

Question 1:

Here are some headings for paragraphs in the text. Write the number(s) of the paragraph(s) for each title against the heading. The first one is done for you.

- (i) Einstein's equation
- (ii) Einstein meets his future wife
- (iii) The making of a violinist
- (iv) Mileva and Einstein's mother
- (v) A letter that launched the arms race
- (vi) A desk drawer full of ideas
- (vii) Marriage and divorce

Answer:

- 1. (i) 9
- (ii) 7
- (iii) 3
- (iv) 10
- (v) 15
- (vi) 8
- (vii) 11

Question 2:

Who had these opinions about Einstein?

- (i) He was boring.
- (ii) He was stupid and would never succeed in life.
- (iii) He was a freak.

Answer:

- (i) Einstein's playmates thought that he was boring.
- (ii) Einstein's headmaster thought that he was stupid and would never succeed at anything in life.

(iii) Einstein's mother thought that he was a freak.

Question 3:

Explain what the reasons for the following are.

(i) Einstein leaving the school in Munich for good.

(ii) Einstein wanting to study in Switzerland rather than in Munich.

(iii) Einstein seeing in Mileva an ally.

(iv) What do these tell you about Einstein?

Answer:

(i) Albert Einstein was not a bad pupil. He scored good marks in almost every subject. However, he hated the regimentation of school, because of which he often had clashes with his teachers. At the age of 15, when he felt too stifled to continue studying, he left the school in Munich for good.

(ii) According to Einstein, German-speaking Switzerland was more liberal than Munich. Hence, he wanted to study in Switzerland.

(iii) Einstein had a special interest in Mileva, who was his fellow student. He thought that she was a very clever person. She had come to Switzerland because the University in Zurich was one of the few in Europe where women could get degrees. Einstein instantly realised that she was an ally against all the people he was at odds with. He thought she was a clever person.

(iv) All these instances indicate that Einstein was a visionary. He was clever and never hesitated in keeping his point of view in front of others. He never went with the tide and did things the way he wanted to. Once he knew that he was right, he was not afraid of being at odds with his teachers or for that matter anyone else. Even though he was doing well in school, he left it because he found it too stifling. He eventually moved to Zurich because he thought that this city was much more liberal than Munich. He liked to mix with people who had the same attitude as him. He was a strong man who stuck to his principles and ideas and was not afraid of bringing them into practice.

Question 4:

What did Einstein call his desk drawer at the patent office? Why?

Answer:

Einstein was working as a technical expert in the patent office in Bern. He called his desk drawer at the patent office the "bureau of theoretical physics." He called it so because while he was supposed to be assessing other people's inventions, he was actually developing his own ideas in secret and his drawer was where he stored these ideas.

Question 5:

Why did Einstein write a letter to Franklin Roosevelt?

Answer:

When the Nazis came to power in Germany, Einstein emigrated to the United States of America. The American physicists were in an uproar because of the discovery of nuclear fission in Berlin. They were afraid that the Nazis could now build and use an atomic bomb. At the urging of a colleague, Einstein wrote a letter to Franklin Roosevelt to warn him of the consequences of an atomic explosion.

Question 6:

How did Einstein react to the bombing of Hiroshima and Nagasaki?

Answer:

The Americans developed the atomic bomb in a secret project and dropped it on the Japanese cities of Hiroshima and Nagasaki. Einstein was deeply shaken by the extent of the destruction caused by the explosions. He proposed the formation of a world government. However, his proposal was not paid any attention. Over the next decade, he got more involved in politics, trying to agitate people to bring an end to the arms race. He campaigned for peace and democracy till his last days.

Question 7:

Why does the world remember Einstein as a "world citizen"?

Answer:

The world remembers Einstein as a "world citizen" because he was a visionary and a scientific genius. He not only made many discoveries in science but was also deeply

concerned about the growing arms race between certain nations in the world. He used his popularity to campaign for peace and democracy till his last days.

Question 8:

Here are some facts from Einstein's life. Arrange them in chronological order.

- Einstein publishes his special theory of relativity.
- He is awarded the Nobel Prize in Physics.
- Einstein writes a letter to U.S. President, Franklin D. Roosevelt, and warns against Germany's building of an atomic bomb.
- Einstein attends a high school in Munich.
- Einstein's family moves to Milan.
- Einstein is born in the German city of Ulm.
- Einstein joins a university in Zurich, where he meets Mileva.
- Einstein dies.
- He provides a new interpretation of gravity.
- Tired of the school's regimentation, Einstein withdraws from school.
- He works in a patent office as a technical expert.
- When Hitler comes to power, Einstein leaves Germany for the United States.

Answer:

1. Einstein is born in the German city of Ulm.
2. Einstein attends a high school in Munich.
3. Einstein's family moves to Milan.
4. Tired of the school's regimentation, Einstein withdraws from school.
5. Einstein joins a university in Zurich, where he meets Mileva.
6. He works in a patent office as a technical expert.
7. Einstein publishes his special theory of relativity.
8. He provides a new interpretation of gravity.
9. He is awarded the Nobel Prize in Physics.
10. When Hitler comes to power, Einstein leaves Germany for the United States.
11. Einstein writes a letter to U.S. President, Franklin D. Roosevelt, and warns against Germany's building of an atomic bomb.

12. Einstein dies.

Question 1:

Here are some sentences from the story. Choose the word from the brackets which can be substituted for the italicised words in the sentences.

1. A few years later, the marriage *faltered*. (failed, broke, became weak)
2. Einstein was constantly at *odds* with people at the university. (on bad terms, in disagreement, unhappy)
3. The newspapers *proclaimed* his work as "a scientific revolution." (declared, praised, showed)
4. Einstein got ever more involved in politics, *agitating* for an end to the arms buildup. (campaigning, fighting, supporting)
5. At the age of 15, Einstein felt so stifled that he left the school *for good*, (permanently, for his benefit, for a short time)
6. Five years later, the discovery of nuclear fission in Berlin had American physicists in *an uproar*. (in a state of commotion, full of criticism, in a desperate state)
7. Science wasn't the only thing that *appealed* to the dashing young man with the walrus moustache. (interested, challenged, worried)

Answer:

1. Became weak
2. In disagreement
3. Declared
4. Campaigning
5. Permanently
6. In a state of commotion
7. Interested

Question 2:

Complete the sentences below by filling in the blanks with suitable participial clauses. The information that has to be used in the phrases is provided as a sentence in brackets.

1. _____, the firefighters finally put out the fire. (They worked round the clock.)

2. She watched the sunset above the mountain, _____ (She noticed the colours blending softly into one another.)
3. The excited horse pawed the ground rapidly, _____ (while it neighed continually.)
4. _____, I found myself in Bangalore, instead of Benaras. (I had taken the wrong train.)
5. _____, I was desperate to get to the bathroom. (I had not bathed for two days.)
6. The stone steps, _____ needed to be replaced. (They were worn down.)
7. The actor received hundreds of letters from his fans, _____ (They asked him to send them his photograph.)

Answer:

1. Working round the clock, the firefighters finally put out the fire.
2. She watched the sunset above the mountain, noticing the colours blending softly into one another.
3. The excited horse pawed the ground rapidly, neighing continually.
4. Having taken the wrong train, I found myself in Bangalore, instead of Benaras.
5. Having not bathed for two days, I was desperate to get to the bathroom.
6. The stone steps, being worn down, needed to be replaced.
7. The actor received hundreds of letters from his fans, asking him to send them his photograph.