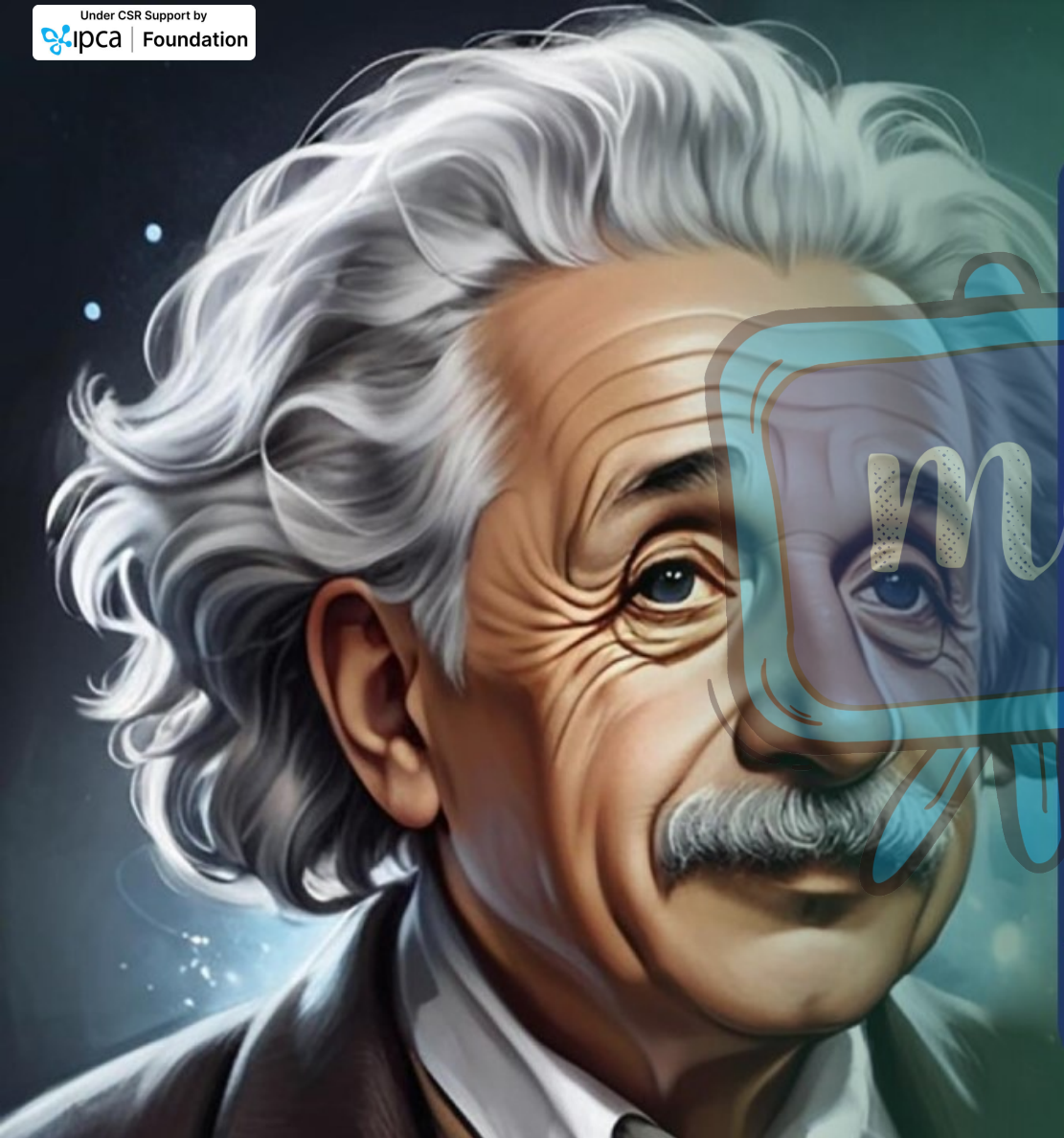
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CLASS – 9

ENGLISH

Beehive

CH-4 : A Truly Beautiful Mind

Part – 2

The Theory of Relativity

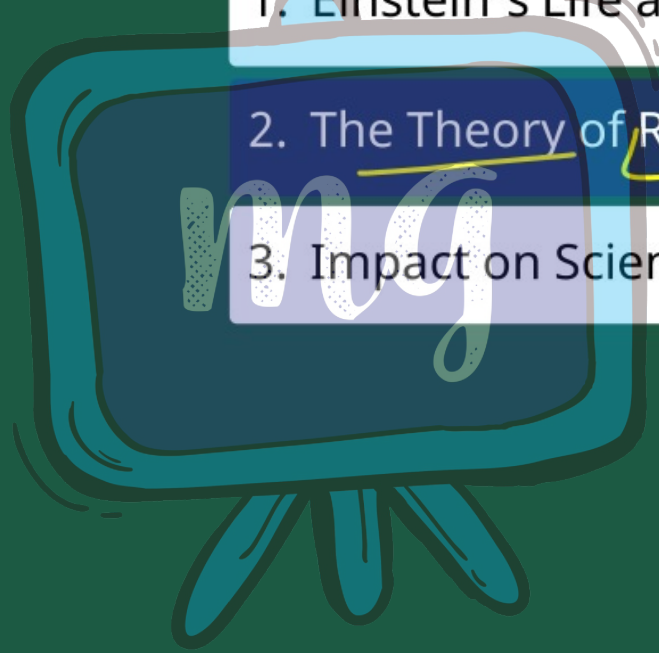
ARPITA SHARMA

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OVERVIEW

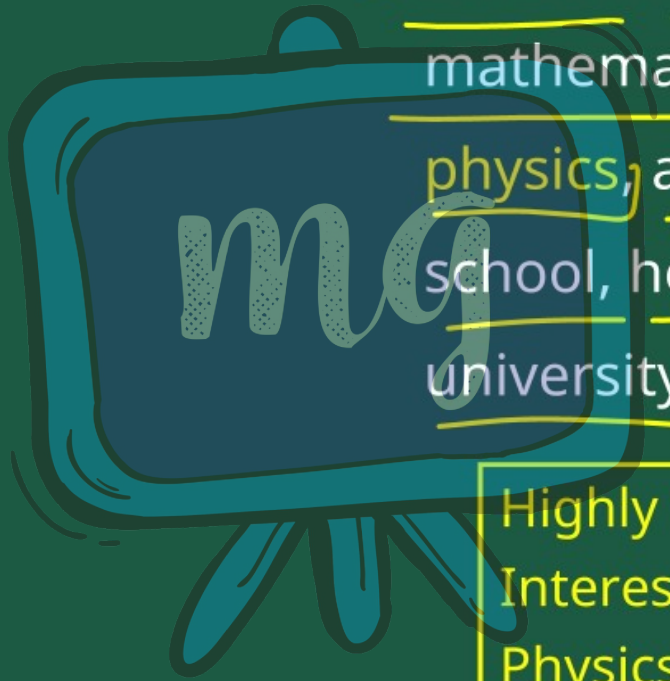
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1. Einstein's Life and Education
2. The Theory of Relativity
3. Impact on Science and Society



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6. Einstein was highly gifted in mathematics and interested in physics, and after finishing school, he decided to study at a university in Zurich.



Highly	:	अत्यधिक
Interested	:	रूचि रखना
Physics	:	भौतिक विज्ञान

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But science wasn't the only thing that appealed to the dashing young man with the walrus moustache.





Appealed to	:	अच्छा लगना
Dashing	:	सुन्दर
Walrus moustache	:	घनी मूंछ

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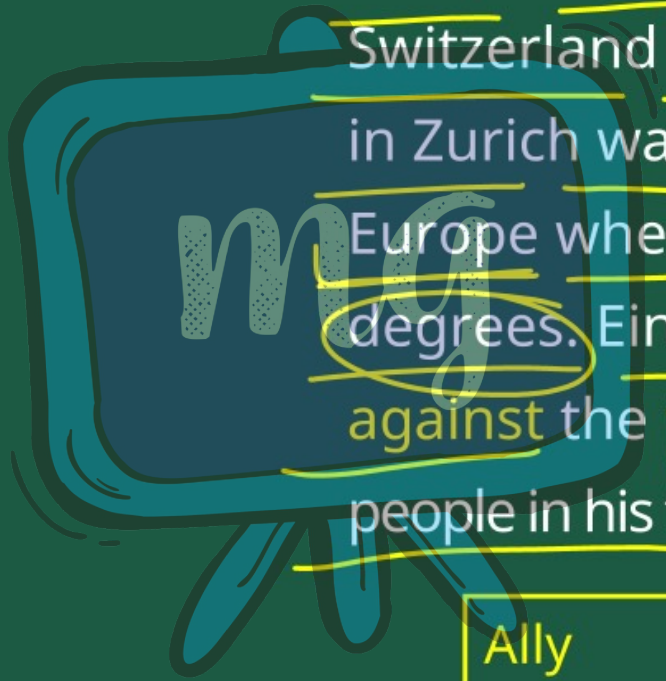
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7. He also felt a special interest in a fellow student, Mileva Maric, whom he found to be a "clever creature."



Fellow	:	साथी
Clever	:	चतुर
Creature	:	प्राणी

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This young Serb had come to Switzerland because the University in Zurich was one of the few in Europe where women could get degrees. Einstein saw in her an ally against the "philistines"—those people in his family and at the university

Ally	:	मित्र
Against	:	विरुद्ध
Philistines	:	संकुचित विचार वाले

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with whom he was constantly at odds. The couple fell in love. Letters survive in which they put their affection into words, mixing science with tenderness.

Constantly	:	निरंतर
Odds	:	मतभेद
Survive	:	जीवित रहना
Affection	:	स्नेह
Mixing	:	मिश्रण
Tenderness	:	स्नेहशीलता

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Wrote Einstein: “How happy and proud I shall be when we both have brought our work on relativity to a victorious conclusion.”



Brought	:	लाना
Relativity	:	सापेक्षता
Victorious	:	विजयपूर्ण
Conclusion	:	निष्कर्ष

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→ Theory
→ Personal life

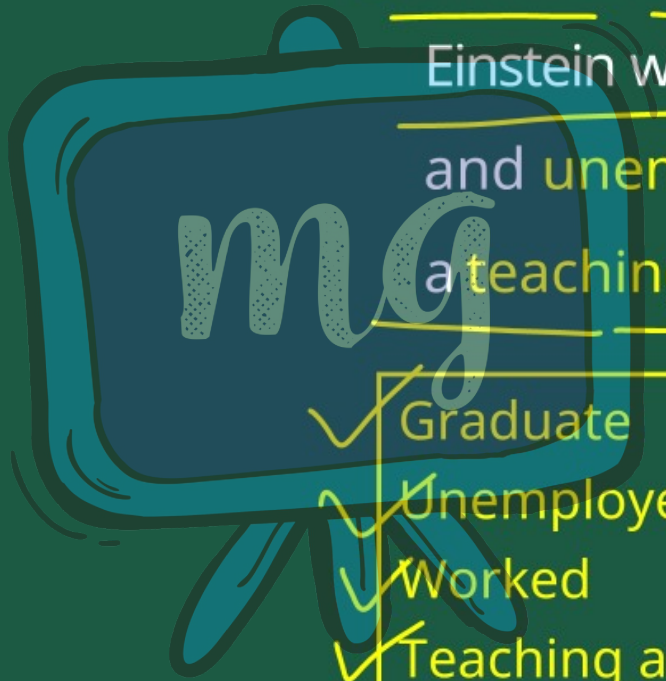
When you sit with a nice girl for two hours, it seems like two minutes. When you sit on a hot stove for two minutes, it seems like two hours—that's relativity. – ALBERT EINSTEIN



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8. In 1900, at the age of 21, Albert Einstein was a university graduate and unemployed. He worked as a teaching assistant, gave private

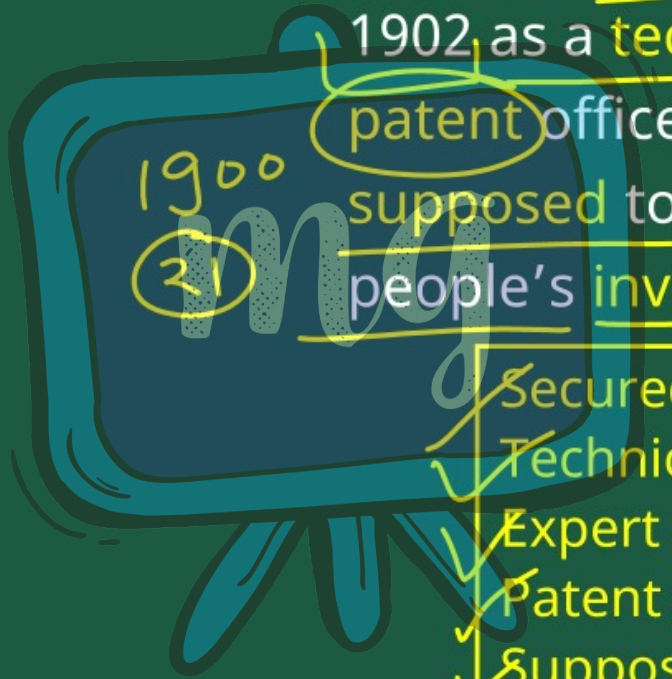


Graduate	:	स्नातक
Unemployed	:	बेरोजगार
Worked	:	काम करना
Teaching assistant	:	शिक्षण सहायक
Private	:	निजी

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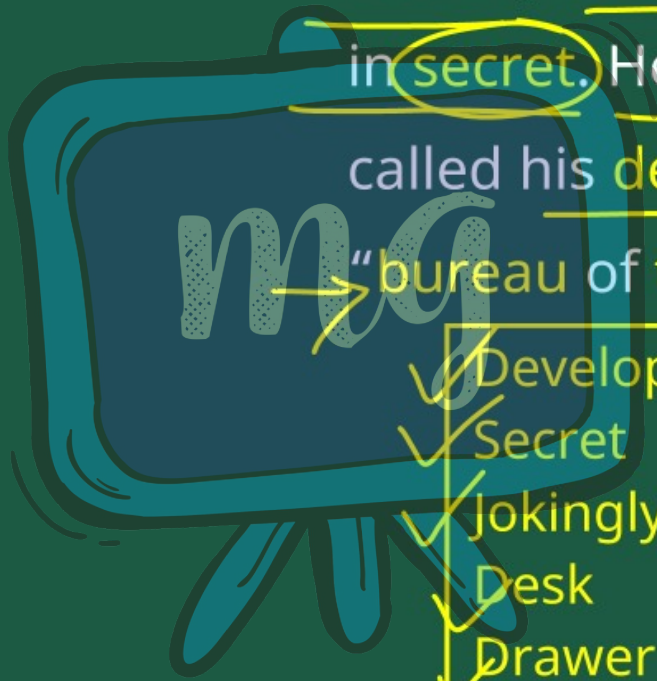
lessons and finally secured a job in 1902 as a technical expert in the patent office in Bern. While he was supposed to be assessing other people's inventions, Einstein was



Secured	:	प्राप्त
Technical	:	तकनीकी
Expert	:	विशेषज्ञ
Patent	:	एकस्व अधिकार
Supposed	:	माना
Assessing	:	आंकलन
Inventions	:	आविष्कार

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actually developing his own ideas in secret. He is said to have jokingly called his desk drawer at work the "bureau of theoretical physics."



Developing	:	विकसित करना
Secret	:	गुप्त
Jokingly	:	मजाक में
Desk	:	मेज
Drawer	:	दराज
Bureau	:	सूचना केंद्र
Theoretical	:	सैद्धांतिक

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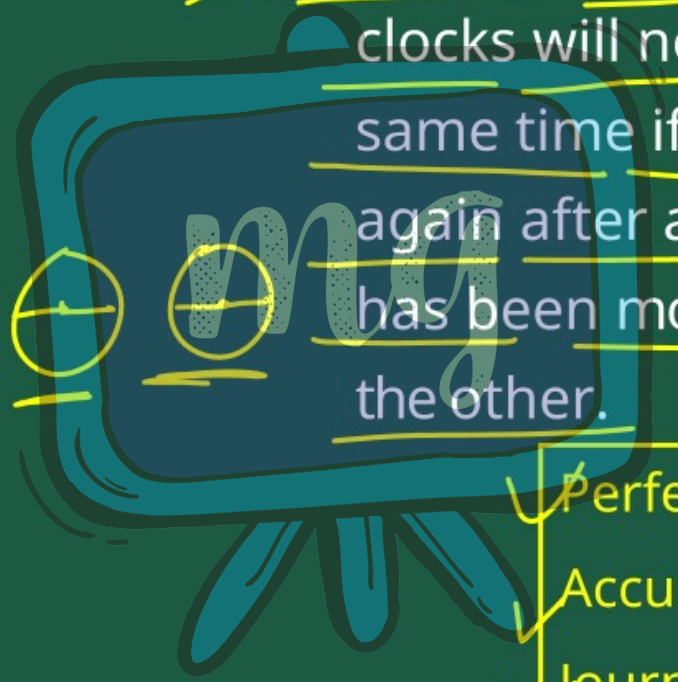
9. One of the famous papers of 1905 was Einstein's Special Theory of Relativity, according to which time and distance are not absolute.

Famous	:	प्रसिद्ध
Theory of Relativity	:	सापेक्षता का सिद्धांत
Absolute	:	निश्चित

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Example

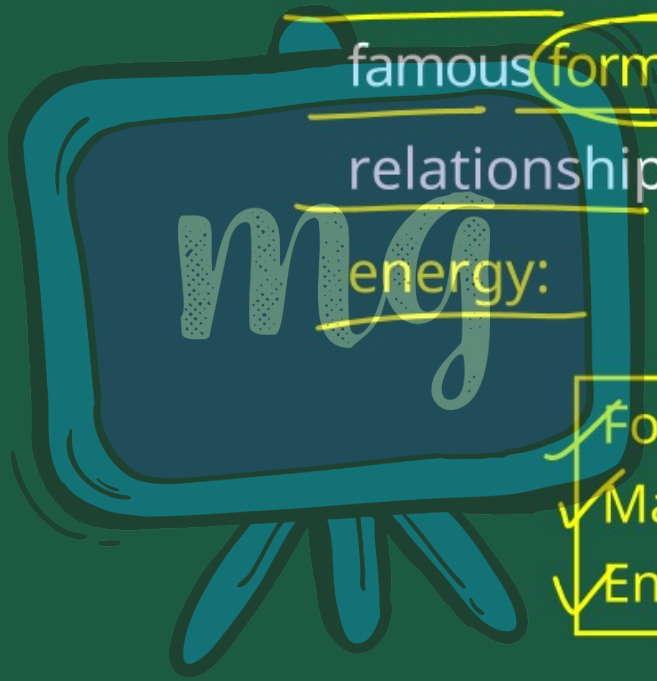
Indeed, two perfectly accurate clocks will not continue to show the same time if they come together again after a journey if one of them has been moving very fast relative to the other.



Perfectly	:	पूरी तरह से
Accurate	:	सही
Journey	:	यात्रा
Relative	:	आपेक्षित

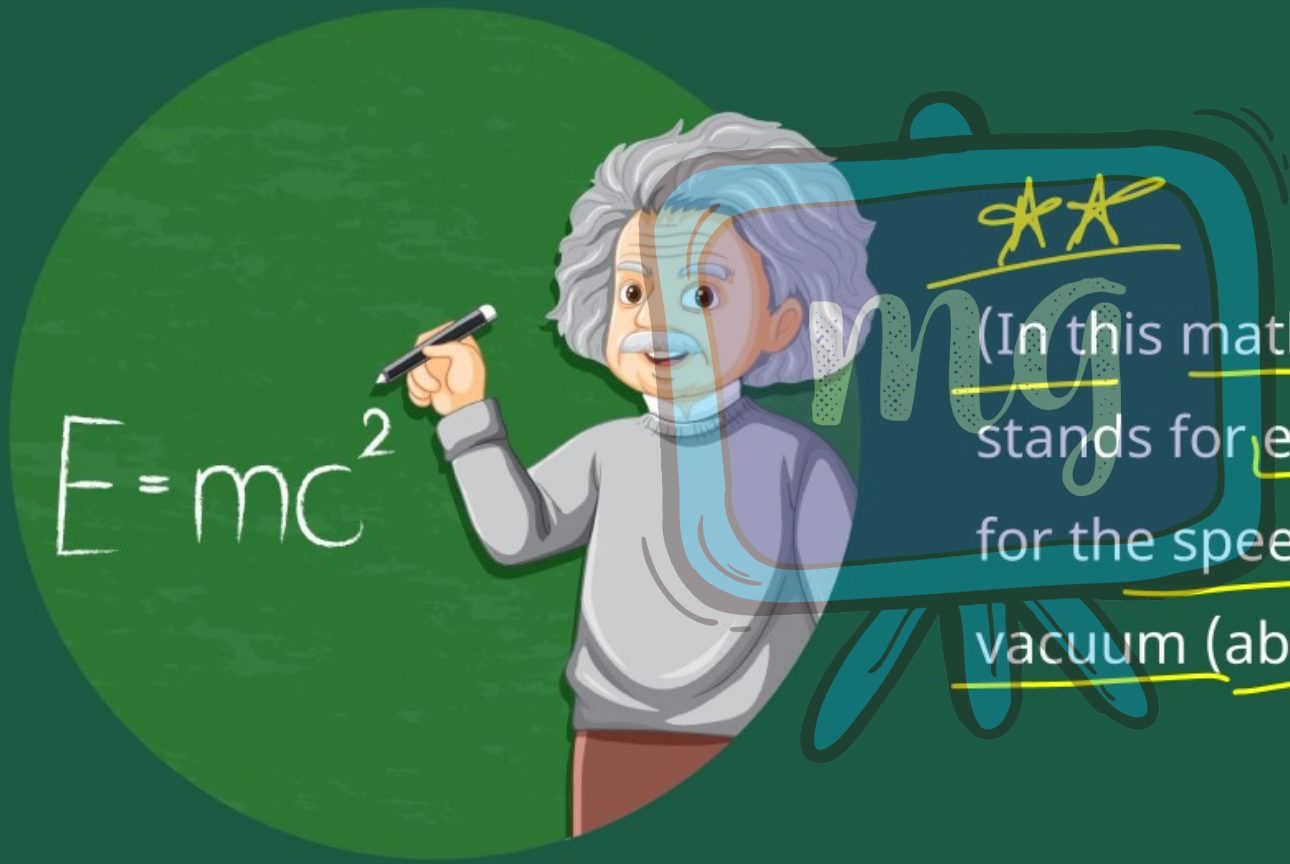
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From this followed the world's most famous formula which describes the relationship between mass and energy:



Formula	:	सूत्र
Mass	:	द्रव्यमान
Energy	:	ऊर्जा

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E = mc²

(In this mathematical equation, E stands for energy, m for mass and c for the speed of the light in a vacuum (about 300,000 km/s).

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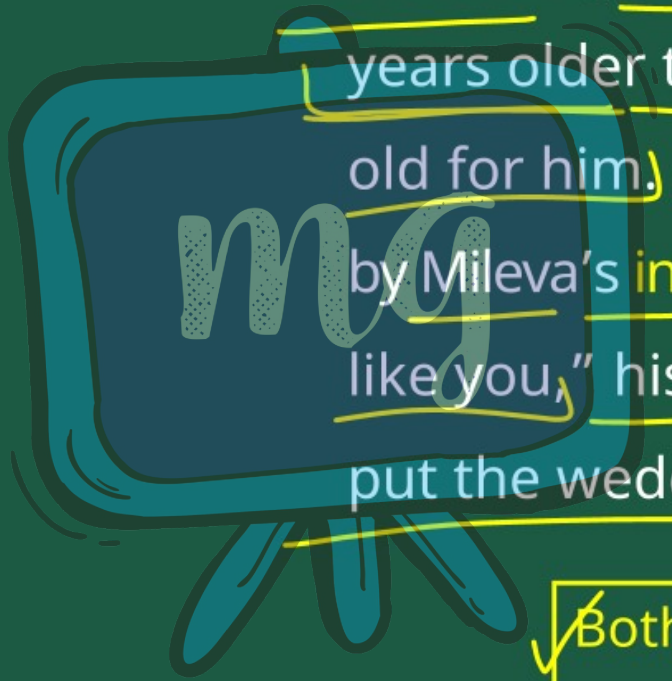
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10. While Einstein was solving the most difficult problems in physics, his private life was unravelling. Albert had wanted to marry Mileva right after finishing his studies, but his mother was against it.

Unravelling	:	उजागर होना/खंडित
Finishing	:	समाप्ति
Against	:	विरुद्ध

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She thought Mileva, who was three years older than her son, was too old for him. She was also bothered by Mileva's intelligence. "She is a book like you," his mother said. Einstein put the wedding off.



Bothered	:	परेशान
Intelligence	:	बुद्धिमत्ता

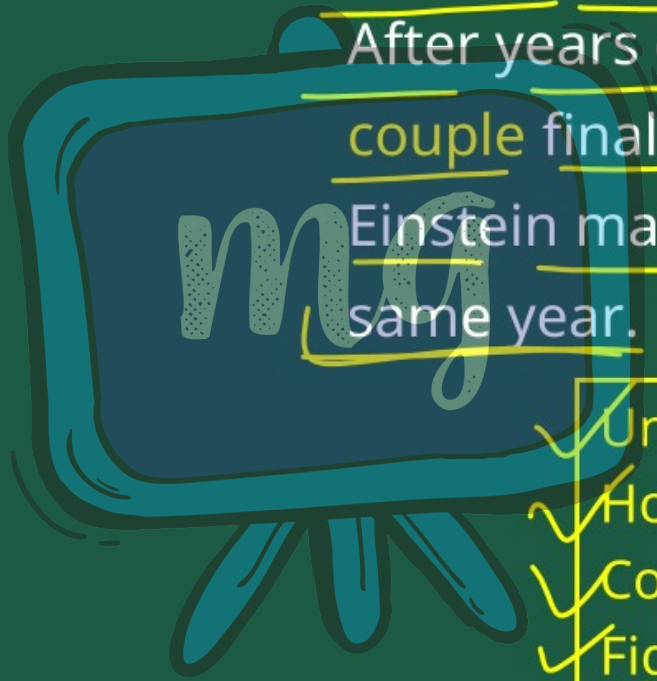
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11. The pair finally married in January 1903, and had two sons. But a few years later, the marriage faltered. Mileva, meanwhile, was losing her intellectual ambition

Faltered	:	कमजोर पड़ना
Meanwhile	:	इस दौरान
Intellectual	:	बौद्धिक
Ambition	:	महत्वकांक्षा

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and becoming an unhappy housewife. After years of constant fighting, the couple finally divorced in 1919. Einstein married his cousin Elsa the same year.



- Unhappy : नाखुश
- Housewife : गृहणी
- Constant : सतत्
- Fighting : लड़ाई
- Divorced : तलाक

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LEARNING OUTCOMES



1. Einstein Academic Interests and Challenges
2. Significance of the Theory of Relativity

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ASSESSMENT



1 In which subjects was Einstein gifted and interested?

A English and History.

B Mathematics and Physics.

C Mathematics and Biology.

D English and Biology.

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ASSESSMENT

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2 What did Einstein call Mileva Maric?

A Clever Creature.

B Silly.

C A dumbo.

D None

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ASSESSMENT

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3 With whom did Einstein fall in love?

A A girl from Munich.

B Mileva Maric.

C A girl from Germany.

D None

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ASSESSMENT

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4 Before securing a job what did Einstein do and which theory did he give to the world?

A Worked as a mechanic, he gave the theory of light.

B Worked as a teaching assistant and gave private lessons. He gave the theory of mass and energy.

C Played violin, he invented the phone.

D None

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