

Course: Maritime English
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Name:

Student number:

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Final Test

1. Match the following parameters tested in fuel with their definitions: (10 p.)

flash point/ pour point/ acid number/ water/

sulphur/ ash/ carbon residue/ cat fines/ density/ viscosity

It represents the incombustible components of fuel oil:

Its compounds can be very corrosive to cylinder liners and piston rings:

It detects all acids present:

Small particles of the catalyst (aluminium and silica oxides):

It is expressed as per cent by volume; it may cause corrosion in the fuel system:

It mainly affects the fuel separation:

It indicates the coke-forming tendencies of a fuel:

It must be known for safe transport and storage of the fuel (expressed in degrees centigrade):

The lowest temperature at which the fuel will flow (expressed in degrees centigrade):

It is a measure of fuel's resistance to flow:

2. Complete the following sentences with an appropriate word (15 p.)

-- Ensure that the correct grade of **l**_____ oil is being used. Take a **s**_____ at the purifier.

-- CCAI stands for *Calculated C*_____ *Aromaticity Index*.

-- Do not exceed a minimum **t**_____ of 20 degrees centigrade.

-- Do not exceed a **p**_____ of 4 bars.

-- **W**_____ up the engine gradually using the circulating pumps to circulate the system.

-- **F**_____ up the fuel oil service tank with purified fuel oil.

-- **P**_____ up the starting air reservoirs to their maximum pressure and **d**_____ them of water.

-- **C**_____ over to high sea suction from low sea suction.

3. Match the words from the list to their synonyms below. There are 2 extra words. (12 p.)

versatile/ insufficient/ disengage/ improve/ stringent/ miscellaneous/ excess/

obstruct/ component/ condensation/ replenish/ heeling/ fouled/ trim

let go:.....

make better:.....

not enough:.....

dirty:.....

more than necessary:.....

refill:.....

part:

strict:

block:.....

list:.....

the process of steam turning into liquid:.....

various:.....

4. Fill in the gaps with a word from the list. (14 p.)

**submerged/ perforated/ overboard/ suction/ separator/ shifting/ capacity/
drydocking/ discharge/ flooded/ priming/ sludge/ bilge/ stringent**

-- There are three systems of bilge pumps. First, a small pump that pumps the dirty water into a bilge holding tank. From the tank, the water is pumped by another small pump through an oil water _____ overboard, only when it is sufficiently clean. If not, it goes to another storage tank, the _____ tank. A second bigger pump can pump the bilge water from the engine room straight _____, but this is only allowed in emergencies. A third possibility is to use the direct _____ of the main cooling water pumps, which has huge _____ for big leaks in emergencies.

-- During a ballast operation at night, while at a shipyard in order to trim the vessel for _____, it was discovered that the engine room was _____.

-- Damage to _____ electrical equipment occurred.

-- We will _____ double bottom tank.

-- A strum box is a kind of filter on the suction line head, which is a _____ basket, easily accessible and detachable, necessary to prevent ashes and other particles from entering the pumps and choking them.

-- A bilge pump is a self-_____ pump, because it doesn't need another pump to supply it with water for starting.

-- The cargo holds are provided with four _____ wells.

-- The ballast system is used to pump seawater in or out of the ballast tanks. The rules for the ballast system are less _____ than the rules for bilge systems. There are many reasons for taking ballast on board or _____ ballast once it is on board.

5. Complete the sentences with the correct form of the words in parentheses. (18 p.)

-- Report _____ (**ready**) of the engine to the bridge.

-- The water is not _____ (**sufficient**) clean.

-- The _____ (**corrode**) effect of _____ (**sulphur**) acid is counteracted by adequate _____ (**lubricate**).

-- _____ (**engage**) the turning gear and secure it.

-- Small amounts of water can _____ (**accumulation**) in the ship because of condensation.

-- CCAI 860 is _____ (**accept**) for slow-speed engines.

-- We must do a _____ (**compatible**) test.

-- Ballast water helps the ship's _____ (**stable**).

-- The versatile _____ (**apply**) of marine water ejectors makes them an important part of a ship's engine _____ (**equip**).

-- _____ (**catalyst**) fines are highly _____ (**abrade**).

-- Check the _____ (**suitable**) of lub-oil in the sump tank.

-- Water in the lube oil system can cause _____ (**corrode**).

-- High _____ (**dense**) fuels have a high carbon residue _____ (**contain**).

6. Complete the sentences with an appropriate preposition. You can choose from the following: (14 p.)

below/ above/ to/ by/ before/ after/ from

- Keep the fuel temperature _____ the minimum storage temperature, and the temperature after the final heater 5-10 C _____ the recommended fuel injection temperature.
- The temperature is too high, 20 degrees _____ normal.
- The preparation for departure checklist must be filled up _____ commencement of stand - _____
- Have all the preparations been done prior _____ arrival in port?
- Temperatures _____ pour point can result in wax formation.
- Water in the fuel should be removed _____ use.
- Solid ash should be removed to the widest possible extent by centrifuging, and cleaning can be improved by installing a fine filter _____ the centrifuge.
- The level of at fines should not exceed 15 ppm _____ the centrifuge.
- Homogenisers installed _____ the fuel centrifuge can reduce the efficiency of the centrifuge.
- There was a blackout at 1300 due _____ the fact that the auxiliary generators stopped.
- We transferred ballast _____ tank number 2 _____ tank number 4.

7. Underline the correct answer. (17 p.)

- Present **revolution/ pitch/ output** of the main engine is 1000 kilowatts.
- Rules about the bilge line arrangement are made up by governments and Classification Societies and have to **comply with/ adhere/ deal with** international SOLAS rules.
- Water ejectors are frequently used for marine applications such as ballast **suction/ sounding/ stripping** ejector, chain locker ejector, sewage water vacuum suction and other applications. Ballast eductors can be efficiently **occurred/ required/ utilized** to fill/ empty ballast tanks quickly.
- Cat fines are particularly responsible for **abrasive/ contamination/ recommended** wear.
- By using a **cutting/ grinding/ prescribed** tool you can remove vanadium deposits from the turbocharger nozzle ring.
- Centrifuging is still recommended for the **distillate/ crude/ residual** fuels, MDO/MGO, as the fuel may be **encountered/ choked/ contaminated** in the storage tanks.
- The traditional cylinder oil can be replaced by **crude oil/ circulating oil/ blended lube oil**.
- **Prime/ pump/ place** the fuel oil system using a booster pump.
- When you put on the starting air in the engine, you must close the **drain/ vent/ plug** cocks of the system.
- Turning the engine with the turning **wheel/ gear/ steer** gives you the opportunity to make sure of the unobstructed move of the crankshaft.
- **Ash / aluminium and silicon** are small particles of the catalyst used in the refining process.
- The engine must be warmed up **quickly / gradually** by means of the **circulating / fuel** pumps.
- When you turn the engine with the **steering gear / turning gear**, the indicator cocks must be **open / closed**.