Merchant Marine Acader	my of Macedonia- School of Engi	neers
Course: Maritime English	Academic year:2024-25	Exam period: February
Semester: D Da	te: 04/ 02/ 25 Instructors: A. 1	Birbili, E. Xenitidou, M. Tsompanoglou
Student's name:		
Student's number:		
	Exam paper grade:	Instructor's signature

complete the sentend	es with the correct form	of the words in parentheses. (15 p.)
This part of the engi	ne is not easily	(access).
Start an	(add) auxiliary en	gine.
(condense) can occur whe	n warm air hits a cold surface.
You have to ensure	(satisfy	y) lubrication from the very beginning.
Report	(ready) of the e	ngine to the bridge.
You have to obtain	(permit	;) from the bridge to test main engine ahead
and astern on air.		
There is high	(accumulate) of	f ash and other contaminants.
Check the	(suitable) of	lube oil in the sump tank.
		ecause it turns into sulphuric acid.
Water has entered t	the bilge wells due to	(leak) in the pipelines.
Bilge wells are the	most important	(residue) collection tanks of the entire
engine room.		
You must make a	(compati	ible) test to see if you can mix these lube oils.
Always order fuel oi	I according to the ISO 821	7 (specify).
They use	(add) to improve lub	e oil quality and reduce the possibility of salt
water	(contaminate).	

State whether the following sentences are True (T) or False (F). (10 p.)

- ➤ New bunkers should be placed into empty tanks and can be used before analysis results are received.
- The main purpose of the ballast system is to store fresh water for the crew.
- When the "finished with engine" order is given from the bridge, change over from engine room control to bridge control.
- ➤ Bilge system valves allow for water flow in only one direction.
- According to MARPOL regulations, the residue of oil in the water that is pumped overboard must not exceed 15 ppm.
- The bilge system is an optional system on ships.
- ➤ When the ship is about to arrive in port, you must close the dampers for exhaust gas boiler and open bypass.
- Ballast is taken on board to increase the list of the ship.
- > The distribution valve chest is a kind of filter.
- ➤ Bilge systems are essential for the ship's engine room to prevent flooding.

Slop <u>s</u>				ord. (1					
	create								
While cleanir	_			rrect gr	avity d		i	s used	d.
D									
Present o	of	the mair	n engine i	s 1.000	kilowatts	5.			
Present p	of	propelle	er is 90 de	grees.					
Ensure the er	ngine room is fr	ee of I		obje	cts, oil sp	ills ar	nd hazar	ds.	
Engineers s	hould take co	ntinuou	s d		sampl	es at	the m	anifo	ld durin
bunkering.									
M	clear comm	nunicatio	n and cod	ordinati	on during	g engi	ne start	-up.	
Ensure firefig	hting e	a	nd emerg	gency re	esponse t	ools a	re avail	able.	
_					·				
Match the wor	ds from the list	to their	synonyn	ns belo	w. (15 p.)			
optional	replenish	versati		disma		foul	ed		
inoperative	comply with					strin	gent		
excess	adhere to		laneous				ntings		
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y:		fi++	tings:			1	not fund	tionin	α.
re than necessary	···		many uses	•			strict:	LIOTIIII	8.
l:	у.		t enough:				obey a rule:		
compulsory:			sassemble				improve		
ous:			ace under				follow, s		··
shifting	abrasive		vanadiu		grinding		-	ert	
1	(1 • .1 -		trimmed	trimmed mixture		centrifu		uging	
list	fluids			ı	IIIIXture				
particles	misunderst	anding	mud	J.	anti-hee			brica	
		anding	mud	<u>,</u>					
particles The vessel ne	misunderst	lasted in	order to	be	anti-hee	eling	lu entering	brica the d	nts Irydock.
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particles The vessel ne	misunderst	lasted in	order to	be	anti-hee	eling	lu entering	brica the d	nts Irydock.
particles The vessel ne Bilge water is	misunderst	asted in	order to sh water,	be sea wa	anti-hee	eling for e	entering , chemic	the d	rydock. Id variou
particles The vessel ne Bilge water is other	misunderst	asted in	order to sh water,	be sea wa	anti-hee	eling for e	entering , chemic	the d	rydock. Id variou
particles The vessel ne Bilge water is other	misunderst	lasted in of fre	order to sh water, pallast on	be sea wa board	ter, oil, s	eling for e	entering , chemic	the dataset one	rydock. Ind variou
particles The vessel ne Bilge water is other There are ma board A(n)	misunderst	lasted in of fre	order to sh water, pallast on	be sea wa board	ter, oil, s	eling for e	entering , chemic	the dataset one	rydock. Ind variou
particles The vessel ne Bilge water is other There are ma	misunderst eeded to be ball a a any reasons for system	asted in of fre taking t s used t	order to sh water, pallast on o control	be sea wa board the	ter, oil, s	eling for eludge of th	entering , chemic balla e vessel	the deals are	rydock. nd variou ce it is co
particles The vessel ne Bilge water is other There are mand board A(n) and discharging	misunderst eeded to be ball a a any reasons for system g. unication is req	lasted in of free taking be is used to uired to	order to sh water, callast on control ensure the	be sea wa board the	anti-hee ter, oil, s or	eling for eludge of th	entering , chemic balla e vessel	the deals are	rydock. nd variou ce it is o
particles The vessel ne Bilge water is other There are mand board A(n)	misundersi eeded to be ball a a any reasons for system g. unication is req d in serious acti	asted in of free taking keep to used to uired to vities tal	order to sh water, callast on control ensure the king place	be sea wa board the	anti-hee ter, oil, s or	eling for eludge of th	entering , chemic balla e vessel	the deals are	rydock. nd variou ce it is co
particles The vessel ne Bilge water is other There are ma board A(n) and discharging Good common	misunderst eeded to be ball a a any reasons for system g. unication is req d in serious acti . gas system op	asted in of free taking be a used to uired to vities tal erationa	order to sh water, callast on control ensure this king place	be sea wa board the hat the	anti-hee	eling for eludge of th	entering , chemic balla e vessel	the deals are st one during the bet	rydock. nd variou ce it is o ng loadir ween th
particles The vessel ne Bilge water is other There are ma board A(n) and discharging Good common people involved Is	misundersi reded to be balls a any reasons for system is required in serious action is required in serious action. gas system op box is a kind	asted in of free taking be a used to uired to vities tal erationa	order to sh water, callast on control ensure this king place	be sea wa board the hat the	anti-hee	eling for eludge of th	entering , chemic balla e vessel	the deals are st one during the bet	rydock. nd variou ce it is o ng loadir ween th
particles The vessel ne Bilge water is other There are ma board A(n) and discharging Good common people involved Is The	misunderst eeded to be ball a a	lasted in of free taking to used to vities tal erational d of filte	order to sh water, callast on control ensure thing place al?	be sea wa board the hat the on boa	anti-hee ter, oil, s or re is no ard.	of th	entering , chemic balla e vessel	the deals are st one during the d	rydock. Irydock. Irydock
particles The vessel ne Bilge water is other There are ma board A(n) and discharging Good commu people involved Is The choking the bilg Fuel pumps,	misundersi reded to be balls a any reasons for system d in serious acti . gas system op box is a kind ge pumps. fuel injectors,	lasted in of frem taking to the uired to vities tall erational dof filte cylinder	order to sh water, callast on control ensure thing place of the place	be sea wa board the hat the on boa revents	anti-hee ter, oil, s or re is no ard. s solid	of th	entering , chemic balla e vessel fro	the deals are st one during the ment	Irydock. Iry
particles The vessel ne Bilge water is other There are ma board A(n) and discharging Good commu people involved Is The choking the bilg Fuel pumps, wear if cat fine	misundersi eeded to be ball a a any reasons for system d in serious acti gas system op box is a kind ge pumps. fuel injectors, s in the fuel are	asted in of free taking to vities tal erational d of filte cylinder not red	order to sh water, callast on control ensure thing place of the control or which pure the contro	be sea wa board the hat the on boa revents	anti-hee ter, oil, s or re is no ard. s solid n rings ca	of th	entering, chemic balla e vessel fro	the deals are st one during the ment	rydock. Irydock. Iryd
particles The vessel ne Bilge water is other There are ma board A(n) and discharging Good commu people involved Is The choking the bilg Fuel pumps,	misundersi reded to be ball s a any reasons for system d in serious acti . gas system op box is a kind ge pumps. fuel injectors, s in the fuel are ating on high su	asted in of free taking to vities tal erational d of filte cylinder not red	order to sh water, callast on control ensure thing place of the control or which pure the contro	be sea wa board the hat the on boa revents	anti-hee ter, oil, s or re is no ard. s solid n rings ca	of th	entering, chemic balla e vessel fro	the deals are st one during the ment	rydock. Irydock. Iryd

..... tool.

Match the definitions that follow: Aluminium and silicon, Sediment, Water, Ash, Lub Oil Blending on Board, Density, Sulphur, Acid number, Flash point, Pour point, Viscosity, Elements: There are two extra words (10 p.)

It is expressed in kilograms	per cubic metre and it mainly	affects the fuel separation.
•	<u> </u>	uels. It is a parameter that is used
	ssible to add additives to the e	engine system oil and then utilise
in the oil. Their content shou		ytic fines, mainly Al2O3 and SiO2, sible by centrifuging the fuel oil
It detects all acids present;	uality criterion and is stated of the control is elevated it may be an in	
It is expressed as per cent l	by volume; it may cause corro	sion in the fuel system
Metals, like vanadium nicke	el, iron, sodium which may inc	crease the particulate emission
and the risk of exhaust gaswa	ay fouling	
It is a limit that is set as a s	afeguard against fire only	
It represents the incombust	tible components of fuel oil	
Choose the correct answer.	(10 p.)	
Rotate the by means of t	the turning gear and ensure t	hat all components are thoroughly
a) camshaft	b) tailshaft	c) crankshaft
Pump up the air bottles	to their maximum pressure ar	nd drain them of water.
a) service	b) scavenge	c) starting
When you turn the engine	with the turning gear, the o	ocks must be open.
a) drain	b) indicator	c) valve
international SOLAS rules.	ication have made up ru	ules which have to comply with
a) societies	b) groups	c) organisations
_		direct overboard discharge.
a) sludge	b) garbage	c) sewage
_	ve choose which bilge well the	
a) ballast	b) speed	c) list
is the residue of the shi tanks.	p's cargo of fuel oil together	with the water used to clean the
a) Sludge	b) Slop	c) Waste
, •	· ·	ks, wing tanks, fore and aft tanks
are usually used for ballast w		cs, wing tanks, fore and are tanks
a) peak	b) floor	c) hull
	•	res which do not allow the liquid to
a) non-return	b) two-way	c) throttle
.,	-, ₁	-,

A is a space in the lov	vest part of the ship where un	wanted water is collected.
a) sump	b) bilge	c) chain locker
are indicators of used	I lubricating oils in the fuel.	
a) Nickel and iron	b) Vanadium and silicon	c) Calcium, zinc and phosphorus
is a measure of the flo	uidity of a fuel at a certain ten	nperature.
a) Viscosity	b) Pour point	c) Density
indicates the coke-for	rming tendencies of a fuel.	
a) Sodium	b) Carbon residue	c) Sediment
Chemical element w	nich contributes to air pollutio	n. Its compounds can corrode cylinder
liners and piston rings.		
a) sulphur	b) sodium	c) vanadium
It is expressed in deg	grees centigrade; is max 30°C	; the lowest temperature at which the
fuel will flow; wax will for exchangers.	orm at lower temperatures; wa	ax may block filters or deposit on heat
a) Flash point	b) Pour point	c) Boiling point
indicate the present	ce of tiny particles of alumin	nium and silicon used in the refining
process and carried over i	nto the residual fuels.	
a) Acids	b) Cat fines	c) Elements
The Captain had to th	ne passengers that everything	was OK.
a) assure	b) reassure	c) ensure
All steering gear tests a	nd checks must be recorded	d.
a) carried on	b) carried out	c) carried in
Consider using multiple	centrifuges in parallel for p	urification.
a) provided	b) utilised	c) enhanced
There are some guideling	nes one can follow when prob	lems
a) arise	b) give rise	c) deteriorate
		e following words: commencement/ chronized/ levels/ sufficiently/
ENGINE ROOM PREPARA	ATION FOR DEPARTURE CHEC	KLIST
	d up through	
Has turning gear been		
= =	alternators running and in	?
	polant and lube-oil sump	
_	•	odes and two motors left in use?
-		
<u> </u>	k been with	•
·	ors running and set on auto st	
•	=	(steam, hydraulic or electrical)?
	books available?	
This checklist must be	filled in prior to	of stand-by.
the Barry St. La	GOOD LUCK!!	!!



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Student's name:		
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	Exam paper grade:	Instructor's signature
P		

Complete the sentence	es with the correct form of the words in parentheses. (15 p.)
Check the	(suitable) of lube oil in the sump tank.
	(corrode), because it turns into sulphuric acid.
Water has entered t	he bilge wells due to(leak) in the pipelines.
(0	condense) can occur when warm air hits a cold surface.
You have to ensure _	(satisfy) lubrication from the very beginning.
Report	(ready) of the engine to the bridge.
This part of the engir	e is not easily (access).
Start an	(add) auxiliary engine.
	(add) to improve lube oil quality and reduce the possibility of salt
water	_ (contaminate).
You have to obtain	(permit) from the bridge to test main engine ahead
and astern on air.	
You must make a	(compatible) test to see if you can mix these lube oils.
	according to the ISO 8217 (specify).
	(accumulate) of ash and other contaminants.
Bilge wells are the r	nost important (residue) collection tanks of the entire
engine room.	

State whether the following sentences are True (T) or False (F). (10 p.)

- ➤ Bilge system valves allow for water flow in only one direction.
- According to MARPOL regulations, the residue of oil in the water that is pumped overboard must not exceed 15 ppm.
- The bilge system is an optional system on ships.
- Ballast is taken on board to increase the list of the ship.
- ➤ The distribution valve chest is a kind of filter.
- Bilge systems are essential for the ship's engine room to prevent flooding.
- ➤ New bunkers should be placed into empty tanks and can be used before analysis results are received.
- > The main purpose of the ballast system is to store fresh water for the crew.
- ➤ When the "finished with engine" order is given from the bridge, change over from engine room control to bridge control.
- ➤ When the ship is about to arrive in port, you must close the dampers for exhaust gas boiler and open bypass.

	sentences with		opriate w	ord. (1	<u>5 p.)</u>				
	is 2 r							- 1 - 1-1 -	
	ghting e								
	create								
	ng the fuel oil, e								ed.
	ngine room is fr								
	should take co	ntinuou	s d		sampl	es	at the	mani	fold during
bunkering.									
	clear comm			ordinat	ion during	g er	ngine sta	art-up.	•
	$_{}$ the air \imath								
	of				kilowatts	S.			
Present p	of	propelle	er is 90 de	grees.					
					_				
	rds from the list	ı							
optional	replenish	versati		disma			uled		
inoperative			_				ringent		
excess	adhere to	miscel	laneous	insuff	icient	m	ounting	S	
enough:			tings:				not fu		
ict:			llow, stick	to:				nore than necessary:	
II:		dir	-				obey		
compulsory:			sassemble	:			improved:		
ice underwater:		vai	rious:				of ma	ny uses	5:
Fill in the gaps shifting	with a word from abrasive	om the li	<u>ist.</u> (15 p. vanadiu		grinding			inert	
list	fluids		trimme	d	mixture			centr	ifuging
particles	misunderst	anding	mud		anti-heeling		g	lubric	ants
There are m board A(n)	any reasons for system ig box is a kind ge pumps. fuel injectors, es in the fuel are gas system op rating on high su sulphur.	taking k s used t d of filte cylinder not red erationa lphur fu	oallast on o control r which p liners an uced by il? els use sp	board the revents d pisto	ors solid	of	the vessf suffer hi proper	illast consellast cons	once it is or ring loading ntering and mg. to minimise
Good comm	unication is req	uired to	ensure t	hat the	re is no			b	etween the
	d in serious acti								
The vessel ne	eeded to be ball	asted in	order to	be					
other			,		. ,				

Match the definitions that follow: Aluminium and silicon, Sediment, Water, Ash, Lub Oil Blending on Board, Density, Sulphur, Acid number, Flash point, Pour point, Viscosity, Elements: There are two extra words (10 p.)

A new concept makes it posit as cylinder lube oil		engine system oil and then utilise
It is expressed in kilograms	•	affects the fuel separation.
It consists of hydrocarbon s to indicate and assess the sta It represents the incombust Its limit has been introduce	ludge and is contained in all f bility and cleanliness of a fue ible components of fuel oil d to limit the content of catal	uels. It is a parameter that is used I ytic fines, mainly Al2O3 and SiO2, sible by centrifuging the fuel oil
Metals, like vanadium nicke and the risk of exhaust gaswa It is a limit that is set as a sa	oy volume; it may cause corro el, iron, sodium which may ind ay fouling afeguard against fire only	osion in the fuel system crease the particulate emission
It detects all acids present;	if it is elevated it may be an ir	ndicator of other harmful
Choose the correct answer.		
are usually used for ballast w a) peak In the bilge system, all suct	ater. b) floor	ks, wing tanks, fore and aft tanks c) hull ves which do not allow the liquid to
flow back to the bilge well. a) non-return When you turn the engine a) drain Governments and classif international SOLAS rules.	b) indicator	c) throttle cocks must be open. c) valve ules which have to comply with
a) societies One hour before arriving ina) sludge Depending on and trim va) ballast	b) garbage ve choose which bilge well th b) speed	c) organisations c direct overboard discharge. c) sewage e water is collected in. c) list with the water used to clean the
a) Sludge	b) tailshaft	c) Waste hat all components are thoroughly c) crankshaft nd drain them of water.
a) service	b) scavenge	c) starting

Chemical element wh liners and piston rings.	ich contributes to air pollution	. Its compounds can corrode cylinder
a) sulphur	b) sodium	c) vanadium
•	•	the lowest temperature at which the
fuel will flow; wax will for	_	a may block filters or deposit on heat
exchangers.	h) Dour noint	c) Poiling point
	b) Pour pointest part of the ship where unv	
a) sump	b) bilge	c) chain locker
, ,	lubricating oils in the fuel.	c) chain locker
	_	c) Calcium, zinc and phosphorus
	es one can follow when proble	
a) arise		c) deteriorate
- /	- 7 0	um and silicon used in the refining
process and carried over ir		uni and sincon used in the remning
a) Acids	b) Cat fines	c) Elements
	e passengers that everything v	•
a) assure	b) reassure	c) ensure
•	d checks must be recorded.	•
a) carried on		c) carried in
	centrifuges in parallel for pu	•
a) provided	b) utilised	
• •	idity of a fuel at a certain tem	•
a) Viscosity	b) Pour point	c) Density
indicates the coke-for	•	c, belisity
a) Sodium	_	c) Sediment
a) Soulaill	b) carbon restage	c) Scament
		following words: commencement/
applicable/ disengaged/ L	.og/ winches / steering/ sync	hronized/ levels/ sufficiently/
parallel (10 p.)		
ENGINE ROOM PREPARAT	TION FOR DEPARTURE CHECK	LIST
	up through	
Has turning gear been		
<u> </u>	ternators running and in	?
	plant and lube-oil sump	
-	·	
		des and two motors left in use?
=	been with	_
=	ors running and set on auto sta	
		steam, hydraulic or electrical)?
	books available?	
This checklist must be	filled in prior to	of stand-by.

