Directions: Read the following article. Then choose the best answers to the questions that follow. You may write on the passage to help you find your answers.

Life History and Management of Blue Crabs
By Brenda Davis and Glenn Davis

(1) Blue crabs have become the most recognizable icon of the Chesapeake Bay region. Throughout their range from Maine to South America, their life cycle is dependent on estuarine habitat. Since the Chesapeake Bay is the western Atlantic's largest estuary, it is not surprising that the blue crab has become intertwined with the ecology, the economy, and the culture of the region. Millions of people enjoy and utilize this important resource each year for restaurant food, recreation, and as livelihood. In the year 2000, the commercial blue crab harvest in Maryland and Virginia was 50.9 million pounds. Despite this being the lowest in over 20 years, blue crabs are still the most valuable commercial species in the Chesapeake, with a dockside value of $54.2 million. When all aspects of commercial and recreational harvest are factored in, the blue crab has an enormous economic impact in both Maryland and Virginia. This is one reason that steps are being taken to reduce the pressure on the blue crab population, in the hope that the trend of a declining population can be reversed.

(2) Those who fish for blue crabs in the Chesapeake Bay use numerous gear types. Crab pots account for most of all crabs harvested commercially. Because crab pots are prohibited for use in most of Maryland's smaller rivers, trotlines are the second most common form for commercial blue crab catch. Bank traps and crab scrapes are used by some commercial crabbers on Maryland's lower Eastern Shore and in Virginia. Crab dredges, which are only used in Virginia during the winter, are the least common overall.

(3) Popular recreational gears include trotlines, collapsible traps, net rings, and hand lines. Two crab pots are allowed for waterfront property owners in Maryland and Virginia.

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1 Estuarine habitat / estuary – The mouth of a river where the fresh water and sea water mix
Due to the crabs’ importance to these states, it is necessary that Maryland and Virginia coordinate their efforts to manage the blue crab resource. In 1996 the Bi-State Blue Crab Advisory Committee (BBCAC) was established for just that purpose. The BBCAC serves under the Chesapeake Bay Commission, and is made up of the natural resource secretaries from each state, key legislators, watermen, fisheries managers, recreational crabbers, and individuals from the crab industry. The BBCAC, along with a select group of scientists and economists, look at issues that affect the blue crab and make recommendations to each state’s government.

Data from surveys conducted by the Maryland Department of Natural Resources (MDNR), Virginia Institute of Marine Science (VIMS), as well as commercial harvest records from both Maryland and Virginia, have been used to estimate the status of the blue crab population in the Chesapeake. The conclusion is that harvest pressure on the crab resource is at an all-time high. It was this conclusion that spurred agencies in both states to propose regulations that would restrict the recreational and commercial effort targeting blue crabs.

The winter dredge survey, conducted by the MDNR and VIMS, is the only bay wide blue crab survey. Each year from December to March, 1500 sites are sampled from Maryland to Virginia. The survey is an accurate measure of crab harvest, and has documented a decline in blue crab abundance since the early 1990s. Similar declines have also been measured by other surveys. Graphs of crab abundance have also shown a decrease in the average size of blue crabs available for harvest.

In addition to a shrinking population, fishing effort targeted at females has intensified. While the overall blue crab harvest has been cut in half, females make up an increasing fraction of that harvest. Mature females were about 27 percent of the Maryland blue crab harvest in the early 1990s and now make up 40 percent. Peelers, of which the majority harvested are female, have increased from 8 percent to 16 percent of the harvest.

Based on this evidence and other data, it has become clear that conservation measures are needed to preserve the blue crab as a resource sustainable for everyone’s use and enjoyment. It is important that in both Maryland and Virginia, recreational and commercial fishermen play a part in blue crab conservation.

1. In the first paragraph, the authors write, “Since the Chesapeake Bay is the western Atlantic’s largest estuary, it is not surprising that the blue crab has become intertwined with the ecology, the economy and the culture of the region” (Davis 1). This sentence’s organization could best be described as—

   A. Description
   B. Cause/Effect
   C. Nonfiction
   D. Sequence
2. Commercial crabbing refers to people who crab—

A. for money/income.
B. for food for their own families.
C. for fun/sport.
D. for only part of the year.

3. The pie chart, “Distribution of Maryland commercial harvest by gear, 1989 – 1999 average,” helps the reader understand that—

A. most recreational crab fishermen use crab pots.
B. almost all commercial crabbers use either pots or trotlines.
C. crabbers prefer bank traps over trotlines.
D. commercial crabbing is harmful to the crab population.

4. The organization pattern used in paragraphs 2-3 could best be described as—

A. Description
B. Cause/Effect
C. Compare/Contrast
D. Sequence

5. Which character from Red Kayak would most likely join the BBCAC?

A. J.T.
B. Brady
C. Mrs. Parks (Brady’s mom)
D. Mr. Parks (Brady’s dad)

6. According to paragraph 5, what caused governmental agencies to propose regulations to restrict crabbing?

A. Local individuals signed a powerful petition, requesting change.
B. Congress passed a new law, forcing local governments to reform their current regulations.
C. Multiple surveys showed the blue crab population to be more stressed than ever before.
D. A news story alerted the public to the opinion of recreational crabbers.
7. Look at paragraph 6 and the graph, “Baywide WDS estimated blue crab abundance and Baywide commercial blue crab harvest”. Mr. Parks would most likely find this information—

A. Encouraging  
B. Silly  
C. Uninteresting  
D. Upsetting

8. According to paragraph 7 of the article, the percentage of female crabs harvested each year is—

A. Irrelevant  
B. Staying the same  
C. Increasing  
D. Decreasing

9. Based on context clues, we can tell that the term peeler, used in paragraph 7, means—

A. A tool used for catching crabs  
B. A type of crab  
C. A type of fishing boat  
D. A tool used to remove crab shells

Pretend Mr. Parks read this article. Write a conversation he would most likely have with Brady about the article. The conversation has been begun for you.

After reading “Life History and Management of Blue Crabs”, Mr. Parks called out, “Hey Brady, come in here! I want to tell you about this article I just read.”