

**MERCHANT MARINE ACADEMY OF MACEDONIA
SCHOOL OF ENGINEERS**

STUDENT'S FULL NAME:

STUDENT NUMBER:

Academic year: 2017-2018

Exam period: March

Date: 14/3/2017

Semester: A

Instructor's name: Dr M. Tsompanoglou

FINAL TEST in English (Retakes)

1. Underline the correct choice. (10 points)

In order to hold an object firmly in its place while work is done, we use a (**grinder, fitter's vice, lathe**).

In order to cut internal threads we use (**cutters, taps, snips**).

In the 2-stroke diesel engine one cycle of operation is completed in (**one, two**) revolutions of the crankshaft.

The camshaft is connected to the rocker arm with the (**push rod, piston rod, connecting rod**).

We use a (**screwdriver, spanner, hammer**) to tighten or loosen a nut.

A pair of (**pliers, calipers, dividers**) is used to measure thicknesses.

We smoothen and shape a surface with a (**scraper, reamer, file**).

Diesel engines are (**spark-ignited, compression-ignited**) engines.

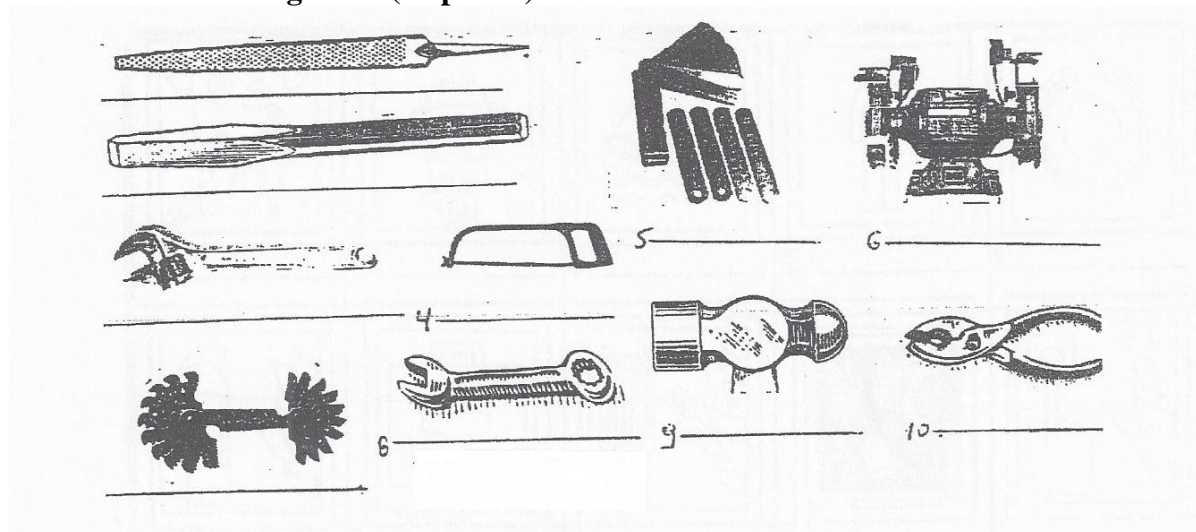
For hexagonal screws we use a(n) (**Allen key, open-ended spanner, ratchet wrench**).

With a (**screw-pitch gauge, feeler, reamer**) we measure very small distances.

2. Match the parts of the diesel engine to their functions. (10 points)

1. crankshaft	a. opens the valves
2. camshaft	b. reduces friction
3. piston	c. compresses the air
4. cylinder liner	d. supports the whole engine
5. piston rod	e. reciprocates in the stuffing box
6. connecting rod	f. rotates and gives motion to the propeller
7. bedplate	g. gives rotating motion to the crankshaft
8. crosshead	h. connects the piston rod to the connecting rod
9. piston pin	i. connects the piston to the connecting rod
10. crank pin	j. connects the connecting rod to the crankshaft

3. Name the following tools. (15 points)



4. Find the kinds of vessels that do the following: (15 points)

Tug, General cargo ship, Bulk carrier, Cable layer, Pilot tender, LPG, Reefer, Container, Clean-product tanker, Ro-Ro, SAR vessel, Lightship, Crude carrier, Icebreaker, Paxcar ferry

Carries loose cargo such as grain, iron, ore etc.:

Carries vehicles:

Carries refined petroleum products:

Lays cables on the bottom of the sea:

Crushes a way through ice:

Searches and rescues ships in distress:

Carries passengers and cars:

Serves as a beacon for navigation:

Carries any type of cargo in "boxes":

Carries refrigerated cargo:

Tows other vessels:

Carries any type of packaged cargo or pieces of machinery:

Carries crude oil:

Carries liquified petroleum gas:

Assists with the pilotage of another vessel:

5. Find which of the following crew members are responsible for the following duties:

Captain, fitter, oiler, chief engineer, chief officer, wiper, bosun, 2nd enginner, 2nd officer
(10 points)

Head of the deck department:

Head of the engine department:

Decides which engine repairs need to be done:

Keeps engine room crew overtime:

Supervises the O/S and the A/B:

Lubricates and greases parts of the machinery:

Cuts and welds pipes:

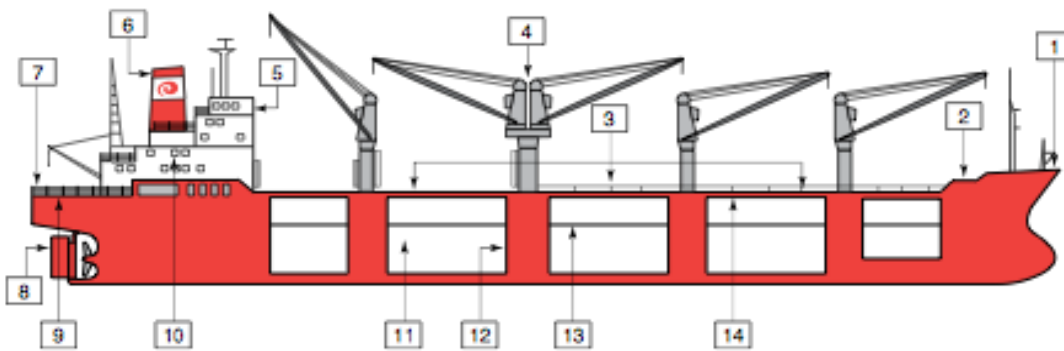
Cleans the engine room:

Representative of the company and responsible for the safety of the crew and the ship:

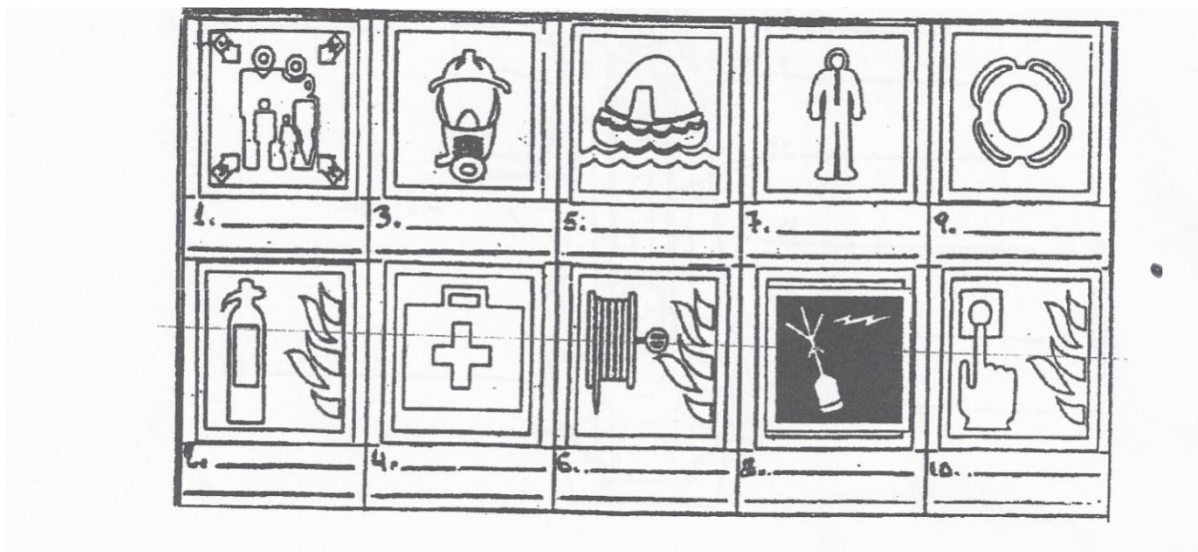
Second in command after the master:

6. Name the following parts of the vessel: (15 points)

- | | |
|-----|------|
| 1.: | 8.: |
| 2.: | 9.: |
| 3.: | 10.: |
| 4.: | 11.: |
| 5.: | 12.: |
| 6.: | 13.: |
| 7.: | 14.: |



7. Name the following life saving equipment. (10 points)



8. Name the parts in the following diagram of a 2-stroke diesel engine. (15 points)

