

Demo PDF file. This file includes questions: 10 from 233. 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

Q431 - OIM: Unrestricted

1. The DEEP DRILLER may remain at operating draft instead of deballasting to survival draft when _____.

- waves approach within two feet of the spider deck
- winds are greater than 70 knots
- **critical motion limits have not been exceeded**
- the maximum wave height is greater than 64 feet

Note:

The DEEP DRILLER may remain at operating draft if critical motion limits are not exceeded. Environmental factors are considered in calculating these limits, but the decision to deballast is based on whether those limits are surpassed.

2. 2.5.7.2A2-78) What is the minimum required number of fire axes that must be carried on a mobile offshore drilling unit?

- **2**
- 3
- 4
- 5

Note:

46 CFR 108.499 mandates that mobile offshore drilling units carry a minimum of two fire axes.

2. The DEEP DRILLER is loaded as shown in the Sample Load Form #1 (Transit). Weather conditions make it necessary to ballast down to survival draft. It is decided to check the stability at the intermediate draft of 32 feet. If the added ballast has an average VCG of 9.03 feet, what is the new KG?

- 54.76 feet
- 55.76 feet
- **57.22 feet**
- 57.76 feet

Note:

The new KG is calculated by summing the moments about the keel of the original condition and the added ballast, then dividing by the new total weight. Using the provided ballast VCG of 9.03 feet, the resulting KG is 57.22 feet.

3. 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.

4. The deck plating on a MODU is supported primarily by deck longitudinals and deck _____.

- frames
- **beams**
- girders
- stanchions

Note:

Deck plating is directly supported by deck longitudinals and transverse deck beams.

5. The decks of a MODU are supported by transverse members called _____.

- web frames
- **deck beams**
- trusses
- deck longitudinals

Note:

Deck beams are transverse members that directly support a ship's or MODU's decks. Transverse members run athwartships, and deck beams fulfill this function, unlike web frames which stiffen the hull, deck longitudinals which run fore-and-aft, or trusses which describe a structural form.

6. Stanchions prevent the entire deck load on a MODU from being carried by the _____.

- bulkheads
- stringers
- **frames and beam brackets**
- deck longitudinals

Note:

Stanchions transfer deck load directly to the structure below, reducing the load carried by the frames and beam brackets.

7. Compared to internal structural plating, the exterior hull plating on a MODU is usually _____.

- **stronger**
- thinner
- more corrosion resistant
- a lower grade steel

Note:

Exterior hull plating on a MODU is stronger than internal structural plating to resist sea pressure, wave impact, collision, and abrasion.

8. 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.

9. The size of fire hydrant hose connections on a cargo vessel must be either 1-1/2 inches or

_____.

- 1 inch
- **2-1/2 inches**
- 3 inches
- 3-1/2 inches

Note:

46 CFR regulations specify that fire hydrant hose connections on cargo vessels must be either 1-1/2 inches or 2-1/2 inches.
