

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

**Course: Maritime English**

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**FINAL EXAM**

**A. Insert an appropriate word in the gaps. (15 p.)**

*rotary    volute    displacement    vanes    reciprocating*

*centrifugal    casing    screws    multi-stage    impeller*

There are two main groups of pumps: the (1)\_\_\_\_\_ pumps and the (2)\_\_\_\_\_ pumps. The 1<sup>st</sup> group is subdivided into (3)\_\_\_\_\_ pumps in which a piston moves up and down, and (4)\_\_\_\_\_ pumps in which the moving part rotates. The rotating part can be gears, (5)\_\_\_\_\_, (6)\_\_\_\_\_, etc. The centrifugal pump on the other hand consists of a(n) (7)\_\_\_\_\_ which rotates at high speed inside the pump (8)\_\_\_\_\_. The most common type of centrifugal pump is the (9)\_\_\_\_\_ which has taken its name after the spiral case which surrounds the impeller. If the centrifugal pump has two or more impellers, it is (10)\_\_\_\_\_.

**B. Match the terms to their explanation underneath. (10 p.)**

*feed check valve    main stop valve    salinometer    drain valve    mountings*

*chemical dosing valve    lag    safety valve    soot blower    malfunction*

- delay between two events \_\_\_\_\_
- a valve to control the entry of water to the boiler \_\_\_\_\_
- a valve to remove water from the system \_\_\_\_\_
- a gauge to check the salinity of water \_\_\_\_\_
- fittings, such as gauges and valves of the boiler \_\_\_\_\_
- a valve which controls the passage of steam to the engine \_\_\_\_\_
- a valve which releases the excess of steam \_\_\_\_\_
- a valve for adding chemicals directly to the boiler \_\_\_\_\_
- it removes the black carbon particles from the tubes of the boiler \_\_\_\_\_
- irregular or abnormal function \_\_\_\_\_

**C. Fill in the missing prepositions to complete the following Standard Marine Communication Phrases (SMCP). (10 p.)**

*in after under with by on to of*

- I am \_\_\_\_\_ attack \_\_\_\_\_ pirates.
- I have dangerous list \_\_\_\_\_ port. I am \_\_\_\_\_ danger \_\_\_\_\_ capsizing.
- I am flooding \_\_\_\_\_ the engine room.
- I have collided \_\_\_\_\_ iceberg. Crew must abandon vessel \_\_\_\_\_ collision.
- I am \_\_\_\_\_ fire. I am \_\_\_\_\_ critical condition.

**D. Fill in the gaps with the following words. There are two extra words. (10 p.)**

*compressed impeller inlet skirt gudgeon B.D.C. rotor*  
*scavenge compression self-ignited T.D.C. crown*

- In a 4-stroke D.E. the piston is connected to the connecting rod with the \_\_\_\_\_ pin.
- The 2-stroke D.E. has \_\_\_\_\_ ports instead of a(n) \_\_\_\_\_ valve.
- The fuel is \_\_\_\_\_ because of the high temperature of the \_\_\_\_\_ air.
- The turbine \_\_\_\_\_ of the turbocharger is driven by the exhaust gases.
- At the end of the 1<sup>st</sup> stroke of a 4-stroke D.E. the piston is at the \_\_\_\_\_.
- The upper part of the piston is called \_\_\_\_\_ and the lower \_\_\_\_\_.
- The three upper part of the piston are \_\_\_\_\_ rings.

**E. Write the names of the four strokes of a 4-stroke diesel engine and describe the compression stroke. (20 p.)**

Names of the four strokes: 1. \_\_\_\_\_ 2. \_\_\_\_\_  
3. \_\_\_\_\_ 4. \_\_\_\_\_

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**F. Underline the correct choice. (7.5 p.)**

- In a **compressor / condenser** steam changes into water.
- In a **deaerating / balancing** tank water gets rid of air and other gases.
- The **service / condensate** pump draws the water from the **condenser / economiser** and discharges it into the **preheater / deaerating tank**.
- In a(n) **impulse / reaction** turbine the steam is directed from the nozzles against the stationary blades and turns the rotor.
- The reaction turbine is **more / less** efficient than the impulse turbine.
- In a steam plant of a reaction turbine, the **superheated / saturated** steam is fed into a **L.P. / H.P.** turbine first, where some of its **heat / mechanical** energy is converted into useful work.

**G. What must you do when you notice a man overboard? Write 5 (five) sentences. (consider the words: lifebuoy, alarm, lookout, Williamson turn, visual contact) (10 p.)**

1. I must \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_
4. \_\_\_\_\_
5. \_\_\_\_\_

**H. Which of the auxiliary machinery is used for... (7.5 p.)**

- reducing rolling of the ship? \_\_\_\_\_
- supplying the ship with electrical power and lighting? \_\_\_\_\_
- handling the cargo? \_\_\_\_\_
- transferring liquids from one place to another? \_\_\_\_\_
- burning the garbage? \_\_\_\_\_

**I. Supply the correct form of the word in parenthesis. (10 p.)**

- There is a great \_\_\_\_\_ (**vary**) of liquids on board.
- Fire \_\_\_\_\_ (**detect**) warn us of a fire in a place.
- Sometimes in case of oil spills you use \_\_\_\_\_ (**disperse**).
- You must test the atmosphere for toxic and \_\_\_\_\_ (**flame**) gas \_\_\_\_\_ (**concentrate**).
- I require medical \_\_\_\_\_ (**assist**).
- The \_\_\_\_\_ (**neglect**) or \_\_\_\_\_ (**accident**) dumping of oil into the sea is a serious offence.
- As \_\_\_\_\_ (**prevent**) is better than cure, it is important to obey the international anti-pollution \_\_\_\_\_ (**regulate**).

***GOOD LUCK!!!***