate issued to a vessel following a survey must be:

- a. handed over to the appropriate authority for records
- b. carried on board at all times and prominently displayed
- c. held in safe custody of owners or mortgagees in case vessel sinks
- d. handed over to the insurance company

Question 4 (1 Mark)

A Class 1 vessel is a:

- a. Passenger vessel carrying more than 12 passengers
- b. Game fishing boat
- c. Registered commercial fishing vessel
- d. Passenger vessel carrying less than 12 passengers

Question 5 (1 Mark)

A non-passenger vessel in survey for operational area "B" is:

- a. required to carry the same number of distress signals as a passenger vessel which is in survey for the same operational area
- b. not required to carry the same number of distress signals as a passenger vessel which is in survey for the same operational area
- c. required to carry less distress signals than a passenger vessel which is in survey for the same operational area
- d. required to carry more distress signals than a passenger vessel which is in survey for the same operational area

Question 6 (1 Mark)

An approved bilge pump may be:

- a. manually operated only
- b. operated by wave action
- c. power or manually operated
- d. power operated only

Question 7 (1 Mark)

If fire smothering blankets are provided in a vessel, they will most likely be stowed in:

- a. the engine room
- b. the galley
- c. the wheelhouse
- d. float free lockers

Question 8 (1 Mark)

The fuel tanks in a fishing vessel must:

- a. be capable of being closed from outside the space in which they are located
- b. not be located near the main propelling machinery
- c. be fitted with automatic foam extinguishing in case of fire
- d. be fitted with automatic closures in case of fire

Question 9 (1 Mark)

An Emergency Station List will include:

- a. only the crew members name and emergency station
- b. details of each crew members duties
- c. only each crew members name and number
- d. details of the safety equipment carried

Question 10 (1 Mark)

What is the approved rescue signal for identification from the air?

- a. A signal consisting of a square flag having above or below it a ball
- b. Raising and lowering of outstretched hands

- c. Orange canvas showing black square and circle
- d. The radio telephony alarm signal

Question 11 (1 Mark)

A major difference between the GMDSS and the previous radio communication systems is that the equipment to be carried by a ship is determined by its:

- a. gross tonnage
- b. registered length
- c. area of operation
- d. nationality

Question 12 (1 Mark)

How far off the coast must a vessel be in order to dump bulky food waste?

- a. At least 6 miles
- b. 12 miles & over
- c. 3 miles & over
- d. 12 miles

Question 13 (1 Mark)

The following immediate action should be taken after an accidental oil spill in the water:

- a. clean up with oil dispersants
- b. contain the spill and advise the marine authority
- c. dilute and break up the spill
- d. clean up with oil dispersants and advise the marine authority

Question 14 (1 Mark)

Owners of vessels who can prove that they have sacrificed fishing gear in order to avoid damaging a submarine cable or pipeline:

- a. have the right to sue the commonwealth government for compensation
- b. are not entitled to receive any compensation for the loss
- c. may be entitled to receive compensation from the owner of the cable or pipeline
- d. are only entitled to receive very limited compensation for the loss

Question 15 (1 Mark)

The Uniform Shipping Laws Code:

- a. has enforcement powers and provisions mentioned in it
- b. has penalty provisions in some of its sections
- c. contains the power to imprison or fine individuals

d. has no enforcement provisions or powers mentioned in it

Question 16 (1 Mark)

The entries to be made in the _____ Book include the details of maintenance to machinery and equipment.

Question 17 (1 Mark)

The first indications a mariner will have of a warm front will be:

- a. Fog caused by the warm air passing over the cooler water
- b. High cirrus clouds gradually changing to cirrostratus and then to altostratus
- c. Low dark clouds accompanied by intermittent rain
- d. Large thunder clouds building up

Question 18 (1 Mark)

A 'pressure gradient' is

- a. A line joining places of low pressure
- b. A line joining places of zero pressure
- c. The rate of change of barometric pressure
- d. A line joining places of the same pressure

Question 19 (1 Mark)

Atmospheric pressure cannot be measured with:

- a. An aneroid barometer
- b. An anemometer
- c. A mercury barometer
- d. A barograph

Question 20 (1 Mark)

On the Beaufort Wind Scale, a strong breeze causes:

- a. Small waves becoming longer. Fairly frequent white horses.
- b. Small wavelets. Crests do not break.
- c. Large waves. Extensive white foam crests. Spray.
- d. Large wavelets. Crests begin to break, Scattered horses.

Question 21 (1 Mark)

Complete information on weather forecast schedules is contained in:

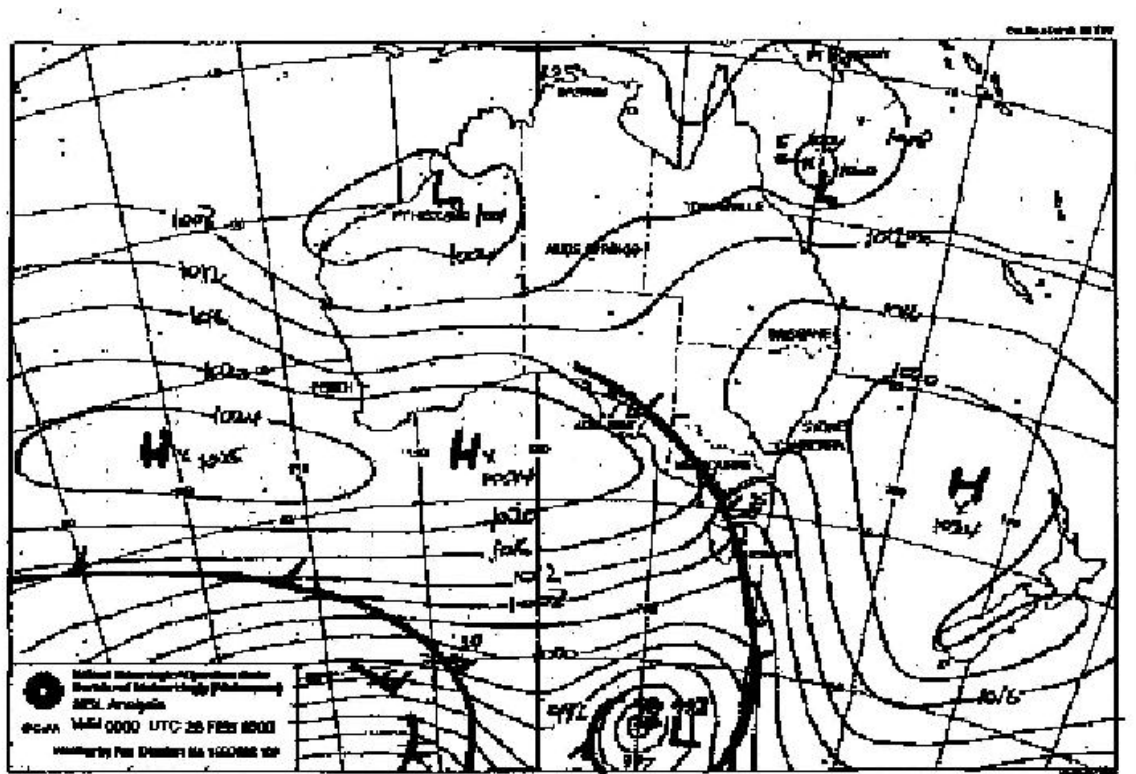
- a. The Mariners Handbook
- b. Marine Notices
- c. the Admiralty List of Radio Signals

- d. Weekly Notices to Mariners

Question 22 (1 Mark)

Widely spaced isobars on a weather map indicate:

- a. High winds
- b. Light precipitation
- c. Gentle breezes
- d. Overcast skies



Question 23 (4 Marks)

On the Weather map above describe the likely weather in advance of this front as it approaches Melbourne, with particular reference to the pressure, wind, temperature and precipitation.

Question 24 (1 Mark)

After a cyclone's trough line has passed over a vessel, the barometer will:

- a. remain steady
- b. show the highest reading
- c. start to fall
- d. start to rise

Question 25 (1 Mark)

To assist in avoiding a Tropical Revolving Storm, the mariner should construct and make use of Danger Sectors. It can be reasonably expected that the storm center will be somewhere inside a Danger Sector within the next:

- a. 24 hours
- b. 96 hours
- c. 72 hours
- d. 48 hours

Question 26 (1 Mark)

The best action to take on receipt of a cyclone warning is to batten down and head for the nearest _____ .

Question 27 (1 Mark)

When anchoring in a safe haven to seek shelter from a _____ , the master should check that there will be sufficient swinging room at all times.

Question 28 (1 Mark)

A power driven vessel displaying an orange diamond has:

- a. a local pilot onboard
- b. priority over sail
- c. priority over other power driven vessels
- d. priority over all other vessels

Question 29 (1 Mark)

Overhead cable and submarine cable advisory signs are coloured to make them easy to identify. They are coloured:

- a. green with white and black lettering
- b. yellow with black and red lettering
- c. red with white and black lettering
- d. white with black and red lettering

Question 30 (1 Mark)

Speed limit signs are coloured to make them easy to identify. They are coloured:

- a. red with white lettering and a black arrow

- b. white with black lettering and a red arrow
- c. yellow with black lettering and a red arrow
- d. green with white lettering and a red arrow

Question 31 (1 Mark)

Proceeding into port, you see ahead a red and white vertically-striped spar with a top mark of one red sphere. This mark indicates:

- a. an isolated danger
- b. safe water
- c. the port side of a main channel
- d. that clear water lies west of it

Question 32 (1 Mark)

Proceeding out of port, you see ahead a flashing green light. You would keep it:

- a. on your port side
- b. to the south
- c. to the north
- d. on your starboard side

Question 33 (1 Mark)

An isophase white light would indicate:

- a. a preferred channel to port mark
- b. a safe water mark
- c. a preferred channel to starboard mark
- d. an isolated danger mark

Question 34 (1 Mark)

You are proceeding into harbour and see ahead a very quick flashing white light in groups of nine flashes. This light would indicate:

- a. a hydrographic vessel at anchor – stay well clear
- b. the west side of a danger – pass west of it
- c. the west side of a danger - pass east of it
- d. a spoil bank – you should check your chart

Question 35 (1 Mark)

A vessel is repairing her engine at anchor in an open anchorage. A storm blows up and she starts to drag anchor towards the shore. The master should consider:

- a. informing the owners
- b. paying out more cable
- c. securing a line ashore
- d. discharging oil to calm the sea

Question 36 (1 Mark)

The most accurate means of checking that a vessel at anchor is holding her position is to:

- a. feel for vibrations in the anchor cable
- b. check the anchor bearings
- c. observe the anchor buoys
- d. observe another anchored vessel

Question 37 (1 Mark)

The duties of a lookout include:

- a. plotting the vessel's position on the chart
- b. steering the vessel and plotting positions
- c. maintenance work as required
- d. the detection of ships and aircraft in distress

Question 38 (1 Mark)

The officer in charge should not hand over a watch if:

- a. the vessel is in shallow tidal waters
- b. there are other vessels in the vicinity
- c. the relief officer is not fit for duty
- d. the automatic pilot is currently in use

Question 39 (1 Mark)

When watchkeeping in port, the watchkeeper should ensure that appropriate _____ signs are in place in relation to the working of the vessel.

Question 40 (1 Mark)

The barometer reading drops suddenly and you notice the swell increase. The Master's instructions include one to call him when in any doubt.

- a. Since barometer readings drop twice a day, there is no need to panic
- b. You tap the barometer and wait for a while to ensure the reading is true
- c. You call the Master right away
- d. You call the crew to secure the vessel

Question 41 (1 Mark)

Instruction to watchkeepers are given:

- a. To allow the master to have sufficient rest
- b. To protect the Master in his absence on the bridge
- c. To ensure the vessel is safe at all times
- d. To show demonstrate the efficiency of the Master

Question 42 (1 Mark)

Large vessels are not as manoeuvrable as smaller vessels because of their _____, hull shape and power.

Question 44 (1 Mark)

A vessel has a single right handed propellor. With the wheel amidships, the effect of a short burst of ahead power would:

- a. not swing the vessel either way
- b. swing her bow to port
- c. swing her stern to port
- d. swing her bow to starboard

Question 45 (1 Mark)

A single screw vessel is alongside port side to. The best way for her to leave the berth in a strong on-shore wind, is to commence the manoeuvre with the:

- a. forward spring on, go slow ahead, and hard a'port
- b. stern line on, go slow ahead, and hard a'starboard
- c. aft spring on, go slow ahead, and hard a'port
- d. head line on, go slow astern, and hard a'starboard.

Question 46 (1 Mark)

You are to secure at a wharf where the tide rises and falls 4 metres between high-and low water. You would:

- a. lay an anchor out in case you have to let go in a hurry
- b. use long leads on all mooring lines to allow for vertical movement of the vessel
- c. put out two head ropes and two stern ropes in case one breaks
- d. use breast ropes to hold the vessel alongside firmly

Question 47 (1 Mark)

When a vessel is approaching a berth at slow speed ahead, and engines are put astern with the wheel hard over to port, the:

- a. stern will swing toward the berth
- b. bow will swing toward the berth
- c. vessel will move bodily toward the berth
- d. vessel will move bodily away from the berth

Question 48 (1 Mark)

Why is a rock pick, or grapnel, most suitable for anchoring over a reef or coral head to fish?

- a. Because of superior holding capacity
- b. Because they are very light weight
- c. Because the arms straighten out for retrieval
- d. Because they don't damage the coral

Question 49 (1 Mark)

When casting off from a mooring Buoy, the weight can be taken off the mooring line by:

- a. going ahead on the engine or heaving in on the handy billy
- b. going ahead on the engine or heaving in on the slip rope
- c. going astern on the engine or heaving in on the handy billy
- d. going astern on the engine or heaving in on the slip rope

Question 50 (1 Mark)

Shallow water effect may cause a vessel's _____ to lose effectiveness.

Question 51 (1 Mark)

When two vessels approach to pass each other on reciprocal courses, interaction causes the:

- a. vessels draughts to increase as their bows overlap
- b. bows to swing toward each other as their bows overlap
- c. bows to swing away from each other as their bows overlap
- d. vessel's to come bodily together as their bows overlap

Question 52 (1 Mark)

The name given to a shallow area at the entrance to a river is a:

- a. breakwater
- b. bombora
- c. spit
- d. bar

Question 53 (1 Mark)

In heavy weather, the best course to steer is:

- a. stern to sea
- b. head to sea
- c. beam to sea
- d. about 20° off the sea

Question 54 (1 Mark)

If a tug is towing from its stern using a bridle, the angle between the two parts of the bridle should not be:

- a. more than 30°
- b. less than 40°
- c. less than 30°
- d. more than 10°

Question 55 (1 Mark)

If a liferaft is being launched on the _____ side of a vessel, it is vital to ensure that the vessel will not capsize on top of the raft.

Question 57 (1 Mark)

Regular care and maintenance inspections must include a check that portable fire extinguishers are free of damage or _____ .

Question 58 (1 Mark)

For the protection of personnel, a shore gangway or brow should be rigged with a safety _____ .

Question 59 (1 Mark)

Before a crew member enters a tank to carry out an inspection, it must be well _____ .

Question 60 (1 Mark)

Onboard procedures must be in place, detailing how to deal with different emergencies, because it would be _____ to adopt similar procedures for all emergencies.

Question 61 (1 Mark)

An emergency response card dealing with disablement of the vessel, should include a recommendation to deploy a sea _____ .

Question 63 (1 Mark)

Rope less than 48mm can be uncoiled direct from the _____ of the coil.

Question 64 (1 Mark)

The direction in which to coil a left hand lay rope is _____ .

Question 65 (1 Mark)

Excessive heat will make natural fibre ropes _____ and brittle.

Question 66 (1 Mark)

A steel wire rope should be discarded if the total number of broken wires visible in a length equal to _____ times its diameter exceeds five per cent of the total number of wires constituting the rope.

Question 67 (1 Mark)

One end of a rope is fixed to a boat. The other end is free. What is the name of the section of the rope between the two ends?

- a. The lay
- b. The bight
- c. The standing part
- d. The round turn

Question 68 (1 Mark)

The safe working load of a 20 mm Grade 2 chain is approximately:

- a. 1.0 tonne
- b. 20.0 tonnes
- c. 0.2 tonnes
- d. 4.0 tonnes

Question 69 (1 Mark)

If the breaking strain of a Steel Wire Rope is 12 tonnes, its SWL would be approximately:

- a. 12 tonnes
- b. 6 tonnes
- c. 2 tonnes
- d. 4 tonnes

Question 70 (1 Mark)

At no time must the _____ Load of a crane be exceeded.

Question 71 (1 Mark)

Which of the following items would be considered part of the anchor gear?

- a. A Devil's claw
- b. A Charlie Noble
- c. A Rat's Tail
- d. A Gooseneck

Question 72 (1 Mark)

To enable them to be secured for sea, side scuttles should be fitted with

Question 73 (1 Mark)

When handling lines using a warping drum, synthetic lines:

- a. can be surged quickly
- b. must be surged slowly
- c. must never be surged
- d. can be surged safely

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