

Demo PDF file. This file includes questions: 10 from 150. Full version of file looks the same as demo, but full version includes all questions. You may download file with all questions by link on bottom of this page

Q435 - OIM: Bottom Bearing Units On Location

1. Why is electrical power preferred over mechanical power for driving heavy machinery on drilling rigs?

- Less maintenance
- Lighter
- **More flexible**
- More fuel efficient

Note:

Electrical power is preferred on drilling rigs due to its greater flexibility in equipment placement and control compared to mechanical power transmission.

2. Where is thicker plating usually found in the construction of integral tanks on a MODU?

- On the outside of the tank
- **At the bottom of the tank**
- At the top of the tank
- At the center of the tank

Note:

Thicker plating is located at the bottom of integral tanks on MODUs because hydrostatic pressure is greatest at that point.

3. A construction portfolio may be included as part of the MODU _____.

- general plans
- **operating manual**
- builders documentation
- Coast Guard file

Note:

The MODU operating manual serves as the primary onboard document and may incorporate the construction portfolio to provide readily available structural and design information to the crew.

4. The helicopter deck on an offshore drilling unit is required to be fitted with perimeter lights in alternating colors of _____.

- yellow and red
- yellow and white
- red and white
- **yellow and blue**

Note:

U.S. regulations mandate alternating yellow and blue perimeter lights on offshore drilling unit helicopter decks to provide clear visual guidance for pilots. This requirement is specified in 46 CFR Part 108 and distinguishes the landing area, particularly in low visibility conditions; other color combinations are not compliant.

5. What class of bulkhead is required around the galley on a MODU?

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

Note:

Class A bulkheads are required around galleys on MODUs due to the galley's designation as a high fire-risk service space. Class A bulkheads provide the necessary fire resistance to contain a fire and protect adjacent areas, exceeding the standards of Class B, C, and D divisions.

6. If you observe any situation which presents a safety or pollution hazard during fuel transfer operations on a MODU, what action should you take FIRST?

- Sound the fire alarm.
- **Shut down the transfer operation.**
- Notify the ballast control operator.
- Wait for the person in charge to act.

Note:

Immediately stop the fuel transfer operation if a safety or pollution hazard is observed. This action directly addresses the source of the risk, minimizing potential spills and fire hazards, and aligns with regulatory requirements.

7. When fire pumps are used for other than firefighting services, each pipe connecting the other service (except for branch lines used for deck washing) must have which item to be in compliance with regulations?

- **A shut off valve at a manifold near the pump**
- A check valve installed in the line
- A regulator in the line set at 125 psi
- A quick disconnect union within ten feet of the pump

Note:

Regulations require a shutoff valve at a manifold near the pump to allow for the immediate isolation of non-firefighting services and ensure full pump capacity is available for firefighting; deck washing branch lines are typically exempt.

8. Repair of structures on a MODU in the vicinity of liquid mud handling areas presents what possible hazard?

- Liquid muds may flood adjoining spaces.
- Toxic gasses may be present.
- **Flammable gasses may be present.**
- An oxygen-deficient atmosphere may be present.

Note:

Liquid mud systems can release flammable gases that, if ignited by repair work, pose a fire or explosion hazard. Formation hydrocarbons entering the mud stream create gas-cut mud, which can accumulate in mud tanks and pits, especially with inadequate ventilation. Repair activities often involve ignition sources, making flammable gas presence the primary concern in these areas.

9. For H₂S detection, sensitized tapes indicate H₂S presence by means of discoloration of an exposed spot on the tape. The shade of the color on the spot depends upon the concentration of H₂S and which of the following factors?

- **duration of the exposure**
- air pressure at the time of the exposure
- air temperature at the time of the exposure
- humidity at the time of exposure

Note:

The discoloration of sensitized tapes, indicating H₂S presence, is determined by the duration of exposure because the chemical reaction is cumulative over time. This reaction produces a darker spot proportional to the dose of H₂S, which is the product of concentration and exposure time. Air pressure, temperature, and humidity are not primary factors influencing the discoloration.

10. The airborne concentrations of substances (such as hydrogen sulfide) under which nearly all workers may be repeatedly exposed without adverse effects are called _____.

- exposure limits
- concentration limits
- **threshold limit values**
- substance limit values

Note:

Threshold limit values (TLVs) are defined as airborne concentrations to which nearly all workers can be repeatedly exposed without adverse health effects. TLVs are guidelines established by ACGIH and represent standardized occupational exposure limits, unlike the generic terms 'exposure limits' or 'concentration limits'.
