

A Truly Beautiful Mind

Chapter Sketch

This story recounts the life of an outstanding scientific personality, Albert Einstein, from his birth till his death. His theories totally changed our understanding of space and time. Though he was not successful in his family life, his scientific exploits won him the Nobel Prize for Physics in 1921. He was known as a visionary and world citizen as much as a scientific genius.

About the Characters

Albert Einstein He was a genius and peace activist but was not a successful family man. His theories are being proven correct today.

Mileva Maric Einstein's first wife and mother of his two sons, she lost interest in her intellectual ambition and divorced him after 16 years of marriage.

Summary of the Chapter

Early Life of Einstein

Albert Einstein was born to German parents on 14th March, 1879 in Ulm, Germany. His mother thought that he was abnormal because his head was too large compared to other children. He started speaking, that also with difficulty, only by the time he was two-and-a-half years old. He loved to play with mechanical toys and preferred to play alone; thus other children called him 'Brother Boring'. Even his school headmaster was not happy with him, telling his father that Albert would never be successful, whatever career he took up. His mother made him learn how to play the violin at the age of six years. He, later on, became a talented amateur (non-professional) violinist.

Education and Married Life of Einstein

When Einstein's parents shifted to Milan, they allowed him to continue school in Munich, but he left the high school there at the age of 15 years as he felt uneasy with the strictness there. He was extraordinary in Mathematics and interested in Physics. So, he continued his studies at the university in Zurich. There he met a Serbian girl, Mileva Maric, who was also an intellectual. They fell in love and ultimately married after Albert found a job on finishing his university studies. But, their family life was not happy despite having two sons. They finally divorced in 1919.

Einstein's Special Theory of Relativity

Einstein finally secured a job as a technical expert in the patent office in Bern, where he assessed (judged) other people's inventions. Side-by-side, he continued developing his own ideas secretly. He published his Special Theory of Relativity in 1905, according to which time and distance are not absolute (independent).

He derived (obtained) the world's most famous formula describing the relationship between mass and energy:
 $E = mc^2$.

In 1915, Einstein published his 'General Theory of Relativity'. The solar eclipse of the sun proved his theory as correct. He became famous, as his work was considered a 'scientific revolution'. For this and his other achievements, he received the Nobel Prize in Physics in 1921.

Einstein Works for Peace and Democracy

When the Nazis came to power in Germany, Einstein emigrated (moved away) to the USA. When the world's scientists came to know that Germany had developed nuclear fission, they became afraid that the Nazis could build and use an atomic bomb. He was persuaded by a colleague to write to Franklin D Roosevelt, President of the USA, that this development could cause large-scale devastation. This made the Americans develop their own atomic bomb and use it against Japan near the end of the Second World War.

Einstein was shocked by the extent of destruction caused by these bombs and wrote an open letter to the United Nations to stop the arms buildup by forming a 'world government'. Einstein continued campaigning (push or press) for an end to the arms buildup and used his popularity to campaign for peace and democracy during the next ten years, till his death in 1955. He was known and celebrated as a visionary and 'world citizen' as much as a scientific genius.

» Chapter Highlights

- 1 Albert Einstein was born in 1879 in Germany. His mother thought him to be abnormal because of his large head.
- 2 During his childhood, Albert did not play with other children, preferring mechanical toys instead.
- 3 During his schooldays, he did well in studies, though not impressing his headmaster. However, he became a gifted amateur violinist.
- 4 He left school at the age of 15 due to the strict regimentation (discipline) there.
- 5 He shifted to Switzerland to continue his scientific studies at the University of Zurich.
- 6 In the university, he fell in love with a fellow student, Mileva Maric, a Serbian girl.
- 7 After securing a job, he married Mileva and they had two children. However, they gradually grew apart and divorced after 16 years of marriage.
- 8 After graduating, Einstein found a stable job as a technical expert in the patent office in Bern. There he continued his scientific experiments side-by-side.

- 9 In 1905 he stated his Special Theory of Relativity, which related time and distance, giving rise to the well-known $E = mc^2$ equation, relating mass to energy.
- 10 In 1915 he published his General Theory of Relativity, which resulted in his being awarded the Nobel Prize for Physics in 1921.
- 11 When the Nazis gained political power in Germany in 1933, Einstein shifted to the USA.
- 12 When Germany developed nuclear fission, a colleague persuaded Einstein to write to the President of USA, Franklin Roosevelt about the large-scale devastation a nuclear bomb could cause. This resulted in the USA developing its own nuclear bombs and using them on Japan near the end of the war.
- 13 Shocked by the extent of the destruction caused by these bombs, Einstein wrote to the United Nations to stop the arms buildup by forming a 'world government'.
- 14 He used his popularity to campaign for peace and democracy during the next ten years, till his death in 1955. He was known and celebrated as a visionary and 'world citizen' as much as a scientific genius.

Word Meanings

The given page nos. correspond to the pages in the prescribed textbook.

Word	Meaning
PAGE 46	
genius	exceptionally intelligent person
civil servant	civil government employee
took the world by storm	became a sudden success
ground-breaking	pioneering; completely new
particles	small components of matter
electrodynamics	branch of science concerning electricity and magnetism
journals	professional magazines
cosmos	universe
destined	intended
on the contrary	quite the reverse
freak	abnormal person
uttered	spoke
Brother Boring	brother who is not interesting
characterises	describes the nature of
in order	okay
PAGE 47	
make a success	be successful
gifted	having exceptional ability
amateur	doing for pleasure only
regimentation	extreme discipline

Word	Meaning
clashed	argued
stifled	suffocated
for good	forever
prolonged	lengthened
liberal	respecting all opinions
dashing	stylish
walrus moustache	long thick drooping moustache

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special interest	liking
clever creature	smart person
serb	person from Serbia
ally	friend or supporter
philistines	people not liking artistic professions
constantly at odds	always against
couple	man and woman
tenderness	kindness; gentleness
victorious	one who is a winner
secured	found
patent office	government office certifying new inventions
assessing	evaluating
bureau	desk drawer
absolute	fixed

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unravelling	starting to fail
right	immediately
bothered	disturbed
book like you	thinking like you
put the wedding off	postponed the wedding
faltered	weakened

Word	Meaning
intellectual ambition	interest in scholarly work
chapter	part of life
coincided	matched
interpretation	understanding
deflected	changed direction on hitting something
field	area of effect
proclaimed	declared
showered with	given many
lauded	praised highly
the press	newspapers and journalists
Nazis	ruling party in Germany
emigrated	settled permanently
fission	breaking up
in an uproar	very upset
fled	ran away
fascism	extreme system of government

PAGE 50

urging	persuasion
did not fail to have an effect	affected
shaken	shocked
public missive	open letter
decade	ten years
agitating	campaigning
buildup	increase over time
visionary	person who can think about the future
world citizen	person who thinks for the benefit of the whole world

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NCERT FOLDER

(Here we have covered questions given in the NCERT textbook along with their answers.)

Thinking about the Text (Page 50)

- 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.

Ans. (i) Einstein's playmates found him boring.
(ii) A headmaster thought that he was stupid and would never succeed in life.
(iii) Einstein's mother thought that he was a freak because, to her, his head seemed much too large.

- 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?

Ans. (i) Einstein hated the regimented environment of his school in Munich. He always argued with his teachers. His mind was not made for the normal strict and disciplined environment of a school. That is why he left school in Munich for good to enjoy his independence.
(ii) Switzerland was more liberal than Munich. Einstein must have hoped to find a less stifling environment in Switzerland compared to that in Munich. So, he wanted to study in Switzerland.
(iii) Mileva was just opposite to Einstein's parents. Unlike them, she used to appreciate the arts and finer things of life. Her mindset matched with that of Einstein. So, Einstein saw an ally in Mileva.
(iv) These snippets from Einstein's life give an idea about the extraordinary thinking power Einstein was having since his childhood, because only a person with above normal intelligence can think beyond the accepted systems of behaviour and actions. Einstein always liked to take his own decisions which is evident from his insistence on leaving Munich for a better future.

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

Ans. Einstein called his desk drawer at the patent office as the "bureau of theoretical physics". It is not mentioned in the story, but it may be assumed that most of the applications for a patent were of minor changes in scientific theories and practices because really original and innovative ideas rarely come on a

routine basis. Moreover, as Einstein was himself a genius, he could see the errors in the patent applications, as probably most of them must have been only theoretical, with no resultant benefit for mankind. That is why Einstein called his desk, 'the bureau of theoretical physics'.

- 5 Why did Einstein write a letter to Franklin Roosevelt?

or Why did Einstein write a letter to the American President Roosevelt?

Ans. From the story, it is not clear if Einstein wanted the USA to stop Nazis from making the nuclear bomb or wanted to encourage the USA to make a nuclear bomb to utilise its destruction potential. Probably he wanted the USA not to allow the Nazis to make the atomic bomb. However, the result of writing the letter was that the USA made the atomic bomb and used it against Japan.

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

Ans. Einstein was deeply shaken by the mishaps in the cities of Hiroshima and Nagasaki. He wrote a letter to the United Nations urging it to make a world government. He travelled all over the world campaigning for an end to the arms buildup and using his popularity to campaign for peace and democracy.

- 7 Why does the world remember Einstein as a 'world citizen'?

Ans. Einstein's discovery had impacted the whole world by initiating new discoveries about the universe. His theories of relativity changed the perspective through which scientists saw the universe earlier. Apart from this, he worked towards world peace and nuclear disarmament. Because of his scientific and geopolitical contribution Einstein is called a 'world citizen'.

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

- [a] Einstein publishes his Special Theory of Relativity.
- [b] He is awarded the Nobel Prize in Physics.
- [c] Einstein writes a letter to US President, Franklin D Roosevelt and warns against Germany's building of an atomic bomb.
- [d] Einstein attends a high school in Munich.

- [e] Einstein's family moves to Milan.
 [f] Einstein is born in the German city of Ulm.
 [g] Einstein joins a university in Zurich, where he meets Mileva.
 [h] Einstein dies.
 [i] He provides a new interpretation of gravity.
 [j] Tired of the school's regimentation, Einstein withdraws from school.
 [k] He works in a patent office as a technical expert.
 [l] When Hitler comes to power, Einstein leaves Germany for the United States.

Ans. [f] → [d] → [e] → [j] → [g] → [k] → [a] → [i] → [b] → [l] → [c] → [h]

Thinking about Language (Page 51)

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)

Ans. 1. became weak 2. in disagreement
 3. declared 4. campaigning
 5. permanently 6. in a state of commotion
 7. interested

Writing Newspaper Reports (Page 53)

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

21st 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:

Student Unearths Einstein Manuscript

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

Ans. Student Unearths Einstein Manuscript

21st August, 2005. An original handwritten Albert Einstein manuscript has been unearthed at a university in the Netherlands. This belonged, among many other papers of Einstein, to an old friend of Einstein who is no longer alive. This original Einstein manuscript was unearthed by a student named Carl Swatch at the University of the Netherlands last week. Though Swatch is still going through all the papers found, this particular one has created a sensation.

The reason why this document is important is that it contains Einstein's work on his last theory before his death which concerned the behaviour of atoms at very low temperatures. This is now known as the Bose-Einstein condensation. It has been proved that this document was made by Einstein because it has Einstein's fingerprints on it. The university has decided to keep this original manuscript in its archives for further research by scholars.

Exam Practice

Extract Based Questions

[4 Marks each]

Read the following extracts carefully and choose the correct option.

1 The headmaster once told his father that what Einstein chose as a profession wouldn't matter, because "he'll never make a success at anything". Einstein began learning to play the violin at the age of six because his mother wanted him to; later he became a gifted amateur violinist, maintaining this skill throughout his life.

- (i) What was headmaster's opinion about Einstein?
 - (a) He was very intelligent
 - (b) Very hard working
 - (c) Will not succeed in any profession
 - (d) Will be a failure
- (ii) Why did Einstein began learning to play the violin?
 - (a) He loved playing violin
 - (b) His mother wanted him to learn violin
 - (c) His head master wanted
 - (d) His father wanted
- (iii) Which word from the extract means the same as 'a person not skilled for any activity'?
 - (a) Gifted
 - (b) Amateur
 - (c) Skilled
 - (d) Professional
- (iv) How can we say that headmaster was not correct in his opinion of Einstein?
 - (a) Einstein was a successful man
 - (b) He was a gifted child
 - (c) Headmaster could not recognise Einstein's talent
 - (d) Einstein was an average person

- Ans. (i) (c) Will not succeed in any profession
(ii) (b) His mother wanted him to learn violin
(iii) (b) Amateur
(iv) (b) He was a gifted child

2 But Albert Einstein was not a bad pupil. He went to high school in Munich, where Einstein's family had moved when he was 15 months old and scored good marks in almost every subject. Einstein hated the school's regimentation and often clashed with his teachers. At the age of 15, Einstein felt so stifled there that he left the school for good.

- (i) Why did Einstein hate the school?
 - (a) Because of too much crowd
 - (b) Because of its regimentation

- (c) Teachers unable to understand students
- (d) Too much load of studies
- (ii) How can we say Einstein was not a bad pupil?
 - (a) He scored good marks in all subjects
 - (b) He respected school teachers
 - (c) He attended school regularly
 - (d) He loved studying
- (iii) Which word given in the passage may also mean suppressed?
 - (a) Clashed
 - (b) Stifled
 - (c) Hated
 - (d) Scored
- (iv) Why did Einstein leave the school?
 - (a) He hated school's strict discipline
 - (b) Did not like the Head-principal
 - (c) He argued with teachers
 - (d) He was thrown out of the school.

- Ans. (i) (b) Because of its regimentation
(ii) (a) He scored good marks in all subjects
(iii) (b) Stifled
(iv) (a) He hated school's strict discipline

3 Einstein was highly gifted in Mathematics and interested in Physics and after finishing school, he decided to study at a university in Zurich. But science wasn't the only thing that appealed to the dashing young man with the walrus moustache. He also felt a special interest in a fellow student, Mileva Maric, whom he found to be a "clever creature".

- (i) What did Einstein decide to do after schooling?
 - (a) To open a laboratory
 - (b) To pursue a job
 - (c) To attend a university
 - (d) To get married
- (ii) Where did Einstein complete his schooling?
 - (a) Germany
 - (b) Italy
 - (c) Sweden
 - (d) Switzerland
- (iii) Besides studies what else appealed Einstein?
 - (a) His friends
 - (b) Fellow student Mileva Maric
 - (c) Playing violin
 - (d) Conducting experiments
- (iv) Which word from the passage will be antonym of word 'unimpressive and unfashionable'?
 - (a) Daring
 - (b) Dazzling
 - (c) Dashing
 - (d) Alert

- Ans.** (i) (c) To attend a university
 (ii) (d) Switzerland
 (iii) (b) Fellow student Mileva Maric
 (iv) (c) Dashing

4 She was also bothered by Mileva's intelligence. "She is a book like you", his mother said. Einstein put the wedding off. The pair finally married in January 1903, and had two sons. But a few years later, the marriage faltered.

- (i) What bothered Einstein's mother about Mileva?
 (a) Her beauty (b) Her simple nature
 (c) Her intelligence (d) Her behaviour
- (ii) What decision did Einstein take about Mileva?
 (a) Continued friendship
 (b) Got married
 (c) Put off wedding
 (d) Stopped meeting her
- (iii) What does the expression 'marriage faltered' mean?
 (a) Marriage was solemnised
 (b) Marriage came to an end
 (c) Led a happy married life
 (d) Marriage could not be continued
- (iv) Why was Einstein's mother not happy about Einstein's marriage to Mileva?
 (a) Mileva was ugly
 (b) Mileva did not respect her
 (c) Mileva was also a book worm
 (d) Mileva did not love Einstein

- Ans.** (i) (c) Her intelligence
 (ii) (c) Put off wedding

- (iii) (b) Marriage came to an end
 (iv) (c) Mileva was also a book worm

5 The pair finally married in January 1903, and had two sons. But a few years later, the marriage faltered. Mileva meanwhile was losing her intellectual ambition and becoming an unhappy housewife. After years of constant fighting, the couple finally divorced in 1919.

- (i) What was special in Einstein's life in year 1903?
 (a) He invented new theory
 (b) He got married to Mileva
 (c) He got an award
 (d) A son was born to him
- (ii) What changes in Mileva led to her divorce?
 (a) Lost her intellectual ambition
 (b) Lost interest in Einstein
 (c) Grew very irritated
 (d) Fought with Einstein's mother
- (iii) Which word in the passage is antonym of word 'Inconsistent'?
 (a) Disloyal (b) Constant
 (c) Irritated (d) Continual
- (iv) What was the main reason of divorce of Einstein and Mileva?
 (a) Mileva's irrational temper
 (b) Mileva's incompatibility
 (c) Mileva's continuous loss of intellectual ability
 (d) Einstein became disinterested

- Ans.** (i) (b) He got married to Mileva
 (ii) (a) Lost her intellectual ambition
 (iii) (b) Constant
 (iv) (c) Mileva's continuous loss of intellectual ability

Short Answer (SA) Type Questions

[2 Marks each]

1 Did Einstein's letter to American President Franklin D Roosevelt have any effect? What was the result?

Ans. Einstein wrote a secret letter to Roosevelt. His words did not fail to have an effect. The Americans developed the atomic bomb in a secret project and dropped it on the Japanese cities of Hiroshima and Nagasaki in August 1945 destroying it completely.

2 Which remarkable incident happened in the life of Einstein in 1921?

Ans. The remarkable incident was that Einstein received the Nobel Prize for Physics in 1921. He was showered with honours and invitations from all over the world and lauded by the press. It made him famous all over the world.

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

Ans. Einstein was shocked at the extent of destruction caused by the bombing of Hiroshima and Nagasaki and reacted by writing a letter to the United Nations, suggesting the formation of a world government. Later on he got more involved in politics and agitated for an end to arms build up and campaigned for peace and democracy.

4 What did Einstein call his desk drawer at the patent office and why?

Ans. He called his desk drawer at the patent office the 'bureau of theoretical physics' because he was working as a technical expert in the patent office in Bern where he was supposed to be assessing other

peoples' inventions. But here Einstein was developing his ideas secretly. He called his desk drawer at work the 'bureau of theoretical physics'.

5 What is Einstein's Special Theory of Relativity?

Ans. According to Einstein's Special Theory of Relativity, time and distance are not absolute. From this followed the world's most famous formula which describes the relationship between mass and energy i.e. $E = mc^2$.

6 Why does the world remember Einstein as a 'world citizen'?

Ans. The world remembers Einstein as a 'world citizen', because, deeply disturbed due to the bombing of Hiroshima and Nagasaki, he started agitating for an end to the arms buildup and used his popularity for peace and democracy in the world.

7 How was Einstein's private life unravelling after he finished his studies?

Ans. In his private life, Einstein wanted to marry Mileva, but his mother was against it. She thought Mileva was three years older than her son and also too intelligent for him to become just a housewife. He had to put the wedding off for some time then.

8 Why did Einstein play with himself in his childhood?

Ans. Einstein played by himself in his childhood because he did not know what to do with other children and his playmates called him 'Brother Boring'. He was not as active as other children of his age. He was unable to interact properly with others so he played with himself.

Long Answer (LA) Type Questions

[8 Marks each]

1 What was the outcome of Einstein's letter which he wrote to the American President, Roosevelt? Did his warning have any impact on America?

Ans. One of the colleagues of Einstein came to know about the mass build-up of arms by Germany. He urged Einstein to do something for the same. On his colleague's urging, Einstein wrote a letter to the American President, Roosevelt warning him of the consequences of the atomic bomb being developed by Germany. His letter had the necessary impact as the Americans developed their own atomic bomb in a secret project. Einstein feared that Germany might use the atomic bomb for mass destruction but what happened was just opposite. Instead of stopping Germany from developing the bomb they dropped it on the Japanese cities of Hiroshima and Nagasaki in August 1945 causing much destruction and loss of life. Einstein was deeply shaken by the extent of the destruction. Therefore, we can say that there was no impact of Einstein's letter on America. He thought that America would do something better for arms-build was a rat-race and very dangerous but the reality disturbed Einstein very much.

2 Albert Einstein is called a scientific genius. Write down his achievements and comment on his genius.

Ans. Albert Einstein was definitely a scientific genius. He developed his ideas on relativity secretly and that too at a very young age. The Special Theory of Relativity was published when he was just 26 years old. This shows that he was definitely a genius.

This gave a revolutionary concept of the relationship between time and distance. He also gave the revolutionary formula $E = mc^2$. Then in 1915, he proposed the General Theory of Relativity, which was proved correct four years later. These achievements were recognised and he received the Nobel Prize in Physics in 1921. Einstein's theories changed our concept of time, space, energy and gravity. A lot of scientific developments took place based on the theory of Einstein. His contribution in science is much sought after. The world knows him as a visionary and a world citizen. His contribution is also remembered for agitating against the mass build-up of the arms in the world.

3 Einstein was an unusual child with no indication of his potential greatness. Comment.

Ans. Greatness and giftedness doesn't come with a measure. It is just felt from the beginning of the life. Such was the case with little Einstein since his childhood. It was first spotted by his mother. Einstein was an unusual child as his mother felt that he had a larger than usual head for a child of his age. He was called 'Brother Boring' by his playmates as he did not know what to do with them. His playmates didn't think him good enough to be with them. The games they played were not appreciated by Einstein. He loved mechanical toys and even thought his baby sister to be a toy. There was no indication of his potential greatness because his headmaster in school thought him to be good for nothing and felt that he would never succeed in life. But, he was proved wrong. Therefore, an unusual child, who was thought to be not as great as he later became world's most sought after scientist.

Self Assessment

Extract Based Questions

Read the following extracts carefully and choose the correct option.

1 "A single bomb of this type exploded in the port, might very well destroy the whole port together with some of the surrounding territory."

- (i) Who wrote this letter to whom?
 - (a) Einstein's father to Einstein
 - (b) Einstein to US President Roosevelt
 - (c) Another physicist to Mr Einstein
 - (d) Mileva to Einstein
- (ii) What effect did this letter have on the receiver?
 - (a) Einstein was punished
 - (b) US also developed an atomic bomb secretly
 - (c) Bomb was dropped on Hiroshima and Nagasaki
 - (d) Both 'b' and 'c'
- (iii) Which word in the passage would mean the same as 'blow up'.
 - (a) Diminish
 - (b) Shatter
 - (c) Destroy
 - (d) Developed
- (iv) Who has requested Einstein to write to US President?
 - (a) Einstein's mother
 - (b) His children
 - (c) Einstein's father
 - (d) His colleague

2 Einstein was deeply shaken by the extent of the destruction. This time he wrote a public missive to the United Nations. In it he proposed the formation of a world government. Unlike the letter to Roosevelt, this one made no impact. But over the next decade, Einstein got ever more involved in politics – agitating for an end to the arms build up and using his popularity to campaign for peace and democracy.

- (i) Why did Einstein write to United Nations?
 - (a) He was very upset
 - (b) He was shaken by the destruction
 - (c) He proposed the formation of world government
 - (d) All of the above

- (ii) Why did Einstein protest?
 - (a) To end arms build up
 - (b) Stop making atom bombs
 - (c) Wanted people to hear him
 - (d) He was disturbed
- (iii) Find the word from the extract that means 'long official letter'.
 - (a) Document
 - (b) Missive
 - (c) Campaign
 - (d) Letter
- (iv) What was Einstein's objective?
 - (a) Stop war
 - (b) Maintain peace and democracy
 - (c) Stop arms build up
 - (d) All of these

Short Answer (SA) Type Questions

- 3 Why was Albert Einstein's mother against her son marrying Mileva?
- 4 Why was Einstein called 'Brother Boring,' by his playmates?
- 5 What made Einstein leave school at Munich?
- 6 What were the American scientists afraid of?
- 7 Did Einstein's letter to American President, Franklin D Roosevelt, have any effect? What was the result?

Long Answer (LA) Type Questions

- 8 Write down details of the education of Albert Einstein.
- 9 Einstein succeeded in his professional life but failed miserably in his personal life. According to you which is more important—family or profession?
- 10 Einstein thought differently and succeeded in life. Do you believe that all those who think differently succeed in their life like him? Comment.