

**Question 1. It is generally believed that large numbers of people were needed to build the pyramids.**

**Passage:** *The pyramids of Egypt were built more than three thousand years ago, and no one knows how. The conventional picture is that tens of thousands of slaves dragged stones on sledges. But there is no evidence to back this up.*

**Question 2. Clemons found a strange hieroglyph on the wall of an Egyptian monument.**

**Passage:** *Now a Californian software consultant called Maureen Clemons has suggested that kites might have been- involved. While perusing a book on the monuments of Egypt, she noticed a hieroglyph that showed a row of men standing in odd postures.*

**Question 3. Gharib had previously done experiments on bird flight.**

**Passage:** *Intrigued, Clemons contacted Morteza Gharib, aeronautics professor at the California Institute of Technology. He was fascinated by the*

*idea. 'Coming from Iran, I have a keen interest in Middle Eastern science,' he says. He too was puzzled by the picture that had sparked Clemons's interest. The object in the sky apparently had wings far too short and wide for a bird. 'The possibility certainly existed that it was a kite,' he says.*

**Question 4. Gharib and Graff tested their theory before applying it.**

**Passage:** *Gharib and Graff set themselves the task of raising a 4.5-metre stone column from horizontal to vertical, using no source of energy except the wind. Their initial calculations and scale-model wind-tunnel experiments convinced them they wouldn't need a strong wind to lift the 33.5-tonne column.*

**Question 5. The success of the actual experiment was due to the high speed of the wind.**

**Passage:** *The wind was blowing at a gentle 16 to 20 kilometers an hour, little more than half what they thought would be needed. What they had failed to reckon with was what happened when the kite was opened. "There was a huge initial force - five times larger than the steady state force" Gharib says.*

**Question 6. They found that, as the kite flew higher, the wind force got stronger.**

**Passage:** *“There was a huge initial force - five times larger than the steady state force” Gharib says. This jerk meant that kites could lift huge weights, Gharib realized. Even a 300-tonne column could have been lifted to the vertical with 40 or so men and four or five sails. So Clemons was right: the pyramid builders could have used kites to lift massive stones into place.*

**Question 7. The team decided that it was possible to use kites to raise very heavy stones.**

**Passage:** *So Clemons was right: the pyramid builders could have used kites to lift massive stones into place. 'Whether they actually did is another matter,' Gharib says. There are no pictures showing the construction of the pyramids, so there is no way to tell what really happened. "The evidence for using kites to move large stones is no better or worse than the evidence for the brute force method" Gharib says.*

**Question 8. The inhabitants of the Aleutian islands renamed their islands Aleyska.**

**Passage:** *More than two hundred years ago, Russian explorers and fur hunters landed on the Aleutian Islands, a volcanic archipelago in the North Pacific, and learned of a landmass that lay farther to the north. 'The islands' native inhabitants called this land mass Aleyska, the 'Great Land'; today, we know it as Alaska.*

**Question 9. Alaska's fisheries are owned by some of the world's largest companies.**

**Passage:** *The rivers feed into the Bering Sea and Gulf of Alaska - cold, nutrient-rich waters which support tens of millions of seabirds, and over 400 species of fish, shellfish, crustaceans, and molluscs. Taking advantage of this rich bounty, Alaska's commercial fisheries have developed into some of the largest in the world.*

**Question 10. Life in Alaska is dependent on salmon.**

**Passage:** 'Salmon,' notes writer Susan Ewing in *The Great Alaska Nature Factbook*, 'pump through Alaska like blood through a heart, bringing rhythmic, circulating nourishment to land, animals and people.' The predictable abundance of salmon allowed some native cultures to flourish, and 'dying spawners\* feed bears, eagles, other animals, and ultimately the soil itself.'

**Question 11.** Ninety per cent of all Pacific salmon caught are sockeye or pink salmon.

**Passage:** All five species of Pacific salmon - chinook, or king; chum, or dog; coho, or silver; sockeye, or red; and pink, or humpback - spawn\*\* in Alaskan waters, and 90% of all Pacific salmon commercially caught in North America are produced there. Indeed, if Alaska was an independent nation, it would be the largest producer of wild salmon in the world.

**Question 12.** More than 320,000 tonnes of salmon were caught in Alaska in 2000.

**Passage:** During 2000, commercial catches of Pacific salmon in Alaska exceeded 320,000 tonnes, with an ex-vessel value of over \$US 260 million. Catches have not always been so healthy. Between 1940 and 1959, overfishing lead to crashes in salmon populations so severe that in 1953 Alaska was declared a federal disaster area.

**Question 13. Between 1940 and 1959, there was a sharp decrease in Alaska's salmon population.**

**Passage:** Between 1940 and 1959, overfishing lead to crashes in salmon populations so severe that in 1953 Alaska was declared a federal disaster area. With the onset of statehood, however, the State of Alaska took over management of its own fisheries, guided by a state constitution which mandates that Alaska's natural resources be managed on a sustainable basis.

**Question 14. During the 1990s, the average number of salmon caught each year was 100 million.**

**Passage:** At that time, statewide harvests totalled around 25 million salmon. Over the next few decades average catches steadily increased as a result of

*this policy of sustainable management, until, during the 1990s, annual harvests were well in excess of 100 million, and on several occasions over 200 million fish.*