

**Icebergs** are massive blocks of ice, irregular in shape; they float with only about 12 percent of their mass above the sea surface. They are formed by **glaciers**—large rivers of ice that begin inland in the snows of Greenland, Antarctica, and Alaska—and move slowly toward the sea. The forward movement, the melting at the base of the glacier where it meets the ocean, and waves and tidal action cause blocks of ice to break off and float out to sea.

**Directions:** Mark your answer by filling in the oval next to your choice.

1. According to paragraph 1, all of the following are true of icebergs EXCEPT:

- They do not have a regular shape.
- They are formed where glaciers meet the ocean.
- Most of their mass is above the sea surface.
- Waves and tides cause them to break off glaciers.

Icebergs are ordinarily blue to white, although they sometimes appear dark or opaque because they carry gravel and bits of rock. They may change color with changing light conditions and cloud cover, glowing pink or gold in the morning or evening light, but this color change is generally related to the low angle of the Sun above the horizon. However, travelers to Antarctica have repeatedly reported seeing green icebergs in the Weddell Sea and, more commonly, close to the Amery Ice Shelf in East Antarctica.

2. According to paragraph 2, what causes icebergs to sometimes appear dark or opaque?

- A heavy cloud cover
- The presence of gravel or bits of rock
- The low angle of the Sun above the horizon
- The presence of large cracks in their surface

One explanation for green icebergs attributes their color to an optical illusion when blue ice is illuminated by a near-horizon red Sun, but green icebergs stand out among white and blue icebergs under a great variety of light conditions. Another suggestion is that the color might be related to ice with high levels of metallic compounds, including copper and iron. Recent expeditions have taken ice samples from green icebergs and ice cores—vertical, cylindrical ice samples reaching down to great depths—from the glacial ice shelves along the Antarctic continent. Analyses of these cores and samples provide a different solution to the problem.

3. Which of the sentences below best expresses the essential information in the highlighted sentence in the passage? Incorrect choices change the meaning in important ways or leave out essential information.

- One explanation notes that green icebergs stand out among other icebergs under a great variety of light conditions, but this is attributed to an optical illusion.
- One explanation for the color of green icebergs attributes their color to an optical illusion that occurs when the light from a near-horizon red Sun shines on a blue iceberg.
- One explanation for green icebergs attributes their color to a great variety of light conditions, but green icebergs stand out best among other icebergs when illuminated by a near-horizon red Sun.
- One explanation attributes the color of green icebergs to an optical illusion under special light conditions, but green icebergs appear distinct from other icebergs under a great variety of light conditions.