

**CHECK YOUR PROGRESS  
ENGINEERING 1**

(printable pdf)

**NAME:**  
(answers)

**View**

<a href="#">TDMMR3007B</a>	1 Operate and carry out basic service checks on small vessel marine propulsion systems
<a href="#">TDMMR3107B</a>	2 Operate and carry out basic servicing on auxiliary systems
<a href="#">TDMMR3207B</a>	3 Operate and carry out basic routine servicing of marine extra low/low voltage electrical systems

**TDMMR3007B PROPULSION**

**Question 1 (1 Mark)** Validates to TDMMR3007B element 1a

Before starting a motor you should consult the manufacturer's \_\_\_\_\_ manual.

**Question 2 (1 Mark)** Validates to TDMMR3007B element 1a

To test the serviceability a vessel's propulsion system it must be continuously run at:

- a. full load
- b. overload
- c. operating load
- d. without load

**Question 3 (1 Mark)** Validates to TDMMR3007B element 1a

A likely cause of an alarm continuing to sound after starting a small diesel engine is:

- a. low alternator charging
- b. motor overload
- c. low operating temperature
- d. low oil pressure

**Question 4 (1 Mark)** Validates to TDMMR3007B element 1a

Engine temperature and oil pressure gauges need not be monitored until underway.

TRUE

FALSE

**Question 5 (1 Mark)** Validates to TDMMR3007B element 1b

Tank contents is properly measured by sight gauge or \_\_\_\_\_ .

**Question 6 (1 Mark)** Validates to TDMMR3007B element 1b

Before departure, fuel tanks should be filled to:

- a. full
- b. half full
- c. sufficient for the voyage
- d. sufficient for the voyage plus 20% in reserve

**Question 7 (4 Marks)** Validates to TDMMR3007B element 1b

List four standard pre-departure checks for a small diesel engine:

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**Question 8 (1 Mark)** Validates to TDMMR3007B element 1c

Bleeding a fuel system removes the:

- a. oil
- b. salt
- c. air
- d. water

**Question 9 (1 Mark)** Validates to TDMMR3007B element 1c

The quickest method to stop a small diesel engine is to:

- a. smother the air intake
- b. shut off the fuel
- c. engage the brake
- d. turn off the ignition

**Question 10 (1 Mark)** Validates to TDMMR3007B element 1c

During warm up of a water cooled engine, the heat exchanger's thermostat:

- a. isolates the raw water pump
- b. shuts down raw water flow
- c. increases raw water flow
- d. bypasses the heat exchanger

**Question 11 (1 Mark)** Validates to TDMMR3007B element 1c

A thermostat separates raw cooling water from cooling fresh water.

TRUE

FALSE

**Question 12 (1 Mark)** Validates to TDMMR3007B element 1c

In a diesel engines exhaust, blue exhaust smoke indicates unburnt fuel.

TRUE

FALSE

**Question 13 (1 Mark)** Validates to TDMMR3007B element 1c

In a diesel engines exhaust, white exhaust smoke indicates burning oil.

TRUE

FALSE

**Question 13 (1 Mark)** Validates to TDMMR3007B element 1c

In a diesel engines exhaust, black exhaust smoke indicates overload.

TRUE

FALSE

**Question 14 (1 Mark)** Validates to TDMMR3007B element 1c

Very high oil pressure on starting a diesel engine, indicates that the:

- a. oil filter bypass valve is faulty
- b. sump oil level is too high
- c. sump oil level is too low
- d. oil pressure relief valve is faulty

**Question 15 (1 Mark)** Validates to TDMMR3007B element 2a

The fuel and air mixture in a diesel engine is ignited by the:

- a. heat generated in the compression stroke
- b. heat supplied by the glow plug
- c. electronic ignition system
- d. spark plug

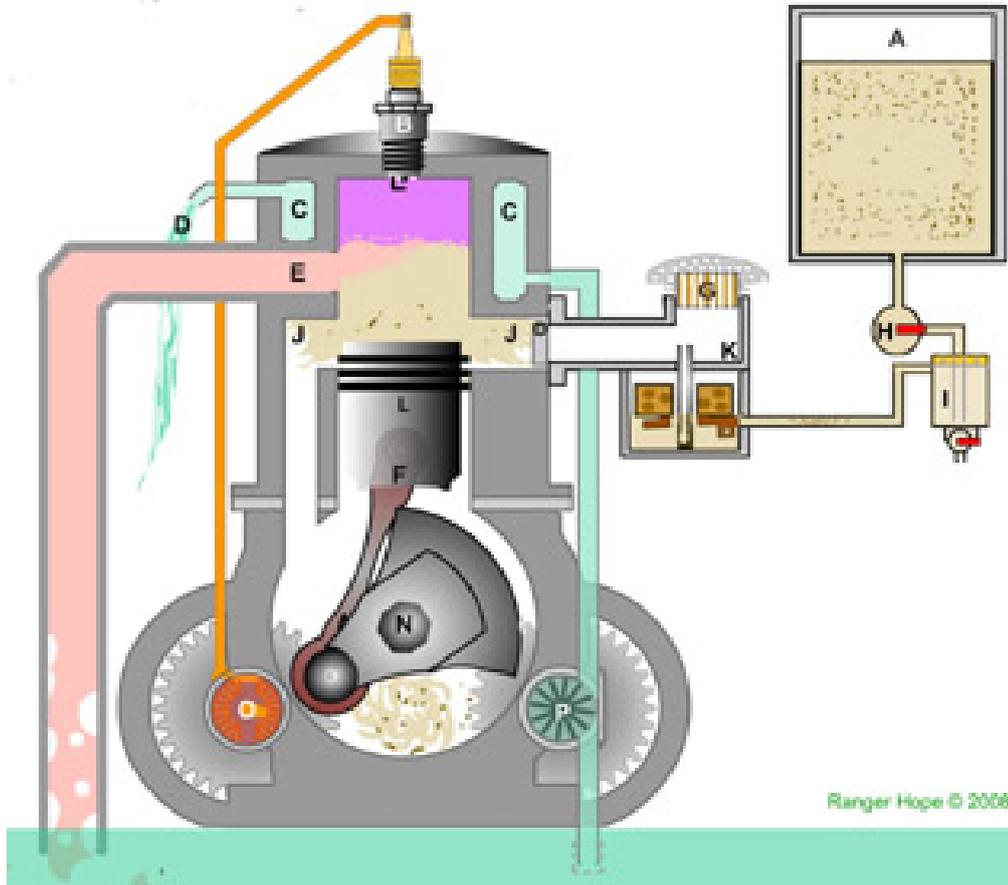
**Question 16 (4 Marks)** Validates to TDMMR3007B element 2a

Match the components of a petrol motor with the description on the right:

- |                  |                                     |
|------------------|-------------------------------------|
| 1. Ignition coil | a. generates high voltage current   |
| 2. Distributor   | b. Ignites the fuel-air mixture     |
| 3. Spark plugs   | c. an electrical switch             |
| 4. Solenoid      | d. distributes high voltage current |

**Question 17 (8 Marks)** Validates to TDMMR3007B element 2a

Name the parts of a two stroke petrol engine labelled below:



A= \_\_\_\_\_

B= \_\_\_\_\_

C= \_\_\_\_\_

D= \_\_\_\_\_

E= \_\_\_\_\_

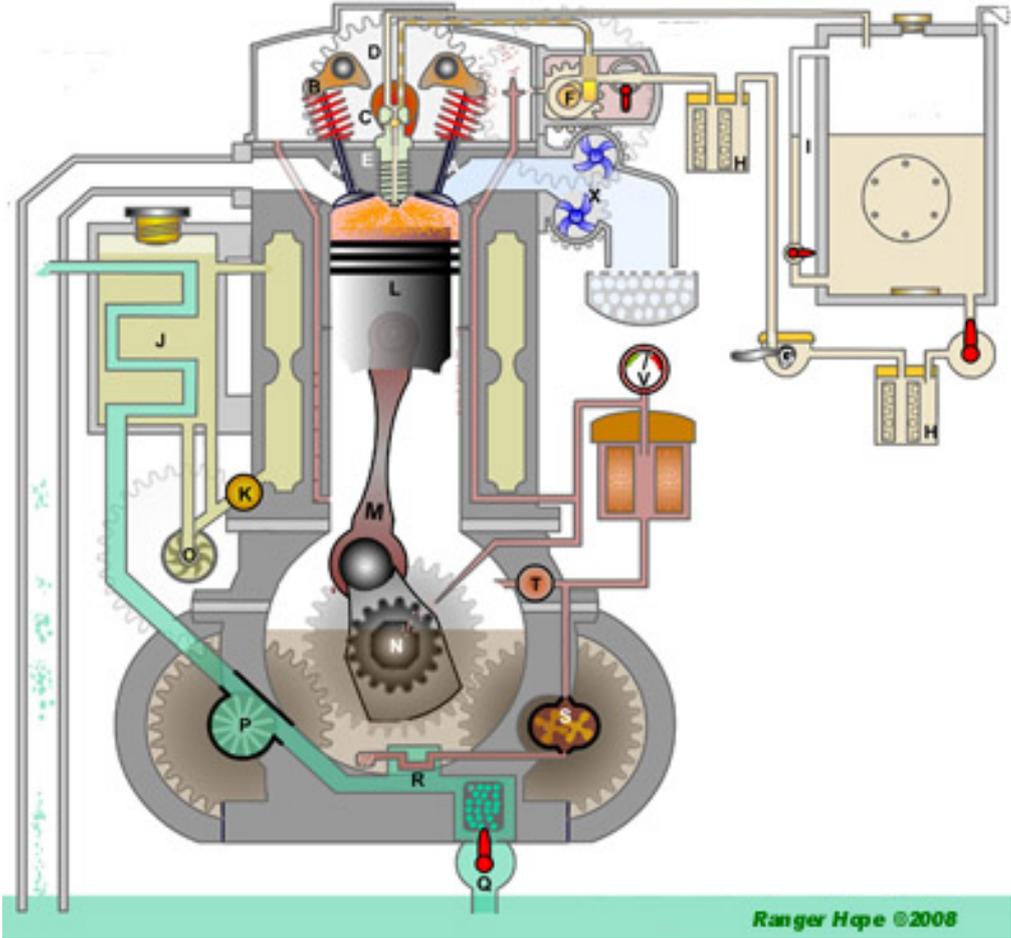
J= \_\_\_\_\_

L= \_\_\_\_\_

N= \_\_\_\_\_

**Question 18 (8 Marks)** Validates to TDMMR3007B element 2a

Name the parts of a four stroke diesel engine labelled below:



D= \_\_\_\_\_

C= \_\_\_\_\_

F= \_\_\_\_\_

J= \_\_\_\_\_

L= \_\_\_\_\_

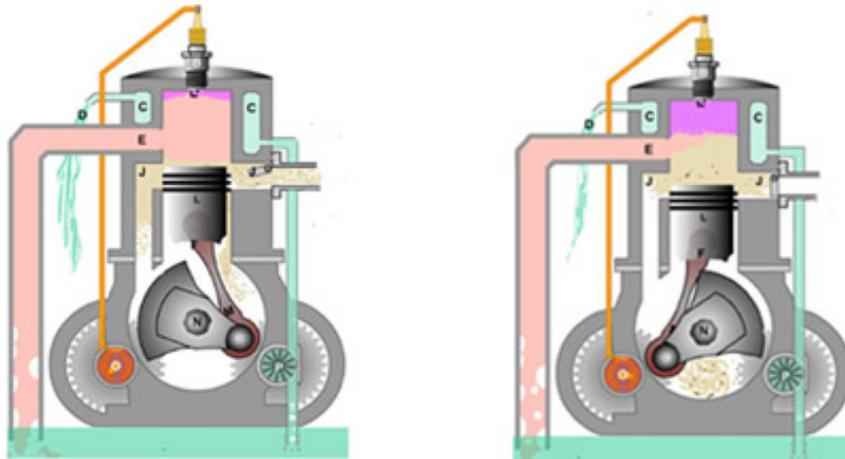
M= \_\_\_\_\_

K= \_\_\_\_\_

T= \_\_\_\_\_

**Question 19 (2 Marks)** Validates to TDMMR3007B element 2a

Name the two strokes of the diesel engine cycles labelled below, A, B, C & D:



A & B= \_\_\_\_\_

C & D= \_\_\_\_\_

**Question 20 (1 Mark)** Validates to TDMMR3007B element 2a

A four stroke diesel engine requires inlet and outlet valves.

TRUE

FALSE

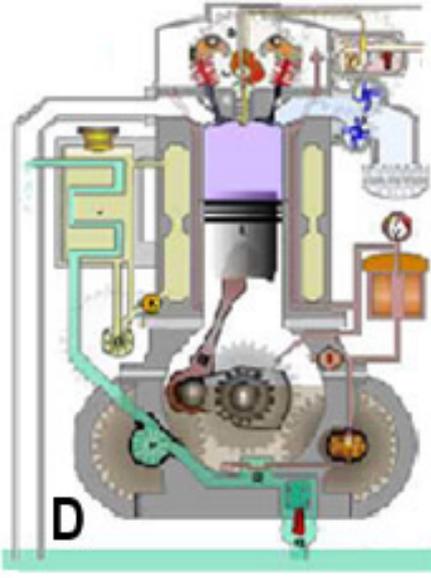
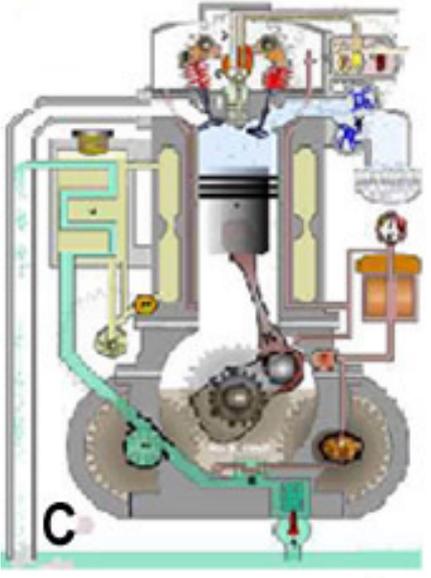
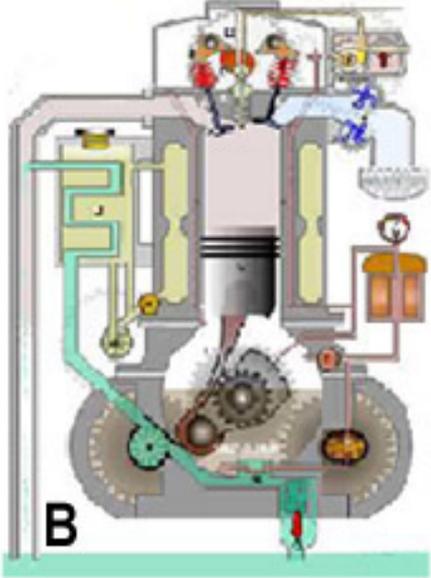
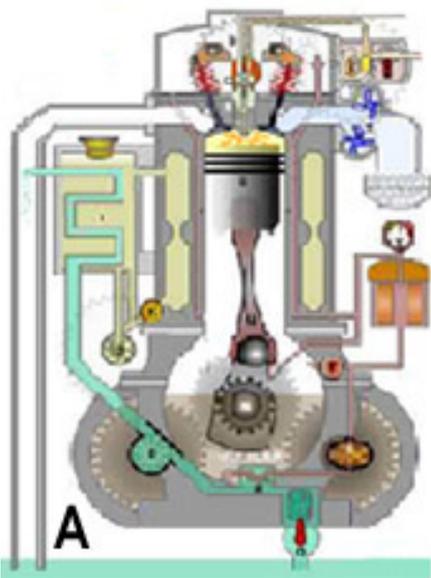
**Question 21 (1 Mark)** Validates to TDMMR3007B element 2a

A fuel oil transfer pump delivers fuel to the:

- a. daily service tank
- b. injectors
- c. double bottom tanks
- d. lubricating oil tank

**Question 22 (4 Marks)** Validates to TDMMR3007B element 2a

Name the four strokes of the diesel engine cycles labelled below, A, B, C & D:



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A= \_\_\_\_\_

B= \_\_\_\_\_

C= \_\_\_\_\_

D= \_\_\_\_\_

**Question 23 (1 Mark)** Validates to TDMMR3007B element 2a

Fuel tanks of more than 800 litres capacity, must have a \_\_\_\_\_ for inspections and cleaning.

**Question 24 (1 Mark)** Validates to TDMMR3007B element 2b

An oil injected two stroke outboard motor requires oil to be added in the fuel tank.

TRUE

FALSE

**Question 25 (1 Mark)** Validates to TDMMR3007B element 2b

A sight gauge:

- a. must be left open
- b. must be made of glass
- c. must have a self closing valve at its lower end
- d. must be read hourly

**Question 26 (1 Mark)** Validates to TDMMR3007B element 2b

List three regular checks that you would make on the motor's status during a short passage:

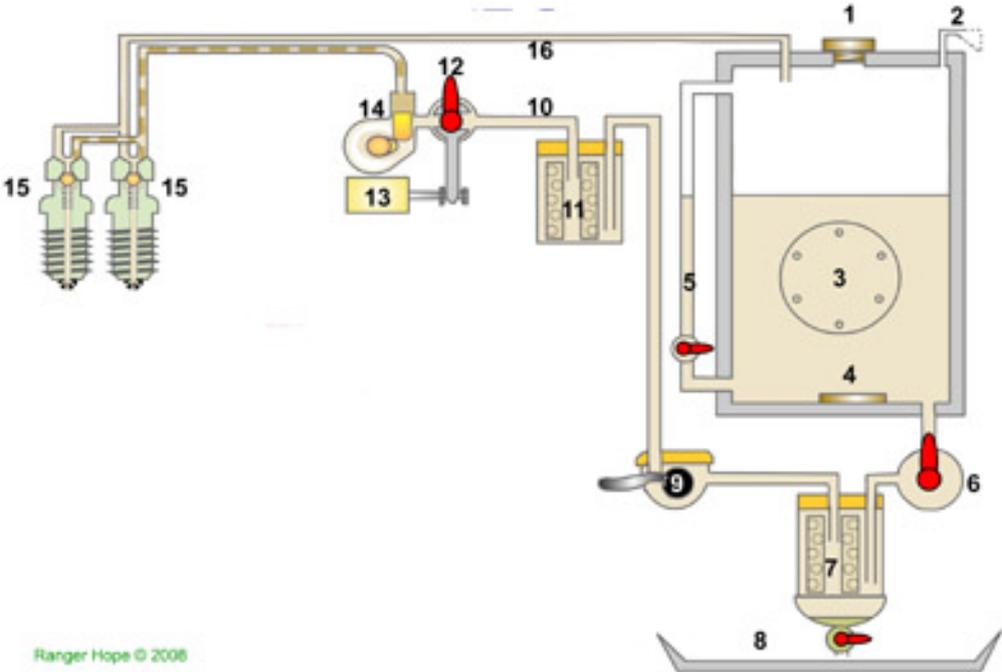
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**Question 27 (15 Marks)** Validates to TDMMR3007B element 2b

Name the parts of a diesel fuel system marked 1 - 15:



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1= \_\_\_\_\_

2= \_\_\_\_\_

3= \_\_\_\_\_

4= \_\_\_\_\_

5= \_\_\_\_\_

6= \_\_\_\_\_

7= \_\_\_\_\_

8= \_\_\_\_\_

9= \_\_\_\_\_

10= \_\_\_\_\_

11= \_\_\_\_\_

12= \_\_\_\_\_

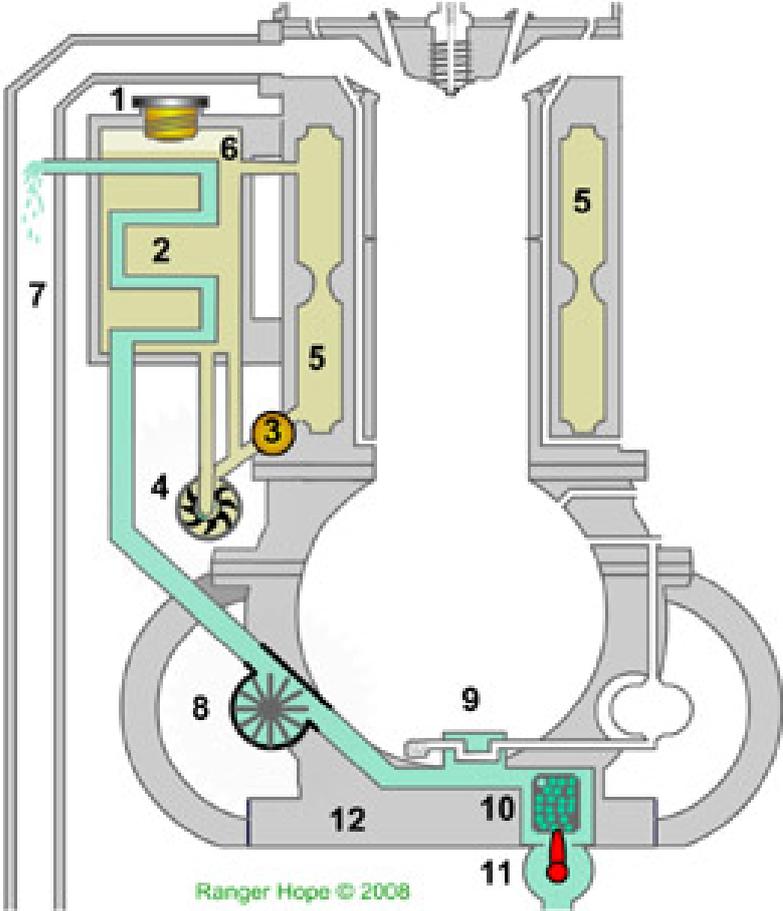
13= \_\_\_\_\_

14= \_\_\_\_\_

15= \_\_\_\_\_

**Question 28 (12 Marks)** Validates to TDMMR3007B element 2b

Name the parts of a cooling system marked 1 - 12:



1= \_\_\_\_\_

2= \_\_\_\_\_

3= \_\_\_\_\_

4= \_\_\_\_\_

5= \_\_\_\_\_

6= \_\_\_\_\_

7= \_\_\_\_\_

8= \_\_\_\_\_

9= \_\_\_\_\_

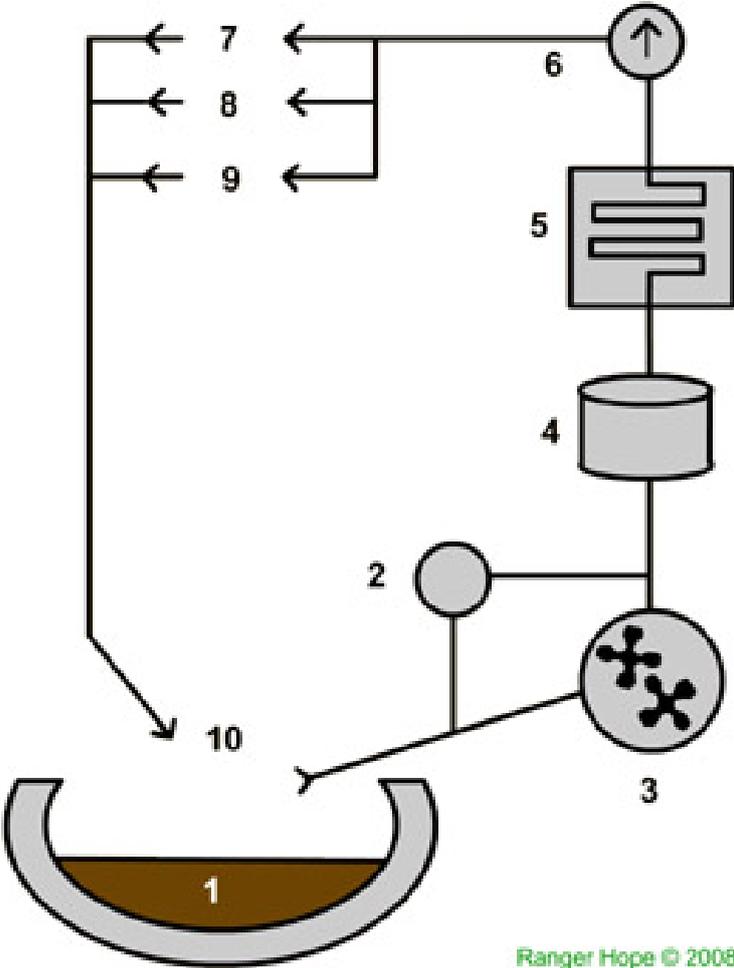
10= \_\_\_\_\_

11= \_\_\_\_\_

12= \_\_\_\_\_

**Question 29 (10 Marks)** Validates to TDMMR3007B element 2b

Name the parts of a lubrication system marked 1 - 10:



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1= \_\_\_\_\_

2= \_\_\_\_\_

3= \_\_\_\_\_

4= \_\_\_\_\_

5= \_\_\_\_\_

6= \_\_\_\_\_

7= \_\_\_\_\_

8= \_\_\_\_\_

9= \_\_\_\_\_

10= \_\_\_\_\_

**Question 30 (1 Mark)** Validates to TDMMR3007B element 2c

Plastic fuel lines are permitted on commercial vessels.

TRUE

FALSE

**Question 31 (1 Mark)** Validates to TDMMR3007B element 2c

Define the following terms:

Inspection

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Examination

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Proof test

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Isolate

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**Question 32 (1 Mark)** Validates to TDMMR3007B element 3a

Mechanical items that are found to be faulty must be:

- a. tagged and repaired
- b. isolated, tagged and repaired or replaced
- c. repaired at the scheduled maintenance period
- d. left for the engineer to find

**Question 32 (1 Mark)** Validates to TDMMR3007B element 3a

A "save all":

- a. filters fuel
- b. collects fuel spills
- c. reduces oil consumption
- d. is a life float

**Question 33 (1 Mark)** Validates to TDMMR3007B element 3a

While re-fuelling \_\_\_\_\_ equipment must ready on hand and \_\_\_\_\_ signs present.

**Question 34 (1 Mark)** Validates to TDMMR3007B element 3a

Filler pipes are placed so that spillage does not \_\_\_\_\_ a vessel.

**Question 35 (1 Mark)** Validates to TDMMR3007B element 3a

The following precaution is not essential when re-fuelling.

- a. shut the engine room hatch
- b. turn off the battery switch
- c. ban smoking
- d. close the fuel line valve

**Question 36 (1 Mark)** Validates to TDMMR3007B element 3b

If the exhaust of your marine diesel motor starts to blow copious black smoke then you should reduce throttle.

TRUE

FALSE

**Question 37 (1 Mark)** Validates to TDMMR3007B element 3b

If your motor stopped one night within a busy channel, your first action would be to:

- a. row
- b. anchor
- c. display not under command lights
- d. display restricted in ability to manoeuvre lights

**Question 38 (3 Marks)** Validates to TDMMR3007B element 3b

A damage control plan can be summarised by the phrase to **FIRM** things up - Find the problem, inspect/isolate it, report/repair it and the monitor the repair.

Write a brief plan for the damage that I have found for you below.

<b>F</b>	You find that you have a large fuel spill entering the water during re-fuelling.
<b>I</b>	<hr/> <hr/> <hr/>
<b>R</b>	<hr/> <hr/> <hr/>
<b>M</b>	<hr/> <hr/> <hr/>

**Question 39 (1 Marks)** Validates to TDMMR3007B element 3c

Response is most effective if the crew are practiced in \_\_\_\_\_ drills.

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