

**MERCHANT MARINE ACADEMY OF MACEDONIA  
SCHOOL OF ENGINEERS**

**Course: Maritime English**  
**Academic year: 2014 – 2015**  
**Semester: E**  
**Instructor: A. Birbili**  
**Student's full name:**  
**A.Γ.M.:**

**Exam period: February**  
**Date:**

**FINAL EXAM**

**1. Fill in the gaps using the words below. There are two extra words. (15 p.)**

*equipment portions intact cooling fan drain purification loss thermally  
combustion draft centrifuge solution dilution temperature radiant coefficient*

- \_\_\_\_\_ air refers to the flow of air that removes \_\_\_\_\_ heat from the main engine and other engine room components.
- Since natural \_\_\_\_\_ ventilation is too bulky for practical consideration, adequate quantities of fresh air are best supplied by \_\_\_\_\_ - assisted ventilation systems.
- Because the heat transfer \_\_\_\_\_ from water is much greater than from air, insulation must limit heat \_\_\_\_\_ to the water for the \_\_\_\_\_ of the hull that are below water level.
- Structural insulation is required to \_\_\_\_\_ separate the compartments within a ship, since one cargo space or mechanical \_\_\_\_\_ space may need to be kept at a different \_\_\_\_\_ than an adjacent space.
- You must thoroughly \_\_\_\_\_ the fuel before using it and you must keep the filters clean and \_\_\_\_\_.
- In freezing weather, you must carefully \_\_\_\_\_ all passages and pockets in the engine that contain fresh water and are subject to freezing, unless an antifreeze \_\_\_\_\_ has been added to the water.
- \_\_\_\_\_ and filtration of the lub oil is carried out during its use.

**2. Fill in the gaps using the words below. There are two extra words. (15 p.)**

*hydraulic propeller gases corrective explosions bearings pressure sparks  
sweat controllable unusual leaky blades loaded scavenge fixed vibration*

- The crankcase relief doors are spring- \_\_\_\_\_ valves which lift up in case there is any rise of \_\_\_\_\_ inside the crankcase.
- Hot spots can be created in the crankcase as a result of \_\_\_\_\_ entering the crankcase due to \_\_\_\_\_ piston rings, or as a result of fires in the adjacent \_\_\_\_\_ trunks.
- Concerning the maintenance of marine diesel engines, any \_\_\_\_\_ operating conditions, increase in noise, \_\_\_\_\_, high exhaust temperature, and so on, must be investigated promptly and \_\_\_\_\_ actions must be taken.
- \_\_\_\_\_ are used to support the shafting in a straight line between the main engine and the \_\_\_\_\_.
- In \_\_\_\_\_-pitch propellers, the pitch can be adjusted by a \_\_\_\_\_ mechanism which allows the \_\_\_\_\_ to turn on their own axis.

-- Bulk cargoes are ventilated to prevent the formation of cargo \_\_\_\_\_, to reduce the harmful heating of the cargo and to remove the hazardous \_\_\_\_\_ from the cargo spaces.

**3. Fill in the gaps with a word of your own choice. (20 p.)**

-- Governors are also fitted in \_\_\_\_\_ diesel engines on the ship, which are used for \_\_\_\_\_ generation.

-- Before the fuel is injected into the \_\_\_\_\_, it should be absolutely free of \_\_\_\_\_ and foreign matter.

-- It is important to carry out routine \_\_\_\_\_ of the OMD to prevent \_\_\_\_\_ alarms.

-- \_\_\_\_\_ air describes the air the engine requires to burn fuel.

-- You must keep the engines clean at all times and take steps to prevent \_\_\_\_\_ or fuel from accumulating in the bilges or in other areas to prevent fire hazards.

-- Rapid cooling may \_\_\_\_\_ a cylinder liner and head or may cause a \_\_\_\_\_ to seize within a cylinder.

**4. Complete the sentences with the appropriate form of the words in parentheses. (15 p.)**

-- When the temperature of steam falls below \_\_\_\_\_ (**permit**) limits, \_\_\_\_\_ (**condense**) takes place.

-- Talking during exams is totally \_\_\_\_\_ (**accept**) behaviour.

-- On \_\_\_\_\_ (**complete**) of the repair works, write a full \_\_\_\_\_ (**describe**) of the work done.

-- Hold \_\_\_\_\_ (**ventilate**) are exposed to sea water and spray on deck and require proper \_\_\_\_\_ (**attend**).

-- \_\_\_\_\_ (**prevent**) measures should always be taken during bunkering.

-- International regulations try to reduce the \_\_\_\_\_ (**emit**) of ships' fuels.

-- The workers used a lot of \_\_\_\_\_ (**explode**) to demolish the old building.

-- Before a \_\_\_\_\_ (**decide**) is made to ventilate a space, it is necessary to consider the \_\_\_\_\_ (**require**) of the cargo, the temperature and \_\_\_\_\_ (**humid**) within the holds and outside and the \_\_\_\_\_ (**present**) or not of sea spray.

-- The \_\_\_\_\_ (**sensitive**) of the oil mist detector should be checked on a regular basis.

**5. Write the opposites of the following words. (10 p.)**

-- manned

-- compose

-- balance

-- significant

-- legal

-- possible

-- responsible

-- equality

-- honest

-- moral

-- experienced

-- assemble

-- careful

-- appropriate

-- harmful

**6. Match the words to their definitions. There is one extra word. (10 p.)**

*reliable bulky disperse adverse dedicated durable condense evolving*  
*effective range accumulate rupture impact ductwork inverse stationary*

having a powerful influence on sth/smb \_\_\_\_\_  
 build up \_\_\_\_\_  
 vary between limits \_\_\_\_\_  
 opposite esp. in order or position \_\_\_\_\_  
 having great size or mass \_\_\_\_\_  
 gradually developing \_\_\_\_\_  
 able to last, long-lasting \_\_\_\_\_  
 cause to break or burst \_\_\_\_\_  
 scatter or spread in different directions \_\_\_\_\_  
 dependable \_\_\_\_\_  
 standing still; not moving \_\_\_\_\_  
 intended to be used for one particular purpose \_\_\_\_\_  
 (of a gas) become liquid, esp. by becoming cooler \_\_\_\_\_  
 the total of all pipes or tubes \_\_\_\_\_  
 producing the desired result \_\_\_\_\_

**7. Read the following article and answer the questions that follow. (15 p.)**

### **Carnival Splendor returns**

By Michelle Baran / February 20, 2011

LONG BEACH, California.— After three-and-a-half months out of service, the damage to the Carnival Splendor has been repaired, and measures have been taken to hopefully prevent fires from incapacitating the ship again, said Carnival Cruise Lines CEO Gerry Cahill.

The Splendor welcomed media and travel agents on Saturday, on the eve of her return to service.

An engine room fire on November 8, 2010 knocked out power on the ship and forced her into drydock.

The fire broke out while the ship was off the coast of Mexico. Three days later, tugboats towed the ship into San Diego.

Cahill said the fire cost Carnival about \$65 million, including repairs and lost revenue.

The fire was caused by a catastrophic failure in diesel generator No. 5. According to Cahill, the power went out because the heat from the fire melted the insulation around electrical cables and ruined the cables. He said there was heat damage in the switchboard room, as well.

While the fire was in the aft engine room, the Splendor's second engine room should have kicked in.\*

"Having two engine rooms like we do, is pretty much the norm in the cruise industry," explained Cahill. "What we have decided to do, and this will go across the Carnival group I'm sure, is we've determined there are certain things that we can do to increase the effectiveness of that redundancy."

Cahill said these measures include additional suppression systems to put out fires more quickly and additional insulation over the cabling and under the switchboard areas.

Cahill said the Splendor re-entered service later than initially planned because damage to the engine room was more extensive than originally estimated and because of the time it took to get spare parts manufactured.

A replacement diesel generator weighing 218,000 pounds was airlifted from Europe. Two 106,000-pound alternators along with 110 miles of electrical cabling were replaced.

All systems have been inspected by Lloyd's Register Group and by the U.S. Coast Guard.

Forensic fire investigators are examining the failed generator, which is currently in San Francisco. An investigation into the cause of the fire is ongoing.

Carnival has created a task force consisting of 18 employees who are working to improve fire prevention, detection, suppression and response capabilities across the Carnival fleet.

Cahill noted that the Splendor's February 20 sailing was full. The 3,006-passenger ship resumes sailing seven-night Mexican Riviera cruises out of Long Beach.

\*kick in = become operative

(Retrieved: 7 February, 2015 from [www.travelweekly.com/Cruise-Travel/Carnival-Splendor-returns](http://www.travelweekly.com/Cruise-Travel/Carnival-Splendor-returns))

### **True or False?**

- Carnival Splendor arrived in San Diego using her own propulsion system three days after the fire.
- The fire was caused by a minor failure in diesel generator No. 5.
- The ship's second engine room started functioning a few minutes after the fire had broken out.
- The switchboard room was also damaged by the fire.
- The investigation into the cause of the fire has been completed.
- The damaged diesel generator is being examined by experts in Mexico.
- A replacement diesel generator was carried by an aircraft from Europe.
- Cruise ships are usually fitted with two engine rooms.

### **Answer the questions.**

1. How long did the Carnival Splendor have to stay in drydock for repairs?
2. As per Gerry Cahill, why did the power on board Carnival Splendor go out?
3. What were the reasons for the ship's delayed return to service?
4. What equipment was replaced during drydocking?
5. Why has Carnival created a task force?

**GOOD LUCK!!!**