

Merchant Marine Academy of Macedonia

School of Engineers

English Language

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Instructor's name:

NAME:

A.F.M.:

DATE:

FINAL EXAM

1. Fill in the gaps with the appropriate word from the list. (30 p.)

A.

two points operates injecting stroke

internal piston revolution air sequence

The diesel engine is a type of _____ combustion engine which ignites the fuel by _____ it into hot, high-pressure _____ in a cylinder. It _____ with a fixed _____ of events, which may be done either in four strokes or _____, a stroke being the travel of the _____ between its extreme _____. Each _____ is accomplished in half a _____ of the crankshaft.

B.

furnace place operation feedwater energy

boiler chamber combustion mountings air

A boiler is used to heat _____ in order to produce steam. The _____ released by the burning fuel in the boiler _____ is stored as temperature and pressure in the steam produced. All boilers have a furnace or combustion _____ where fuel is burnt to release its energy. _____ is supplied to the boiler furnace to enable _____ of the fuel to take _____. There must be a number of fittings or _____ which ensure the safe _____ of the boiler. Two basically different types of _____ exist, namely the watertube and the firetube.

C.

film crankshaft supplied pumps friction

crosshead cooler sumptank connecting bearing

The lubricating oil which is _____ to the various moving parts of the engine, decreases _____ and wear by forming an oil _____ between the moving parts. The lube oil is stored in the _____ below the engine. It is drawn from the tank through a strainer by pressure _____. Then it passes through fine filters and goes into a _____. First, the lube oil lubricates the main _____. Then passing along a passage in the _____, it lubricates the bottom end bearing and finally through a drilled passage in the _____ rod, it lubricates the gudgeon pin or _____ bearing.

2. Underline the correct choice. (15 p.)

The unit of electrical resistance is the ____.

Volt

Ohm

Ampere

_____ tonnage is the carrying capacity of a vessel in tons.

displacement

underdeck

dead-weight

The word 'gale' means:

fog

light rain

strong wind

Steam is ____.

invincible

invisible

invariable

A material which offers low resistance to an electric current is a(n) ____.

breaker

insulator

conductor

The lubricating grease is a mixture of petroleum oil and ____.

soap

paraffin

water

The ____ is used to heat the wet steam before it enters the main steam pipe.

condenser
economiser
superheater

We can store vegetable oil in a ____.

sack
barrel
bale

_____ are used to reduce friction between two metals.

cams
blades
bearings

The piston ____ inside the cylinder.

reciprocates
rotates
oscillates

3. Match the words to their synonym or explanation. Write the pairs in the lines below. There is an extra word. (10 p.)

crankshaft	empty
loop of wire	set free
collision	the main component of a diesel engine which transmits power to the flywheel
water jacket	meter, indicator
hollow	coil
gudgeon pin	connects the piston rod to the connecting rod of a reciprocating engine
bedplate	when two ships crash
gauge	maintains the desired temperature of the cylinder
release	shows the presence of sea water in the fresh water system
salinometer	a structure which holds the crankcase and supports the cylinder block
crosshead	

4. Answer any five (5) of the following questions. (20 p.)

1. What is the use of check valves?
2. What does a steam turbine consist of?
3. What is gross register tonnage?
4. a) What is the principle of operation of a diesel engine?
b) Write the names of the strokes of a 4-stroke diesel engine.
5. What are the parts of the forced lubricating system?
6. Name the main parts of a motor.
7. How many basic types of boilers are there?
8. What are the similarities between an electric motor and an electric generator?

5. Match the words in column A to appropriate ones in column B to form compound nouns. (10 p.)

A	B	
cam	bearing	_____
scavenge	valve	_____
ball	head	_____
cross	tight	_____
cylinder	shaft	_____
flow	ports	_____
air	meter	_____
throttle	rod	_____
crank	liner	_____
push	case	_____

6. Put the verbs into either the Simple Present or the Present Continuous. (15 p.)

The Second Mate _____ (supervise) work on deck and he _____ (study) the stowage plan at the moment.

A quayside crane _____ (lift) the cargo on board the ships.

The men are in the holds; they _____ (check) the ventilation system and the lights.

A ship _____ (moor) at a berth by the quay.

On a cargo vessel you _____ (usually/store) cargo in the holds or on the deck.

The crane _____ (load) the containers on board now.

It is important to secure or lash the cargo so that it _____ (not/shift) during a voyage.

Look! The engineers _____ (overhaul) the engines and the pipelines _____ (fill) the fuel tanks with fuel.

GOOD LUCK !!!