

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

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Instructors:

Student's full name:

A.F.M.:

Date:

FINAL EXAM IN MARITIME ENGLISH

A. Fill in the gaps with the words from the list (15 p.)

decrease displacement volute volume discharge
centrifugal raise rotary impeller reciprocating

A pump is a device which is used to liquids from a low point to a high point. A pumping system aboard ships consists of a suction branch, a pump and a branch. There are two main groups of pumps in marine use: pumps and pumps.

In the former type, the increase or of the of the pump chamber causes the suction or discharge of the liquid. In the latter, there is a(n) rotating at high speed inside the pump casing.

The displacement pumps are subdivided into: pumps and pumps. On the other hand, the most common type of centrifugal pumps is the

B. Underline the correct choice. (10 p.)

1. Fin stabilisers are used to: a) **cover hatches**, b) **reduce rolling of the ship**.
2. A single-acting ram pump is: a) **a rotary pump**, b) **a reciprocating pump**.
3. The: a) **turning gear**, b) **steering gear** is necessary to operate the rudder for manoeuvring.
4. Fuel oil gets rid of water and other harmful substances in a(n): a) **separator**, b) **evaporator**.
5. a) **Motors**, b) **Generators** supply electricity on board.
6. The stroke which provides power for the propulsion of the ship is the: a) **combustion**, b) **compression**.
7. a) **Rotary**, b) **Reciprocating** pumps are used mainly for lub oil.
8. The crankshaft should be checked for: a) **reflection**, b) **deflection**.
9. The fuel is sprayed into the cylinder when the piston is almost at the: a) **bottom dead centre (B.D.C.)**, b) **top dead centre (T.D.C.)**.

10. The: a) **superheater**, b) **economiser** serves to heat the feeding water before it goes into the boiler.

C. Match the machinery to the definitions. (10 p.)

- | | |
|------------------------|---|
| 1. windlass | a. measures the salinity of water |
| 2. fire detectors | b. a device where garbage is burnt |
| 3. oil burners | c. cylindrical chamber which holds mainly steam |
| 4. atomiser | d. a cooler where steam changes into water |
| 5. salinometer | e. warn us of a fire in a place |
| 6. emergency generator | f. a device which reduces a liquid to very fine spray |
| 7. fireproof | g. handles the anchor |
| 8. incinerator | h. supply the fuel and air to the boiler furnace |
| 9. condenser | i. not affected by fire |
| 10. steam drum | j. provides power in emergency |

D. Match the incidents to the reasons which may cause them. (10 p.)

1. Collision	a. Explosion of a chemical container
2. Grounding	b. Lack of maintenance
3. Fire	c. Major flooding
4. Oil spill	d. Poor ventilation
5. Cargo contamination	e. Power failure
6. Engine breakdown	f. Foggy weather conditions
7. Rise of piston temperature	g. Bad cargo management
8. Instability and list of the ship	h. Uncharted rocky or low water
9. Sinking of the ship	i. Overflow during bunkering
10. Blackout	j. Inadequate lubrication

E. Choose the correct alternative (10 p.)

- The turbine of the turbo charger is driven by exhaust gases.
 a. rotor b. impeller c. diffuser
- A two-stroke diesel engine is a four-stroke diesel engine.
 a. as heavy as b. heavier than c. lighter than
- The screw pump is a pump which is mostly used for
 a. centrifugal b. reciprocating c. rotary
 a. boiler feeding b. lub oil c. ballast transfer
- The L.P. turbine is larger due to the of the steam because of the in pressure
 a. extension b. exhaust c. expansion
 a. decrease b. increase c. raise
- The is a machine which handles the mooring lines.

a. windlass

b. capstan

c. crane

6. The three upper piston rings are rings

a. compression

b. oil scraping

c. additional

7. The valve controls the passage of the steam to the engines.

a. safety

b. feed check

c. main stop

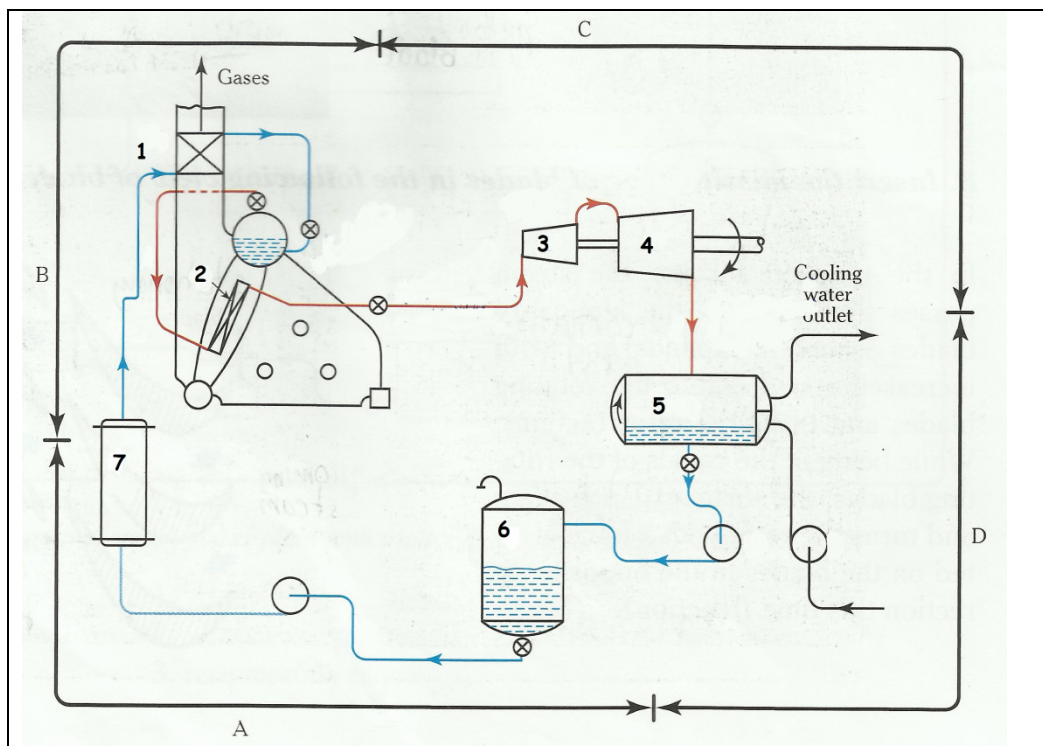
8. The desuperheater the temperature of steam.

a. decreases

b. raises

c. increases

F. Name the following parts of a steam power plant of a reaction turbine and describe its cycle of operation. (22.5 p.)



- 1.....
- 2.....
- 3.....
- 4.....
- 5.....
- 6.....
- 7.....

G. Fill in the gaps with the words from the list (22.5)

*adjusted cracks manuals maintain upper maintenance pittings
machinery scale breakdowns sediment disposal deposits filters
clearance*

How to operate and _____ an engine is given in details by the engine constructors to ensure efficient working of the _____. If these instructions are followed, then the _____ can be carried out regularly and properly and so _____ are minimised. The instructions are supplied in _____ and kept by the Chief Engineer but they are at the _____ of all engine room members. The fuel pumps should be examined and _____ as often as possible. Atomisers and _____ should be washed with paraffin and dried in a warm place. The valve seats should be tested for scratches and _____. The pistons should be examined for _____. They should also be tested for carbon _____ in cooling spaces and pipes. The _____ piston rings should be examined at least every month and when new ones are fitted, sufficient _____ should be allowed for expansion. Cylinder liners must be examined for _____ deposits externally. The lub oil sump tanks should be cleaned of _____.

GOOD LUCK!!!