

MERCHANT MARINE ACADEMY OF MACEDONIA

SCHOOL OF ENGINEERS

Course: Maritime English

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Student number:

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FINAL TEST (RETAKES)

Exercise 1. (12 p.)

Complete the following sentences about diesel engines using the following words. There are 2 extra words.

connecting rod, piston rod, piston skirt, valve seats, ports, gudgeon pin, camshaft, exhaust, rotating, internal, external, reciprocating, push rod, inlet

- The lower part of the piston of a 2-stroke Diesel Engine is the
- In a 4-stroke Diesel Engine the piston is connected to the connecting rod with the
- The are housed on the cylinder head.
- In a 2-stroke Diesel Engine the piston rod is connected to the with the crosshead pin.
- The conventional 2-stroke Diesel Engine does not have an valve. It has scavenge
- The movement of the crankshaft is, while the movement of the piston is
- Diesel Engines are-combustion engines.
- The operates the valves with the help of the
- The reciprocates in the stuffing box.

Exercise 2. (10 p.)

Underline the correct choice.

- The steam which is collected in the steam drum of the boiler is **dry/superheated/saturated**.
- In the **condenser/ economizer/ deaerator**, the boiler feed water gets rid of oxygen and other gases.
- The **LP turbine/HP turbine/high pressure line** is larger due to the **extension/ expansion/ exhaust** of steam.

- In the reaction turbine the steam passes first through the **stationary/ reciprocating/ rotating** blades, where it **condenses / expands/ decreases**, and with increased speed enters the **stationary/ reciprocating/ rotating** blades and turns the rotor.
- The turbine **nozzles/stators/bearings** support the weight of the rotor.
- The upper rings of the piston are the **compression/oil scraping/ fire** rings.
- The upper part of the piston is the piston **crown/skirt/seat**.

Exercise 4. (11 p.)

Fill in the gaps with an appropriate term of boilers. There is one extra word.

fire-tube, water-tube, water drum, oil burners, steam drum, attemperator, salinometer, economizer, safety valve, furnace, atomizer, feed check valve

- The supply the fuel oil and air to the furnace.
- The is used to heat feed water before it goes into the steam boiler.
- The serves as a reservoir of water, and the holds some of the boiling water, but mainly serves as a storage space for steam.
- The reduces the temperature of the superheated steam.
- The releases any excess steam from the boiler.
- The controls the final entry of water into the boiler
- The measures the salinity of water.
- The boiler is also called Scotch boiler.
- The is a part of the oil burner that sprays the fuel.
- The is the place where air and fuel mix and burn.

Exercise 5. (15 p.)

Choose the correct auxiliary machinery.

- It supplies the ship with electrical power and lighting: *generator / motor / pump*
- They are used for cooling either oil or water: *coolers / heaters / compressors*
- The oil gets rid of water and other harmful substances in a / an: *incinerator / condenser / purifier*
- It is used to handle the cargo: *capstan / windlass / crane*
- It is used for fire-fighting: *fire extinguisher / firefighter / fire-alarm*
- It is used to transfer liquids: *pump / motor / generator*
- They are used to reduce the rolling of the ship: *fin stabilizers / davits / immobilizers*
- It drives another machine: *generator / stabilizer / windlass*

- It supplies compressed air for starting-up the engine: *air expansion / air compressor / air intake*
- It generates fresh water from sea water: *evaporator / sewage / condenser*
- It is necessary to operate the rudder: *launching gear / steering gear / davit*
- It is used to lower lifeboats to the sea: *launching gear / steering gear / blower*
- Garbage is burnt there: *sewage / incinerator / purifier*
- It is used for handling the anchor: *crane / capstan / windlass*
- It is used for handling mooring ropes: *windlass / capstan / crane*

Exercise 6. (10 p.)

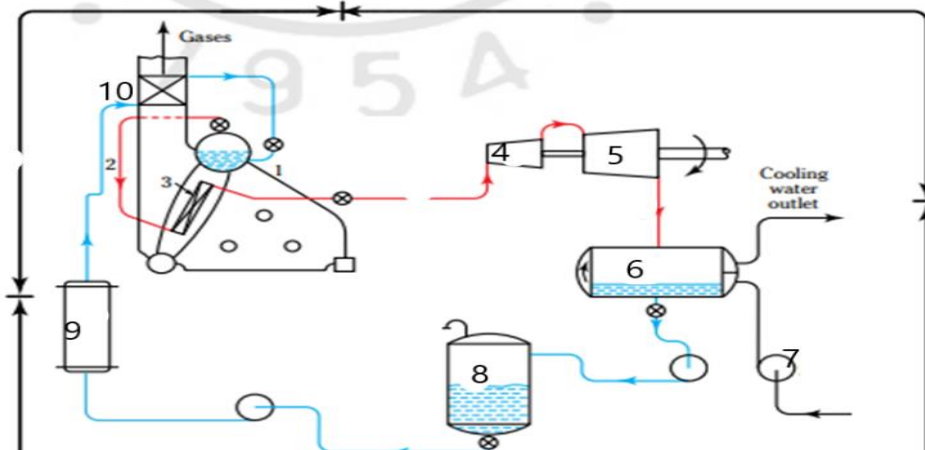
Match the following words to their synonym or explanation. (10 p.)

attenuator, fireproof, stationary, emission, malfunction, gauge, evaporate, inject, charge, combustion

- force liquid into.....
- fixed, not in motion.....
- turn from liquid into vapour.....
- measuring instrument.....
- irregular or abnormal function.....
- fill up with air.....
- not affected by fire.....
- discharge of gas, heat, radiation.....
- burning.....
- apparatus which decreases temperature.....

Exercise 7. (15 p.)

Complete the following diagram of a steam turbine using with the correct terms.



- 1..... 2..... 3..... 4..... 5.....
 6..... 7..... 8..... 9..... 10.....

Exercise 8. (12 p.)

Fill in the gaps with the appropriate type of pump using the following words:

vane, regenerative, rotary, screw, lobe, reciprocating, displacement, centrifugal, volute, single-acting ram pump, gear wheeled, diffuser

