

ΚΕΣΕΝ ΜΑΚΕΔΟΝΙΑΣ ΜΗΧΑΝΙΚΩΝ ΑΚΑΔ.. ΕΤΟΣ 2024-25 ΕΞΕΤΑΣΤΙΚΗ ΠΕΡΙΟΔΟΣ Β20	ΜΑΘΗΜΑ: ΝΑΥΤΙΚΑ ΑΓΓΛΙΚΑ		ΗΜΕΡΑ 19	ΜΗΝΑΣ 06	ΕΤΟΣ 2025
			ΘΕΩΡΗΘΗΚΕ: Ο ΔΙΕΥΘΥΝΤΗΣ ΓΟΥΡΓΟΥΛΗΣ ΔΗΜ.		
	Α΄ ΚΥΚΛΟΣ	ΕΞΕΤΑΣΤΗΣ ΚΑΘΗΓΗΤΗΣ ΔΡ. ΙΩΑΝΝΑ ΚΑΤΣΙΚΟΠΟΥΛΟΥ			
Β΄ ΜΗΧΑΝΙΚΩΝ	ΔΙΑΡΚΕΙΑ ΕΞΕΤΑΣΕΩΝ 100 min	ΜΕΓΙΣΤΗ ΒΑΘΜΟΛΟΓΙΑ 100%			

Υπενθύμηση: Οι απαντήσεις μεταφέρονται στην κόλλα αναφοράς

A. Να γράψετε το κατάλληλο παράγωγο της λέξης που δίνεται σε παρένθεση

Connecting Rod

A connecting rod is fitted in between a crosshead and crankshaft in two stroke marine diesel engines, while in between gudgeon pin and crankshaft in four stroke engines. They are constructed of forged steel with shaped structure at both ends to (1) _____ (**accommodation**) bearings. In older designs, white metal bearings were used as bearing, while modern engines have (2) _____ (**differ**) types of white metal used. When the (3) _____ (**clear**) of these bearings reaches manufacturer limit, they are replaced by a new one. A hole is grooved inside the connecting rod to allow (4) _____ (**pass**) of oil for bearings and under piston space cooling. An ideal (5) _____ (**long**) of connecting rod is designed to be as less as possible to reduce the size of the engine while dealing with increased (6) _____ (**angle**) and side thrust with short length.

Cylinder Head

A cylinder head is a structure which (7) _____ (**company**) important engine parts like inlet valve, exhaust valve and fuel injector. They are exposed to maximum temperature and pressure so provided with adequate cooling (8) _____ (**arrange**). They sit on top of the liner flange and are secured with a series of nuts and bolts with the cylinder block. As a cylinder is subjected to high (9) _____ (temperate) and pressure, it must radially transfer heat, be symmetrical, have high co-efficiency of thermal (10) _____ (**expand**) and resist bending. Above all, it must also have space to install exhaust, inlet and fuel (11) _____ (**inject**). Internal passage is bored into its design for cooling water to increase cooling efficiency. To

avoid thermal shock due to temperature gap in between the cylinder and cooling water, (12) _____ (**reason**) hot water is used for cooling cylinder head. Normally, cooling water for cylinder head is connected in a series with liner jacket water.

B. Να συμπληρώσετε τα κενά με τις λέξεις που ακολουθούν: astern; auxiliary; circulating; compressors; disengage; drained; size; switched; valve; working

Preparation for starting

Preparations for getting underway begin in the engine room an hour or more before leaving. The length of time required depends upon the (13) _____ of the engine. To ensure a quick starting the cylinders and heads of marine engines are warmed through by (14) _____ hot water. As a preliminary step the Watch Engineer should check the fuel, lubricating oil and cooling water are at (15) _____ level and the tanks properly (16) _____. S/he will examine the fuel and lube oil filters to see if they are clean and make sure that all (17) _____ valves are open.

The final steps in preparations include opening the main stop (18) _____ in starting air lines, shutting off the air drains and starting the manoeuvring air (19) _____ to charge the air reservoirs to the required pressures. If conditions external to the ship are safe and permission given by the bridge the engine should be tried –ahead or (20) _____– on starting air. Prior to that it is necessary to (21) _____ the turning gear. On engines with bridge control the control selector must be (22) _____ to the desired position. The engine is now ready for manoeuvring and when STANDBY is rung on the telegraph from the bridge, the Engineer will close the indicator cocks.

Γ. Να συμπληρώσετε τα κενά με τις λέξεις που ακολουθούν: comply; maintenance; optimum; recommendation; shipyard

The main aim of any maintenance activity on a ship is to ensure its efficient operation, compliance, reduced risks and full operational safety. Thus, ensuring maintenance activity is done in the least possible time at (23) _____ cost. All maintenance plans must (24) _____ with the ISM (International Safety Management) code. In order to carry out a successful maintenance operation, we must first identify and evaluate the problem with all possible cause-and-explanation. Then we should come up with a possible solution and implement the best possible action. Once repairs have been done, we must make sure to inspect and evaluate the effectiveness of the maintenance operation; thus, evaluating if no further action is needed. During planning we should also take into consideration the history of the

equipment/ machinery, ship's age, manufacturer (25) _____, critical equipment/ system, guidelines, inspection interval, historical trends as well as any practical or operational restrictions. Once analyzed, all maintenance work is then scheduled based on if it can be done onboard the ship either at sea or in port, or needs special attention at (26) _____ repairs. For all (27) _____ activity checklists are then used to ensure all reacquired tests, inspection and repairs are carried out properly with least difficulty or confusion.

Δ. Να αντιστοιχίσετε τους όρους της Στήλης Α με τους ορισμούς της Στήλης Β

A	B
28) congestion	(a) a situation in which there is not enough of something
29) transit	(b) to move or travel through an area
30) disruption	(c) the action of preventing something from continuing as usual or as expected
31) recent	(d) the movement of goods or people from one place to another
32) traverse	(e) causing other events or situations to happen, although not directly
33) escalating	(f) happening or starting from a short time ago
34) knock-on	(g) a situation which is too much crowded or blocked, causing difficulties
35) shortage	(h) increasing in price, amount, rate, etc.

Ε. Να συμπληρώσετε τα κενά με την κατάλληλη πρόθεση

(36) I was waiting _____ the train station.

- a. in
- b. to
- c. at

(37) I can't talk now, I'm _____ the plane.

- a. in
- b. on
- c. at

(38) The car is on fire! Don't stay inside, get ____!

- a. on
- b. off
- c. out

(39) I might be a bit late, but I'm already ____ the taxi and on my way.

- a. in
- b. on
- c. at

(40) I can explore the city much faster ____ my bike.

- a. in
- b. on
- c. at

ΣΤ) Να απαντήσετε με συντομία στις δύο ερωτήσεις που ακολουθούν:

(1) What is the function of Camshaft?

&

(2) Can you name two common engine problems in Marine Engine during starting?

~ The end ~