

Demo PDF file. This file includes questions: 10 from 70. 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

Q393 - Navigation Problems: Chart Plot

1. The following questions (1-10) are based on the Army Corps of Engineers Mississippi River Maps (Cairo to the Gulf) and the Light List. AHP = Above Head of Passes LMR = Lower Mississippi River UMR = Upper Mississippi River OHR = Ohio River ACOE = Army Corps of Engineers At 2345, on 25 December, you depart Memphis Harbor, McKellar Lake (mile 726.0 AHP - LMR) enroute to the Petroleum Fuel & Terminal Co. (144.6 AHP) in Angelina, LA, with a tow of eight full gasoline barges. If your vessel is making turns for 7.5 mph with an estimated average current of 1.5 mph, what is your ETA at the dock in Angelina, LA?

- 0516, 28 Dec
- **1621, 28 Dec**
- 0516, 29 Dec
- 1621, 29 Dec

Note:

The ETA at the dock in Angelina, LA, is 1621 on 28 December. The river distance is 581.4 miles, and the speed over ground is 9.0 mph (7.5 mph vessel speed plus 1.5 mph current), resulting in a travel time of 64 hours and 36 minutes. Adding this travel time to the departure time of 2345 on 25 December yields the correct ETA.

2. The highest point on your towboat is 67 feet above the water, and the Helena Gage reads +22.3 feet. What is the vertical clearance when you pass under the A-span of the Helena Highway Bridge?

- 74.7 feet
- 49.8 feet
- 52.4 feet
- **30.1 feet**

Note:

The vertical clearance is calculated by subtracting the current river stage reading from the charted bridge clearance, then subtracting the towboat's air draft. Applying this process with a charted clearance of 119.4 feet, a current stage reading of +22.3 feet, and a towboat height of 67 feet results in a vertical clearance of 30.1 feet.

3. Which of the following statements are TRUE?

- All aids to navigation with lights have lateral significance.
- **On the Western Rivers, crossing marks may exhibit white lights.**
- Oil well structures are listed in the Light List.
- All of the above.

Note:

On the Western Rivers, crossing marks may exhibit white lights.

4. At 0509, on 26 December, you pass under the Helena Highway Bridge (mile 661.7 AHP). What has been the average speed of the current since departing Memphis Harbor, McKellar Lake, if you have been making turns for 7.5 mph?

- 1.8 mph
- 2.1 mph
- **4.4 mph**
- 5.6 mph

Note:

The average current speed is calculated by subtracting the vessel's speed through the water (7.5 mph) from its speed over ground (11.9 mph), resulting in 4.4 mph.

5. What is the distance in river miles, from the new mouth of the White River to the Petroleum Fuel & Terminal Co. (144.6 AHP)?

- **454 miles**
- 384 miles
- 437 miles
- 370 miles

Note:

The distance between the new mouth of the White River and the Petroleum Fuel & Terminal Co. is calculated by subtracting the downstream river mile (144.6 AHP) from the upstream river mile (599 AHP), resulting in 454 river miles.

6. What is the white/black within a circle symbol found at mile 592.1 AHP?

- Daymark
- Terrence Landing Light
- **River Gage**
- Information Board

Note:

The white/black circle symbol on inland river charts indicates the location of a river gage, which measures water level. River gages provide critical data for safe navigation, including under-keel and bridge clearance. Daymarks, lights, and information boards are represented by different chart symbols.

7. What facility is not found near La Grange Towhead Light (538.2 AHP) on Greenville Harbour?

- American Commercial Barge Lines
- Ergon, Inc.
- Mississippi Limestone
- **Greenville Casino Wharf**

Note:

Greenville Casino Wharf is the correct answer; it is the only facility not listed near La Grange Towhead Light (538.2 AHP) on Greenville Harbour according to the reference chart. This is a chart-based question, and the answer must be found within the provided reference material, not from external knowledge.

8. As you pass under the Vicksburg Bridges, you estimate the current as 3.0 mph. What is the speed over the ground, if your vessel is making turns for 10.5 mph?

- **13.5 mph**
- 7.5 mph
- 10.5 mph
- 16.5 mph

Note:

Speed over ground is calculated by adding the vessel's speed through the water and the aiding current. Therefore, the speed over the ground is 10.5 mph + 3.0 mph = 13.5 mph.

9. As you approach Buckridge Light (mile 412.5 AHP), which type of daymark would you see on the light structure?

- Red diamond
- **Green square**
- Red triangle
- Green diamond

Note:

Buckridge Light, as a port-side aid for upstream traffic, displays a green square daymark according to the U.S. lateral system.

10. What is NOT true about the yellow square at mile 227.3 AHP?

- Square in shape
- Part of Intracoastal Waterway System
- Yellow in color
- **Lighted**

Note:

The charted yellow square at mile 227.3 AHP is unlighted; therefore, it is not lighted.
