## MERCHANT MARINE ACADEMY OF MACEDONIA SCHOOL OF ENGINEERS

Acade Semes Instru	nt's full nam	013 – 2014 (akes) . Botonaki, A. I	Exam period: February Date:					
FINAL EXAM								
1. Fill in the gaps using the words below. (20 p.)								
	barge	pour point	dismoun	t carbon	inlet			
	refinery	piston	emergency	acids	bunkering			
1. The fuels which go through extensive processing are left with high content.								
				akes precautions a	gainst pollution.			
4. Two	e aikaiille lubi o-wav commi	icating ons neut	ranze me ne	 should be e	established before			
		cluding						
				l to flow at cold op	perating			
temperatures.								
6. The centrifuge should always be operated with a(n) temperature								
of 98 degrees C.								
7. When you want to check the cylinder liner, you should first the cylinder cover, the piston cleaning ring and the								
Cyllina	ior cover, the	piston eleaning	ing the the	·				
2.	Fill in the g	aps using the v	vords below.	(20 p.)				
	abrasive	maintenance	sulphur	manufacturers	leaks			
	liquid	ignition	inspect	overhauled	viscosity			
1. Cetane number indicates the quality of a fuel.								
2. The engine should beand cleaned at regular intervals.								
3 cylinder liner wear may be caused by hard particles which enter								
the cylinder via the fuel oil.								
4 is the measure of the resistance of a to								
movement.  5. Engine set the acceptable deflection limits.								
6. The checking and set the acceptable deflection limits.								
approp	priate to	th	ne individual c	omponents of the	engine.			
7. The contained in a fuel is responsible for 'low temperature'								

corrosion which attacks cylinder liners and piston rings.

8. Pipes must be pressure tested for possible \_\_\_\_\_\_.

3. Fill in th	<u>e gaps with a suit</u>	able form of t	<u>he words in parent</u>	<u>heses.</u> (15 p.)
1 This system w	vill improve the		_ ( <b>distribute</b> ) of lub	orientina oil on
the liner surface.	-		_ (aistribute) or fut	nicating on on
		ald ha maid to a	II aambuatibla mata	miala in tha
		iid de paid to a	ll combustible mate	mais in the
machinery space			,	(l )
-	on residues, asn an	d water are all	(	narm) materials
in the fuel oils.		1	. 1	-4- 11
			s by means of a rem	ote ievei
	(detect) system		) f	1
5. What are the 6	entry	(require	) for merchant marii	ne academies?
		) of the lube of	Is according to their	viscosity is an
	eter for their use.		1	- 214
		is are needed to	make sure the lube	on system
centrifuge is wor	rking properly.	(- <b>J!</b> 4)	. C 41	
8. You have to m	1ake	(aajust)	for the engine to w	ork properly.
9. They checked	the	(align) C	of the crankshaft.	( <b>1</b> ) - <b>f</b>
	proper temperatur	e to avoid the _		_ (condense) of
the steam.	4 - •	(- JJ) 4	- 1	124
11. Fuels often c	ontain	(add) t	o improve their qua	iity.
12. The water		separate) abili	ty of the fuel oil is e	nsured by
	(de			11 1 11 14
			viscosity) than mari	
cannot be presse	a through the		( <b>inject</b> ) without pro	per treatment.
1 Motob f	ho words in colum	nn A to thoir s	ynonyms in colum	n R and write
the pairs below.		ini A to then s	ynonyms m colum	II D, and write
the pairs below	(10 p.)			
$\mathbf{A}$	В			
discard	micro-seizure			
convert	serious disagreen	nent and argum	nent	
suitable	influence			
bores	provide			
circumferential	holes			
scuffing	throw away			
implement	on the sides/perio	meter		
supply	put into force			
affect	appropriate			
conflict	turn into			
		_		
		_		
		_		
		_		
		_		
		_		
		_		
		_		
		_		

5. How do the following parameters of fuels affect the combustion process							
and/or the engine parts? (15 p.)							
1. Water:							
2. Carbon residue:							
3. Sulphur:							
4. Aluminium and silicon:							

- 6. Choose one of the two topics and write a paragraph of about 100 words. (20 p.)
- a) Discuss why, when and how you take crankshaft deflections.
- b) Discuss some of the procedures which, according to MARPOL, must be followed so as to minimize the risk of spillages and leakages during bunkering.