
Q170 - Deck General/Safety

1. Which is usually the most gentle way of riding out a severe storm on a larger vessel?

- Rig a sea anchor
- Hove to
- Head into the seas at slow speeds
- **Running before the seas**

Note:
Running before the seas minimizes stress on a large vessel during a severe storm by reducing pitching, slamming, and maintaining steerage, making it the most gentle approach compared to other options like heaving to, heading into the seas, or using a sea anchor.

---

2. How should gasoline tanks be filled?

- To the top to expel all vapors from the tanks
- Fill with only sufficient fuel for the planned trip so excess gasoline is not carried
- **Fill to near the top with some space allowed for gasoline expansion**
- To the top so the operator is certain how much fuel he has aboard

Note:
Gasoline tanks should be filled nearly full, leaving space for expansion to prevent spills and vapor hazards. Filling to the top eliminates this space, creating a fire and pollution risk. Carrying only the necessary fuel is unsafe without a reserve, and knowing the exact fuel level does not justify overfilling.

---

3. How does good housekeeping prevent fires on a vessel?

- Allowing better access in an emergency
- Improving personnel qualifications
- **Eliminating potential fuel sources**
- Eliminating trip hazards

Note:
Good housekeeping prevents fires by eliminating potential fuel sources, directly addressing the 'fuel' component of the fire triangle. Fire prevention focuses on controlling fuel and ignition sources, and good housekeeping practices like cleaning spills and properly storing combustibles reduce the risk of fire ignition or spread. Options related to emergency access, personnel qualifications, and trip hazards address safety and response, not primary fire prevention.

---

4. Which of the following conditions represents the appropriate time for setting off distress flares and rockets?

- Immediately upon abandoning the vessel.
- At half-hour intervals.
- At one-hour intervals.
- **Only when there is a chance of them being seen by rescue vessels.**

Note:
Distress flares and rockets should be deployed only when there is a reasonable chance of observation by potential rescuers to conserve limited resources and maximize effectiveness.

---

5. Which visual distress signal is acceptable for daylight use only?

- Hand-held red flare
- Red aerial pyrotechnic flare
- Self-contained rocket-propelled parachute red flare
- **Hand-held orange smoke distress flare**

Note:
Hand-held orange smoke distress flares are approved for daylight use only, unlike red flares which are designed for nighttime or dual-use applications. Coast Guard regulations categorize visual distress signals as day, night, or dual-use, with orange smoke specifically designated for daytime visibility due to its effectiveness in sunlight and ineffectiveness at night.

---

6. A magnesium fire is classified as class _____.

- Class A
- Class B
- Class C
- **Class D**

Note:
Magnesium fires are classified as Class D because magnesium is a combustible metal. Class D fires specifically involve combustible metals like magnesium, while Class A covers ordinary combustibles, Class B covers flammable liquids and gases, and Class C covers energized electrical equipment.

---

7. Which of the conditions listed is necessary for a substance to burn?

- The temperature of the substance must be equal to or above its fire point
- The mixture of vapors with air must be between the LEL and the UEL
- The air must contain oxygen in sufficient quantity
- **All of the above**

Note:
Combustion requires sufficient heat to reach the fire point, a vapor/air mixture within the explosive limits (LEL and UEL), and adequate oxygen. Therefore, all listed conditions are necessary for a substance to burn.

---

8. All of the following are part of the fire triangle EXCEPT _____.

- fuel
- oxygen
- heat
- **electricity**

Note:
Electricity is not a component of the fire triangle, which consists of fuel, heat, and oxygen. Electricity can be a source of heat but is not a fundamental element required for combustion.

---

9. Which extinguishing agent is the best for use on electrical fires?

- Dry chemical
- **CO2**
- Foam
- Water fog

Note:
CO2 is the best extinguishing agent for electrical fires because it is non-conductive and leaves no residue, ensuring safety for energized equipment. Electrical fires require non-conductive agents to prevent shock hazards; CO2 effectively displaces oxygen and avoids damage from residue, unlike dry chemical, foam, or water fog which are either conductive or leave damaging residues.

---

10. When must a dry chemical fire extinguisher be recharged?

- **After each use**
- When the air temperature exceeds 90°F
- Every 6 months
- Every 12 months

Note:
Dry chemical fire extinguishers must be recharged after each use to maintain their rated capacity and ensure readiness for immediate use, as required by USCG regulations and manufacturer instructions. Discharge, even partial, compromises internal pressure and chemical quantity, rendering the extinguisher not fully serviceable. Temperature or calendar intervals are not primary recharge triggers; recharge is dictated by use or condition.
