

**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 3rd 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)

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!!!