Merchant Marine Academy of Macedonia- School of Engineers						
Course: Maritime English	Academic year:2019-20	Exam period: July				
Semester: B Date:	Instructors: E. Xenitidou, M.	Tsompanoglou				
Student's name:						
Student's number:						
Exam paper grade:	Ins	structor's signature				
*						

Fill in the gaps with the word that is missing. The first letter is given. -10

During the first stroke of the DE, which is the **s**.....stroke, the intake valve is open and the piston is moving **d**...... In the 2^{nd} stroke of the 4 stroke DE which is the **c**......the piston is moving **u**.....and compresses the air. The **p**.....and the temperature rise. All valves are **c**......when the piston is almost at the TDC and the fuel is sprayed into the cylinder by the fuel injection **v**...... In the third stroke, the fuel is burnt and **c**...... gases push the piston down. Only this stroke provides **p**...... for the propulsion of the ship. The last stroke is the **e**.....

Find the synonyms of the words using the words that follow- 10

initiate	steam	condenser	convert	astern	
port	reciprocate	atomizer	burning	circulate	
*The is an apparatus that changes the steam into water by cooling					
it*part of the oil burner that sprays the fuel					
*is to cause to start *is					
change*is be in motion					
*is move back and forth*The vapour of water is					

*.....is the opposite of ahead*Combustion is

Find the auxiliary machinery. Use the words below-10

steering gear	launching gear	incinerator	sewage treatment plant	separator
windlass	electric motor	fin stabilizer	evaporator	capstan
 It is used to 	reduce the rolling	of the ship		
 It is used to 	burn garbage			
 Human bod 	y waste is treated b	biologically there		
 It is used to 	lower lifeboats to t	the sea		
 It is used to 	handle the moorin	g lines		
 It is used to 	produce distilled w	/ater		
o It is used to	manoeuvre the shi	p		
o Fuel is clear	ned in it			
 It is used to 	drive another mac	hine		

Fill in the gaps with the following words- 15

superheater	crown	economizer	stem	rotor
salinometer	skirt	top end semi shell	mounted	seat
attemperator	furnace	Impeller	burners	drum

Theis the place where fuel is burnt.

Thepre-heats the feeding water.

The is part of the connecting rod.

Theor spindle is part of the valve.

Theis at the bottom of the valve.

The upper part of the piston is theand the bottom part is the

A turbocharger consists of a single turbine wheel, theof which is

.....on the same shaft as with theof a centrifugal compressor.

Thehas a great number of small tubes and is used to heat the wet steam before it enters the main steam pipe.

The waterserves as a reservoir of water.

Themeasures how salty water is.

Thedecreases the temperature of the superheated steam.

Themay be placed either at the top of the boiler or at the bottom.

Fill in the gaps with the following words to make phrases - 10

indicator	feed	mooring	spare	main
circulating	steam	controllable	combustion	header

...... pitch propeller, check valve.stop valve, water level

......winch, cooling waterparts store,pump

Complete the gaps with the following words- 15 points

	airtight	blades	shaft	increased	steam	
	nozzles	rotating	opposite	impulse	stationary	
	rotor	turbine	reaction	expands	turn	
The ste	am	consists of a	mo	ounted on a	, that i	is free to
rotate.	The outer rim	of the rotor has	a set of curved	,	and the whole s	system is
enclose	d in a/ an	case. S	everal	direct the	e steam against th	ne blades
and		the rotor. In the		_ turbine, the		from the
nozzles	is directed aga	inst the blades and	turns the rotor.	In the	turbine, tl	he steam
passes	first through the	e	blades, where	it expands, and	with	
speed e	enters the	bla	ides and turns the	e rotor (action).	While being in the	rotating

blades, the steam ______ again and turns the rotor with a force exerted on the blades on the direction this time (reaction).



Choose the correct word- 20

- In a 4 stroke Diesel Engines the piston rod is connected to the connecting rod with the crosshead pin/ gudgeon pin/ connection pin.
- In a 4 stroke Diesel Engine the piston is connected to the connecting rod with the crank pin/ gudgeon pin/ connecting pin.
- The 2 stroke DE does not have an inlet valve/ piston rod/ crosshead. It has scavenge ports/ valves/ boxes.
- In the reaction type turbine the steam is fed from a high-pressure line into the high- pressure turbine through a/ an **drain/ throttle/ exhaust** valve.
- When the temperature of the steam falls below permissible limits, evaporation/ condensation/ concentration takes place.
- Displacement pumps are **unsuitable/ suitable/ proper** for very high speeds.
- In a **displacement/ centrifugal/ diffuser** pump the increase or decrease of the volume of the pump chamber causes the suction or discharge of the liquid.
- Multistage/ Double acting ram pumps/ reciprocating pumps are centrifugal pumps.
- Regenerative pumps are displacement reciprocating/ displacement rotary/ centrifugal pumps.
- In **reciprocating/ centrifugal/ displacement** pumps the liquid is thrown against the casing.
- Vane pumps are reciprocating displacement/ rotary displacement/ centrifugal pumps.
- In a **gear wheeled / centrifugal/ displacement** pump the vacuum is formed by the teeth on both wheels.
- The diffuser pump is a rotary/ displacement/ centrifugal pump.
- A single acting ram pump is a rotary/ reciprocating/ centrifugal pump.
- The diffuser type pump is used on **high/ low** pressure.
- On the compressor's side of the turbine assembly there is a manifold/ stator/ diffuser and a spiral casing both of which contribute to further rising/ raising/ decrease of the compressed air.
- The turbine bearing require special attention. They support the weight of the rotor and are **controlled/ divided/ adjusted** to maintain a **close clearance/ lag/ emission** between the stationary and rotating blades.



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ɛInstructors: E. Xenitidou, M. Tsompanoglou

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During the first stroke of the DE, which is the s.....stroke, the intake valve is open and the piston is moving d...... In the 2^{nd} stroke of the 4 stroke DE which is the c.....and the piston is moving u....and compresses the air. The p.....and the temperature rise. All valves are c.....when the piston is almost at the TDC and the fuel is sprayed into the cylinder by the fuel injection v..... In the third stroke, the fuel is burnt and c..... gases push the piston down. Only this stroke provides p...... for the propulsion of the ship. The last stroke is the e.....stroke.

Find the synonyms of the words using the words that follow- 10

initiate	steam	condenser	convert	astern
port	reciprocate	atomizer	burning	circulate
*is to cause to start			*	is change-

..... hole in the cylinder lineris be in motion

*.....is move back and forth*The vapour of water is *.....the opposite of ahead*Combustion is

*.....part of the oil burner that sprays the fuel

*The is an apparatus that changes the steam into water by cooling it

Find the auxiliary machinery. Use the words below-10

steering gear	launching gear	incinerator	sewage treatment plant	separator	
windlass	electric motor	fin stabilizer	evaporator	capstan	

It is used to burn garbage

• Human body waste is treated biologically there

It is used to manoeuvre the ship.....

• Fuel is cleaned in it.....

 \circ $\:$ It is used to reduce the rolling of the ship.....

o It is used to handle the anchor

• It is used to drive another machine.....

o It is used to lower lifeboats to the sea

- o It is used to handle the mooring lines
- It is used to produce distilled water

Fill in the gaps with the following words- 15

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	circulating	steam	controllable	combustion	header	
water	level	,	turbine,	ch	amber,	pitch
prope	ller,	check valv	/e	.stop valve, wa	ater wall	,
winch, cooling waterparts store,pump						

Complete the gaps with the following words- 15 points

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	nozzles rotating		opposite	impulse	stationary	
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