

NCERT Solutions for Class 8 English (Poorvi)

Chapter 15 : Bibha Chowdhari

Let us discuss

I Arrange the following events from Bibha Chowdhuri's life in the correct order of occurrence. Share your answers with your classmates and teacher.

1. The International Astronomical Union (IAU) honoured her legacy by renaming a star in the constellation Leo—HD 86081—as 'Bibha'.
2. She became the first woman faculty member at the Tata Institute of Fundamental Research (TIFR).
3. Bibha Chowdhuri was born in pre-independent India.
4. The Government of India declared a chair professorship in Bibha's name.
5. She joined the University of Manchester under the guidance of the celebrated Nobel Laureate, Patrick M.S. Blackett.
6. She was nominated for a Nobel Prize by Erwin Schrödinger. Answer: 3 → 5 → 6 → 2 → 1 → 4

Let us think and reflect

I Read the given extracts and answer the questions that follow.

1. In 1945, Bibha's academic journey took her to the University of Manchester. Under the guidance of the celebrated Nobel Laureate, Patrick M.S. Blackett, she delved deeper into the field of cosmic rays. Her Ph.D. thesis on cosmic rays earned local recognition, with newspapers introducing her as 'India's New Woman Scientist—She has an eye for Cosmic Rays'.

(i) Why is the mention of Patrick M.S. Blackett, a Nobel Laureate, significant in this extract?

Answer: The mention of Patrick M.S. Blackett is significant because it shows that Bibha was working under one of the most respected and renowned scientists of the time, highlighting the calibre of her research and the respect she had earned in the field of physics.

(ii) What can be inferred about the public perception of women scientists in the 1940s from the title given to her by the press 'India's New Woman Scientist'?

- A. Women scientists were widely accepted and celebrated at that time.
- B. The world was still doubtful about the capabilities of women scientists.

- C. Women scientists were as common and renowned as men in the 1940s.
- D. Women were not allowed to study sciences or pursue scientific careers.

Answer: B. The world was still doubtful about the capabilities of women scientists.

(iii) In the phrase 'celebrated Nobel Laureate,' the word 'celebrated' refers to all of the following EXCEPT someone who is

- A. famous and highly respected
- B. frequently seen in public
- C. renowned for their achievements
- D. well-regarded in their field

Answer: B. frequently seen in public

(iv) Complete the following sentence suitably.

The phrase 'She has an eye for Cosmic Rays' suggests that _____.

Answer: she had a deep understanding and insight into the study of cosmic rays.

2. The journey from Bibha Chowdhuri's era to today's women scientists has been long and arduous, but it is also inspiring. The struggles Chowdhuri faced are a stark reminder of how far we've come—and how much further we have to go. But with every cosmic achievement— be it landing on the moon or reaching Mars—these women prove that the journey is well worth it. Bibha Chowdhuri's legacy lives on. Her story continues to inspire young women to pursue their passions, break barriers, and leave their mark on the world. As the stars of Indian science shine brighter, Bibha Chowdhuri, the beacon-'beam of light,' will always guide the way.

(i) What can be inferred about the challenges faced by women scientists today, as compared to Bibha Chowdhuri's era?

- A. Women scientists no longer face any barriers.
 - B. The challenges remain, but progress has been made.
 - C. The struggles have become more difficult over time.
 - D. The struggles are the same as they were for Chowdhuri.
- Answer: B. The challenges remain, but progress has been made.

(ii) The phrase 'Bibha Chowdhuri's legacy lives on' suggests that _____.

Answer: her contributions continue to inspire and influence future generations.

(iii) Why is Bibha Chowdhuri referred to as a 'beacon' and a 'beam of light' in the extract?

Answer: Because she led the way for women in science through her courage, dedication, and pioneering work, giving hope and inspiration to others.

(iv) State whether the following sentence is a fact or an opinion.

Bibha Chowdhuri was the beacon, the 'beam of light' whose story continues to inspire young women.

Answer: Opinion

II Answer the following questions.

1. Why is Bibha Chowdhuri considered a pioneer in the field of science?

Answer: Bibha Chowdhuri is considered a pioneer because she was the first Indian woman physicist to work in the highly specialized field of high-energy particle physics. She broke gender barriers, conducted crucial research on cosmic rays and subatomic particles, and paved the way for future women in Indian science.

2. What does Bibha Chowdhuri's nomination by Erwin Schrödinger tell us about her abilities?

Answer: It shows that Bibha Chowdhuri's scientific work was of exceptional quality and internationally recognized. Being nominated for a Nobel Prize by a renowned scientist like Erwin Schrodinger indicates her outstanding contributions and talent.

3. Bibha Chowdhuri never worked for awards or recognition. Support this statement with evidence from the text.

Answer: Despite her groundbreaking work, Bibha Chowdhuri never received any awards during her lifetime. She continued her research tirelessly, often working in the background, focusing on her passion for science rather than seeking fame or recognition.

4. How does the renaming of a star as 'Bibha' serve as both a literal and symbolic recognition of her contributions to science?

Answer: Literally, it immortalizes her name in the cosmos, while symbolically, it reflects the "beam of light" she represented in science—illuminating the path for future generations and acknowledging her once-forgotten brilliance.

5. How do the roles of women in ISRO today reflect broader changes in societal attitudes towards women in STEM in India?

Answer: Women in ISRO today hold leadership roles in major space missions, showing that societal attitudes have shifted to recognize and support women's capabilities in science and technology. This progress is rooted in the pioneering efforts of women like Bibha Chowdhuri.

6. What is the writer's purpose of highlighting the contributions of Bibha Chowdhuri and other modern women scientists?

Answer: The writer aims to inspire readers, especially young girls, by showcasing how women have overcome challenges to excel in science. It also seeks to acknowledge unsung heroes and promote gender equality in STEM fields.

7. How might this text help shape people's perception of the role of women in other traditionally male-dominated fields?

Answer: This text challenges stereotypes and encourages society to view women as equally capable in all fields, including those traditionally dominated by men. It motivates individuals to support and recognize women's contributions across professions.