NCERT Solutions for Class 9 English Chapter 4 A Truly Beautiful Mind

Thinking about the Text

Question 1. Here are some headings for paragraphs in the text. Write the number(s) of them paragraph(s) for each title against the heading. The first one is done for you.

(i) Einstein's equation – 9

(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:

(i) Einstein's equation – 9

(ii) Einstein meets his future wife – 7

(iii) The making of a violinist – 3

(iv) Mileva and Einstein's mother – 10

(v) A letter that launched the arms race – 15

(vi) A desk drawer full of ideas – 8

(vii) Marriage and divorce – 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) He was boring – Einstein's playmates

(ii) He was stupid and would never succeed in life – Einstein's headmaster

(iii) He was a freak – Einstein's mother

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:

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(i) Einstein left the school in Munich for good because he disliked the school's regimentation and often had arguments with his school teachers.

(ii) Einstein wanted to study in Switzerland rather than in Munich because Switzerland was a city that was much more liberal than Munich.

(iii) Einstein saw an ally in Mileva because just like him, she too was against 'Philistines' i.e. the people in Einstein's family and at the university with whom he was constantly at odds.

(iv) The above things tell us that Einstein was a very liberal person who liked freedom. He was a person who had his own view about life.

Question 4. What did Einstein call his desk drawer at the patent office? Why?

Answer: Einstein called his desk drawer at the patent office the 'bureau of theoretical physics'. He called it so because he was secretly developing his own ideas and inventions related to physics.

Question 5. Why did Einstein write a letter to Franklin Roosevelt?

Answer: Einstein wrote a letter to Franklin Roosevelt because he wanted to warn America that Germany had the ability to build and use an atomic bomb, which if exploded in a port, would destroy the entire port as well as some of the surrounding territory.

Question 6. How did Einstein react to the bombing of Hiroshima and Nagasaki?

Answer: He was deeply shaken by the extent of destruction due to the bombing of Hiroshima and Nagasaki. He wrote a public missive to the United Nations and proposed the formation of a world government.

Question 7. Why does the world remember Einstein as a "world citizen"?

Answer: The world remembers Einstein as a "world citizen" because he agitated for an end to the arms buildup and campaigned for peace and democracy in the world.

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:

[7] Einstein publishes his special theory of relativity.
[9] He is awarded the Nobel Prize in Physics.
[11] Einstein writes a letter to U.S. President, Franklin D. Roosevelt, and warns against Germany's building of an atomic bomb.
[2] Einstein attends a high school in Munich.
[3] Einstein's family moves to Milan.
[1] Einstein is born in the German city of Ulm.

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[5] Einstein joins a university in Zurich, where he meets Mileva.
[12] Einstein dies.
[8] He provides a new interpretation of gravity.
[4] Tired of the school's regimentation, Einstein withdraws from school.
[6] He works in a patent office as a technical expert.
[10] When Hitler comes to power, Einstein leaves Germany for the United States.

Thinking about Language

I. 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 build-up. (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. A few years later, the marriage became weak. (failed, broke, became weak).

2. Einstein was constantly in disagreement with people at the university. (on bad terms, in disagreement, unhappy)

3. The newspapers declared his work as "a scientific revolution." (declared, praised, showed)

4. Einstein got ever more involved in politics, campaigning for an end to the arms build-up. (campaigning, fighting, supporting)

5. At the age of 15, Einstein felt so stifled that he left the school permanently. (permanently, for his benefit, for a short time)

6. Five years later, the discovery of nuclear fission in Berlin had American physicists in a state of commotion. (in a state of commotion, full of criticism, in a desperate state)

7. Science wasn't the only thing that interested to the dashing young man with the walrus moustache. (interested, challenged, worried)

II. Study the following sentences.

• Einstein became a gifted amateur violinist, maintaining this skill throughout his life.

• Letters survive in which they put their affection into words, mixing science with tenderness.

The parts in italics in the above sentences begin with –ing verbs, and are called participial phrases. Participial phrases say something more about the person or thing talked about or the idea expressed by the sentence as a whole. For example:

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– Einstein became a gifted amateur violinist. He maintained this skill throughout his life.

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. (They worked round the clock.)

2. She watched the sunset above the mountain, noticing the colours blending softly into one another. (She noticed the colours blending softly into one another.)

3. The excited horse pawed the ground rapidly, neighing continually. (While it neighed continually.)

4. Having taken the wrong train, I found myself in Bangalore, instead of Benaras. (I had taken the wrong train.)

5. Having not bathed for two days, I was desperate to get to the bathroom. (I had not bathed for two days)

6. The stone steps, being worn down, needed to be replaced. (They were worn down).

7. The actor received hundreds of letters from his fans, asking him to send them his photograph. (They asked him to send them his photograph.)

Writing Newspaper Reports

Here are some notes which you could use to write a report.

21 August 2005 — original handwritten manuscript of Albert Einstein unearthed — by student Rowdy Boeynik in the University of the Netherlands — Boeynik researching papers — papers belonging to an old friend of Einstein — fingerprints of Einstein on these papers — 16-page document dated 1924 — Einstein's work on this last theory — behaviour of atoms at low temperature — now known as the Bose-Einstein condensation — the manuscript to be kept at Leyden University where Einstein got the Nobel Prize.

Write a report which has four paragraphs, one each on:

• What was unearthed.

• Who unearthed it and when.

• What the document contained.

• Where it will be kept.

Your report could begin like this:

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Student Unearths Einstein Manuscript

21 AUGUST 2005. An original handwritten Albert Einstein manuscript has been unearthed at a university in the Netherlands…

Answer:

Student Unearths Einstein Manuscript

21 AUGUST 2005. An original handwritten Albert Einstein manuscript has been unearthed at a university in the Netherlands.

It was unearthed by a student Rowdy Boeynik while researching papers when he came across some papers belonging to an old friend of Einstein.

The 16-page document dated 1924 contained fingerprints of Albert Einstein. It has Einstein's work on this last theory i.e. the behaviour of atoms at low temperature which is now known as the Bose-Einstein condensation.

The manuscript will be kept at Leyden University where Einstein got the Nobel Prize.

Dictation

Your teacher will dictate these paragraphs to you. Write down the paragraphs with correct punctuation marks.

Answer: Do it yourself.

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