

**Demo PDF file. This file includes questions: 10 from 293. 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**

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## **Q204 - Navigation General: Oceans**

**1. At 0000 you fix your position and change course to 090°T. At 0030 you again fix your position, and it is 0.5 mile east of your DR. Which statement is TRUE?**

- The drift is 0.5 knot.
- **The current is easterly.**
- You should alter course to the right to regain the track line.
- The current is perpendicular to your track line.

Note:

*Being east of your DR after steering 090T indicates an easterly current.*

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**2. At 0000 you fix your position and plot a new DR track line. At 0200 you again fix your position, and it is 0.5 mile east of your DR. Which statement is TRUE?**

- The current is westerly at 0.5 knot.
- The current cannot be determined.
- **The drift is 0.25 knot.**
- You must increase speed to compensate for the current.

Note:

*The drift is calculated by dividing the distance between the DR and fix by the elapsed time: 0.5 nautical miles in 2 hours equals 0.25 knots.*

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**3. On 25 December you observe the Sun's lower limb. The sextant altitude (hs) is 4°06.9'. The height of eye is 47-feet and the index error is 1.6' on the arc. The temperature is 19°F and the barometer reads 1030.8 millibars. What is the observed altitude (Ho)?**

- 3°57.4'
- **4°01.9'**
- 4°02.5'
- 4°03.4'

Note:

*The observed altitude is 401.9' after correcting for index error, dip, and the Sun's lower limb main correction, which accounts for semi-diameter, refraction, and parallax.*

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**4. On 5 July, at 1200 zone time, you cross the 180th meridian steaming westward. What is your local time?**

- It is 1200, 4 July.
- It is 1200, 5 July.
- **It is 1200, 6 July.**
- It is 2400, 6 July.

Note:

*Crossing the 180th meridian westward advances the calendar date by one day while maintaining the same clock time; therefore, the local time is 1200, 6 July.*

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## 5. How can the accuracy of an azimuth circle be checked?

- Ensuring that the alignment marks on the inner face of the circle are in line with those on the repeater on relative bearings of 000° and 090°
- Aligning the relative bearing markings so that 000° is on the lubber's line and the line of sight passes over the center of the compass
- Sighting a terrestrial range in line and comparing the observed bearing against the charted bearing
- **Comparing observed azimuths at different altitudes with computed values at the times of observation to see if the difference is constant**

Note:

*The accuracy of an azimuth circle is verified by comparing observed azimuths of celestial bodies at different altitudes with computed true azimuths to determine if the resulting difference remains constant. This method isolates instrument error from compass or gyro error, ensuring the circle's scale and sight line are consistent.*

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## 6. What will act to dissipate fog?

- Advection of warm air over a colder surface
- **Downslope motion of an air mass along a coast**
- Rain that is warmer than air
- Upwelling cold water

Note:

*Downslope motion warms air adiabatically, decreasing relative humidity and causing fog to evaporate.*

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## 7. Which action is the safest and most prudent procedure to follow while navigating in the vicinity of a tropical cyclone?

- Batten down and prepare to ride out the storm
- Continue to navigate farther from the coast
- Always navigate towards the coast by the most direct route
- **Take positive steps to avoid it if possible**

Note:

*The safest procedure when navigating near a tropical cyclone is to avoid it entirely if possible, prioritizing hazard avoidance over schedule or convenience.*

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## 8. What is NOT an advantage of the rhumb line track over a great circle track?

- **Plots as a straight line on Lambert conformal charts**
- Negligible increase in distance on east-west courses near the equator
- Does not require constant course changes
- Easily plotted on a Mercator chart

Note:

*Rhumb lines do not plot as straight lines on Lambert conformal charts, which is not an advantage over great circle tracks.*

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## 9. Which aid is NOT marked on a chart with a magenta circle?

- Radar transponder beacon
- Radio beacon
- Radar station
- **Aero light**

Note:

*Aero lights are not marked with a magenta circle on nautical charts; this symbol is reserved for radio and radar-based aids to navigation such as radar transponder beacons, radio beacons, and radar stations.*

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**10. An air mass that has moved down from Canada would most likely have which symbols?**

- cPk
- cTw
- mTk
- cTk

Note:

*cPk correctly identifies a cold, dry continental polar air mass originating in Canada and colder than the surface it overruns.*

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