

TDMMF201A
RESPOND TO NAVIGATIONAL EMERGENCIES
THEORY ASSIGNMENT

PASS MARK = 42
TOTAL MARKS AVAILABLE = 70

Element 1- Take action prior to and during a nav. emergency

Describe to your assessor or write a short answer, using diagrams if required, to the following questions.

Question No.1

Describe what is meant by musters and drills.

Question No.2

What collision regulation rules apply to use of radar?

Question No.3 (4 marks)

List four International code single letter signals.

Question No.4

What is Rule 5?

Question No.5

What is the best method to turn a vessel to recover a MOB?

Question No.6

List the elements of a masters brief to the crew when organising a search for a person lost overboard?

Question No.7

How is the probable position is found from the LKP (allow for wind and current)?

Question No.8

What is the relationship of coverage factor to sweep width and track spacing?

Question No.9

How would you navigate an expanding square search?

Question No.10

When can a sector search be most effective?

Question No.11 (12 marks)

List twelve distress signals.

Element 2- Perform damage control measures after a navigational emergency

Describe to your assessor or write a short answer, using diagrams if required, to the following questions.

Question No.1

Life buoys with buoyant line and light must:

- a. be stowed in a life boat or life raft.
- b. be stowed in the bridge and permanently secured to the vessel.
- c. not be permanently secured to the vessel in any way.
- d. be stowed on the main deck secured to the gang way or gang plank.

Question No.2

Routine maintenance of portable fire extinguishers should include a check of the:

- a. shell thickness.
- b. makers name.
- c. metal maintenance tag.
- d. approval number.

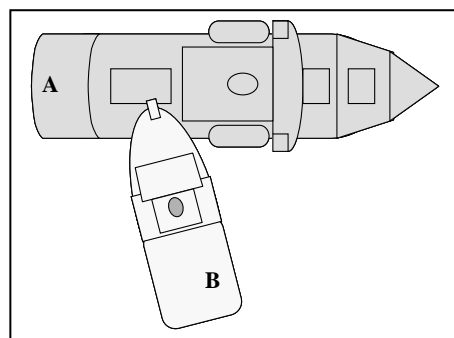
Question No 3

Your vessel has developed a severe list so you decide to throw surplus deck gear overboard. By law, the only time you can jettison material is if:

- a. it is putting your vessel or crew in danger.
- b. it will sink.
- c. it is slowing your vessels progress.
- d. it is no longer required for the safe operation of the vessel.

Question No.4 (4 marks)

In the diagram below Vessel B has pierced the hull of Vessel A and it is clear that the engine room and two other compartments are going to flood. Discuss as Master of Vessel B, what action you will take?



Question No.5

Your 12 metre single screw vessel has suffered a fractured rudder stock. Describe how you could achieve basic steering control for a slow speed return to harbour.

Question No.6

List the legal requirements when involved in a collision?

Question No.7

Freeing ports should be blocked in heavy weather to prevent water from flooding the decks.

TRUE FALSE

Question No.8

Describe the usual symptoms of a propeller fouled by rope or wire. What measures can be taken to clear the propeller?

Question No.9 (2 marks)

Whilst at sea in your 10 metre 2C rescue vessel, with 10 passengers onboard, you see smoke curling up from the engine room hatch. Describe your actions.

Element 3- Manage the abandonment of the vessel

Describe to your assessor or write a short answer, using diagrams if required, to the following questions.

Question No.1

What is the signal to abandon ship?

Question No.2

The emergency pack inside a liferaft usually contains:

- a. warm clothing and hats for the survivors.
- b. tents and other materials for when you get ashore.
- c. water, tinned food and fruit, with a first aid kit.
- d. water, first aid kit, rations and survival equipment.

Question No 3 (5 marks)

List the steps to launch, right and board a liferaft.

Question No.4

Vessels operating more than 30 nautical miles to sea are required to carry:

- a. SOLAS lifejackets.
- b. personal flotation devices Type 1.
- c. life rings for every person.
- d. coastal lifejackets.

Question No.5

If being lifted by a rescue helicopter, the signal to lift is

- a. body arched backwards, arms crossed
 - b. arms extended, hands performing circling motion
 - c. arms held in front, hands clasping wrists
- arms extended horizontally, fingers clenched, thumbs up.

Element 4- Re-float a grounded vessel

Describe to your assessor or write a short answer, using diagrams if required, to the following questions.

Question No.1

Using full astern immediately after grounding is the best way to get off safely.

TRUE FALSE

Question No.2

A steep shelving shore is a most suitable site to beach a vessel.

TRUE FALSE

Question No 3

If your vessel touches bottom, but quickly floats off on the rising tide you should:

- a. monitor the soundings in bilges, integral tanks and void spaces.
- b. radio a securite and continue your passage as normal.
- c. trim the vessel by the bow in case of damage to the stem and keel.
- d. close all the hatches and speed back to your berth to assess the damage.

Question No.4

On a falling tide, in sheltered waters, your vessel has grounded and is holed. You should:

- a back it off into deep water before the tide goes out.
- b close watertight compartments and limit further damage while aground.
- c abandon ship immediately.
- d lay out an anchor in front to pull you over the bank.

Question No.5

If you run aground:

- a. it is not necessary to tell anyone about it.
- b. you only need to report this if it occurs within Port Limits.
- c. it is not necessary to report this if there is no damage to the vessel.
- d. all groundings must be reported to the appropriate Marine Authority.

Question No.6

In order to carry out of maintenance to your vessel's hull, you are planning to beach it for a few days. The best time of the month would be:

- a before the full moon.
- b a few days after the full moon.
- c at night time.
- d on the top of the king tides.

Question No.7

Listing a deep keeled vessel that has gone aground may enable her to float off.

TRUE FALSE

Element 5- Coordinate emergency towing operations

Describe to your assessor or write a short answer, using diagrams if required, to the following questions.

Question No.1 (3 marks)

List the precautions prior to and during the taking of a tow.

Question No.2

You are off the coast, and about to take a small vessel in tow. You should:

- a. always increase speed quickly after connecting up.
- b. take the strain as soon as possible after connecting up.
- c. always increase speed slowly after connecting up.
- d. let the other vessel fall downwind after connecting up.

Question No 3

When towing in heavy weather, the towline should be:

- a. as long as practicable.
- b. weighted to provide elasticity.
- c. as short as practicable.
- d. doubled up to provide elasticity.

Question No.4

- a. periodically "freshen the nip".
- b. regularly vary the towing speed.
- c. only use synthetic rope.
- d. only tow from the stern.

Question No.5

The responsibility to direct a towing operation lies with the towed vessel.

TRUE FALSE

Question No.6

The shorter the towrope used in a towing operation, the less chance the tow will yaw.

TRUE FALSE

Question No.7

When the tug is positioned behind the beam of the vessel she is parallel towing, she will have the tow under the best control.

TRUE FALSE

Question No.8

When towing across a coastal river bar using a floating towline, its length should be:

- a. the length of the wave crest to wave crest outside the bar.
- b. the length of the wave crest to wave crest on the bar.
- c. half the length of the wavelength on the bar.
- d. one and a half times the length of the wavelength on the bar.

Question No.9

The concern for a tug with a short tow on a heavy vessel going down a river "with" a strong current is that:

- a. of the tugs ability to get the tow moving.
- b. the towed vessel will have no steering.
- c. the towing operation will be prolonged and slow.
- d. manoeuvres to stop an overtaking tow would put the tug at risk of capsize.

Question No.10

To approach a vessel of similar drift rate to your own in order to pass a tow you should:

- a. approach him at 90 degrees and stop upwind, to pass the tow.
- b. approach him at 90 degrees and stop downwind, to pass the tow.
- c. overtake on his side then manoeuvre to just ahead on his heading.
- d. overtake on his weather side, then manoeuvre to just ahead, facing his bow.

Question No.11 (4 marks)

Draw and name on the sketch below the ropes that you would use to parallel tow the vessel B. by using the vessel marked A. as the tug:

