

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

**Course: Maritime English**  
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**FINAL EXAM**

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

*accumulation    pneumatic    fresh    equipment    scavenge    quantities    exhaust    sparks*

*drain    insulation    fan    intake    dilution    leaky    compartments    solution    temperature*

- The \_\_\_\_\_ governor is responsive to the air flow in the \_\_\_\_\_ manifold of the engine.
- \_\_\_\_\_ of dense mist in the crankcase of an engine can lead to fire or explosion with devastating consequences.
- Adequate \_\_\_\_\_ of fresh air are best supplied by \_\_\_\_\_ - assisted ventilation systems.
- 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.
- Structural \_\_\_\_\_ is required to thermally separate the \_\_\_\_\_ within a ship, since one cargo space or mechanical \_\_\_\_\_ space may need to be kept at a different \_\_\_\_\_ than an adjacent space.
- In freezing weather, you must carefully \_\_\_\_\_ all passages and pockets in the engine that contain \_\_\_\_\_ water and are subject to freezing, unless an antifreeze \_\_\_\_\_ has been added to the water.

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

*loss    bulk    controllable    radiant    portions    combustion    flyweights    heating*

*sweat    hydraulic    loops    sampling    spring    blades    coefficient    cooling    fixed*

- 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.
- The \_\_\_\_\_ fitted on the governor spindle acts to return the \_\_\_\_\_ to their original position.
- \_\_\_\_\_ air refers to the flow of air that removes \_\_\_\_\_ heat from the main engine and other engine room components.
- The \_\_\_\_\_ tubes that connect the cylinders to the OMD should not have any \_\_\_\_\_ and shouldn't be more than 12.5 metres in length.
- In \_\_\_\_\_-pitch propellers, the pitch can be adjusted by a \_\_\_\_\_ mechanism which allows the \_\_\_\_\_ to turn on their own axis.
- \_\_\_\_\_ cargoes are ventilated to prevent the formation of cargo \_\_\_\_\_, and/or to reduce the harmful \_\_\_\_\_ of the cargo.

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

- In marine diesel engines the speed control is achieved with the help of a \_\_\_\_\_.
- When fuel reaches the \_\_\_\_\_ system, it should be absolutely free of water and foreign matter.
- It is important to carry out routine \_\_\_\_\_ of the OMD to prevent false alarms.
- When engines are stopped, you must \_\_\_\_\_ all starting-air lines.
- Rapid cooling may \_\_\_\_\_ a cylinder liner and head or may cause a \_\_\_\_\_ to seize within a cylinder.
- Bearings are used to support the \_\_\_\_\_ in a straight line between the main engine and the \_\_\_\_\_.
- The presence of oil mist in the crankcase reduces the \_\_\_\_\_ point of the oil, allowing it to catch \_\_\_\_\_ in presence of a hot spot.

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

- The main \_\_\_\_\_ (**reduce**) gear connects the engine to the shaft.
- The opening pressure and size of crankcase relief doors are specified by different \_\_\_\_\_ (**classify**) societies, depending on the volume of the crankcase.
- When the temperature of steam falls below \_\_\_\_\_ (**permit**) limits, \_\_\_\_\_ (**condense**) takes place.
- 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 3<sup>rd</sup> engineer with the \_\_\_\_\_ (**assist**) of a crew member of the engine room proceeded to the \_\_\_\_\_ (**adjust**) of the governor.
- Alcohol \_\_\_\_\_ (**consume**) is forbidden in the engine room.
- 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.

**5. Write the opposites of the following words. Then use five (05) of them to fill in the gaps. (10 p.)**

- |                |                |
|----------------|----------------|
| -- efficient   | -- appropriate |
| -- compose     | -- obey        |
| -- legal       | -- possible    |
| -- assemble    | -- equality    |
| -- experienced | -- moral       |

- If you \_\_\_\_\_ the orders, you'll be severely punished.
- The problem of \_\_\_\_\_ among crew members will be discussed in the weekly meeting next Monday.
- It's physically \_\_\_\_\_ for a woman to lift heavy objects.
- By electrolysis, you can \_\_\_\_\_ water into hydrogen and oxygen.
- It is \_\_\_\_\_ to dump oil and other harmful substances into the sea.

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

*reliable*    *disperse*    *adverse*    *couple to*    *durable*    *condense*

*reinforce*    *range*    *ductwork*    *inverse*    *exposed*

left without protection \_\_\_\_\_

vary between limits \_\_\_\_\_

opposite esp. in order or position \_\_\_\_\_

able to last, long-lasting \_\_\_\_\_

scatter or spread in different directions \_\_\_\_\_

dependable \_\_\_\_\_

make stronger or harder \_\_\_\_\_

(of a gas) become liquid, esp. by becoming cooler \_\_\_\_\_

the total of all pipes or tubes \_\_\_\_\_

join together \_\_\_\_\_

**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!!!***