

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

**Course: Maritime English**

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**FINAL EXAM**

**A. Match the terms to their explanation. (15 p.)**

*soot blower    safety valve    desuperheater    furnace    feed check valve*  
*atomiser    main stop valve    oil burners    economiser    superheater*  
*condenser    steam drum    D.F.T.    water level indicator    mountings*

- A valve which releases the excess of steam: \_\_\_\_\_
- The place in the boiler where the fuel is burnt: \_\_\_\_\_
- A great number of small tubes which super heat the wet steam: \_\_\_\_\_
- They supply the fuel and air to the furnace: \_\_\_\_\_
- The upper drum of a water-tube boiler where the separation of water and steam occurs: \_\_\_\_\_
- A device by means of which a liquid is reduced to very fine spray: \_\_\_\_\_
- A heat exchanger that transfers heat from the gases of combustion to the boiler feedwater: \_\_\_\_\_
- It shows the level of water in the boiler: \_\_\_\_\_
- It removes the black carbon particles from the tubes of the boiler: \_\_\_\_\_
- A valve which controls the passage of the steam to the engine: \_\_\_\_\_
- A valve which controls the entry of water to the boiler: \_\_\_\_\_
- A device which cools exhaust steam back into water: \_\_\_\_\_
- fittings, such as gauges and valves of the boiler: \_\_\_\_\_
- A device for removing all or part of the superheat from steam by spraying water into it or by use of a heat exchanger: \_\_\_\_\_
- A tank in which water gets rid of air and other gases: \_\_\_\_\_

**B. Fill in the correct preposition to complete the following Standard Marine Communication Phrases (SMCP). (10 p.)**

- 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.

**C. Put the words below in the right gap. (15 p.)**

*diffuser enters vanes incoming exhaust vibration rotor impeller  
spiral cooled components consists contribute assembly silencer*

A turbocharger \_\_\_\_\_ of a single turbine wheel, the \_\_\_\_\_ of which is mounted on the same shaft as with the \_\_\_\_\_ of a centrifugal compressor. The compressor compresses the \_\_\_\_\_ air which is then \_\_\_\_\_ and \_\_\_\_\_ the scavenge air manifold. Besides the rotor, the turbine \_\_\_\_\_ has a stator too, that is, stationary \_\_\_\_\_ which direct the \_\_\_\_\_ gases to the rotor. On the compressor's side there is a \_\_\_\_\_ and a \_\_\_\_\_ casing, both of which \_\_\_\_\_ to the further rising of the pressure of the compressed air. There is also a \_\_\_\_\_ to absorb the noise of the \_\_\_\_\_ of the running \_\_\_\_\_.

**D. Write the names of the four strokes of a 4-stroke diesel engine and describe the compression stroke. (16 p.)**

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

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**E. Fill in the gaps with the following words. (10 p.)**

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

- 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.

**F. What must you do when you notice a man overboard? Write 5 (five) sentences. (consider the words: lifebuoy, alarm, lookout, Williamson turn, visual contact) (7.5 p.)**

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

**G. 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? \_\_\_\_\_

**H. Match the ship dimensions to their definitions. (6 p.)**

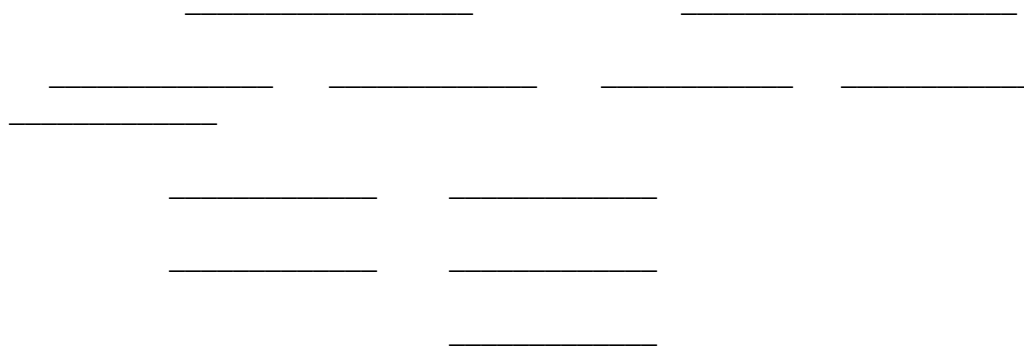
beam    depth    draught    length overall    air-draught    freeboard

- height from baseline to uppermost continuous deck:
- the distance between the water line and the top of the deck at the side:
- the vertical distance between the water line and the highest point of the ship:
- the maximum depth underwater:
- the horizontal distance over the extremities, from stem to stern:
- width (breadth) of the hull:

**I. Complete the diagram on pumps by filling in the 13 gaps. The words you need are given below. (13 p.)**

*lobe    rotary    double-acting    diffuser    centrifugal    reciprocating    volute  
regenerative    single-acting    gear-wheel    vane-type    displacement    screw-type*

**PUMPS**



**GOOD LUCK!!!**