

CH-4 “VIKRAM SARABHAI”

D. Reference to context questions:

Context 1:

- (a) The passage reveals that Vikram Sarabhai was deeply interested in space and stars from his childhood.
- (b) The author compares other children chasing butterflies to young Vikram chasing star patterns in the sky. This highlights Vikram's strong passion for space.
- (c) Ahmedabad holds significance as it was Sarabhai's birthplace and where his interest in science and space first developed.

Context 2:

- (a) Bhabha's primary scientific interest was atomic energy and tiny parts of matter, while Sarabhai was interested in space and its applications.
- (b) Their interests complemented each other because they worked together to advance India's scientific progress, despite focusing on different fields.
- (c) The passage suggests that collaboration between scientists with different interests can be beneficial and lead to major scientific achievements.

Context 3:

- (a) The Soviet Union's launch of Sputnik into space in 1961 prompted Sarabhai to propose a space program for India.
- (b) The meeting was significant because it led to the establishment of India's own space program with the support of Prime Minister Nehru.
- (c) The meeting shaped the future of India's scientific endeavours by laying the foundation for the country's space research and programs like ISRO.

Context 4:

- (a) Nehru recognised that space research could be practically used to improve communication, education, and the lives of people in distant areas.
- (b) Nehru's support was crucial, as it provided the encouragement, political backing, and resources necessary for the success of India's space program.

(c) The passage shows that atomic energy and space research were closely linked in India's early scientific development, with cooperation between different scientific departments.

Context 5:

(a) How did Bhabha's attitude towards space research evolve?

→ Initially, Bhabha did not focus much on space research. However, after seeing Sarabhai's knowledge, hard work, and passion, he changed his mind and supported space research.

(b) What qualities of Vikram Sarabhai impressed Bhabha?

→ Sarabhai's deep knowledge, dedication, vision for space science, and hard work impressed Bhabha.

(c) What was the significance of establishing INCOSPAR?

→ Establishing INCOSPAR was important because it marked the formal beginning of India's space program. It laid the foundation for later developments like ISRO.

Context 6:

(a) What broader lessons does the author draw from Sarabhai's life?

→ The author shows that intelligence alone is not enough; teamwork, belief in ideas, and determination are equally important for success.

(b) How does this passage emphasise the importance of collaboration in scientific achievements?

→ It shows that working together and sharing common goals lead to greater achievements than working alone.

(c) What is the moral of this lesson?

→ Success comes from hard work, collaboration, and a strong belief in your vision.

****Question/Answer****

1. Vikram Sarabhai was born in Ahmedabad in a rich and educated family. He loved science from childhood. He studied in India and later went to Cambridge. His family and good education helped him become a great scientist.

2.Sarabhai and Bhabha had different interests—Sarabhai liked space, and Bhabha liked atomic energy. But they worked together and supported each other. Their teamwork helped India grow in both space and atomic science.

3.Nehru wanted to use science for the country's progress. He liked Sarabhai's idea that space science could help common people. Nehru gave full support to Sarabhai to start India's space program.

4.India's space program started with INCOSPAR in 1962. In 1963, the first rocket was launched. In 1969, ISRO was formed. Later, India launched many satellites and even sent missions to the Moon and Mars.

5.Sarabhai had many problems like lack of money, facilities, and trained people. He solved these by training young scientists, getting government support, and working with other countries.

6. Bhabha worked on atomic energy. Sarabhai worked on space science. Their different work helped India grow in both fields—nuclear and space.

7.Sarabhai's work started India's space program. Today, ISRO is world-famous. His idea that space can help people is still true. His work made modern India stronger in science.

8.Sarabhai said space research can help India by improving education, communication, weather reports, and helping farmers. He told the government that space science is useful for the people.