

The Comet - II

Comprehension Check (Page 83)

Question 1:

“For a moment James wondered if he had done his sums right.” Why was James doubtful about his sums and calculations?

Answer:

James was doubtful about his sums and calculations because when James looked up from his window a star-studded night sky, he knew somewhere amongst these stars was Comet Dutta that was heading for a collision with Earth. It was hard for him to believe the calamity of the future could have an impact on such a peaceful night.

Question 2:

What did the scientists at the conference say about James’s ‘sums’?

Answer:

The experts and scientists checked and rechecked James Forsyth’s calculation with the latest observations of Comet Dutta. They found that his calculations and sums were correct that a comet might collide with Earth soon. However, there was a small chance that that the comet might just graze the atmosphere of the Earth and not collide with it. But this slight intermission was not a reassurance for not taking an action.

Question 3:

Immediate action was needed, the scientists decided. Give one example each of ‘defensive’ and ‘offensive’ action mentioned in the text.

Answer:

The ‘defensive’ measures dismissed by the experts was to live in underground bunkers as it was not a practical proposition. The ‘offensive’ action was to marginally deflect Comet Dutta from its path by giving it a push. This could possibly be achieved by placing a nuclear payload in a spaceship and sending it to intercept the approaching comet and detonating it by using a remote control.

Question 4:

“I am not buying any Christmas presents till December 15.” What did Sir John mean by that?

Answer:

When Sir John said that he was not buying any Christmas presents till December 15, he intended to mean that he was quite unsure about the success of this experiment. December 15 was the day the comet would hit the Earth and if the experiment failed, the comet would collide with Earth.

Comprehension Check (Page 87)

Question 1:

What is Duttada expected to do on his return from London?

Answer:

Upon his return from London, Duttada was expected to perform a shanti yagna to pacify the evil spirit behind the comet. This yagna was arranged by his wife, Indrani Debi who thought a yagna could help to minimize the evil effects of a comet on Earth and she had called the priests to bless her husband too.

Question 2:

What is his reaction to the proposal?

Answer:

Duttada reacted very angrily to the proposal of sitting on a yagna to fight the evil effects of a comet that is likely to collide with Earth. He simply remarked it as a superstition and refused to perform the yagna meant to fight the ill-effects of a comet.

Question 3:

(i) What does 'Project Light Brigade' refer to?

(ii) What does Sir John say about the Project in his letter to Duttada in October?

Answer:

- (i) When the scientists in the secret conference were confident that Comet Dutta was likely to collide with Earth soon, they decided to join hands together to save the planet from it. 'Project Light Brigade' refers to the plan to deflect the comet's path by causing a nuclear explosion near it.
- (ii) In his letter to Duttada in October, Sir John mentioned that the 'Project Light Brigade' had begun its charge and they were hoping for the best. This meant that the spaceship with the nuclear payload was launched on time.

Question 4:

Did Sir John buy Christmas presents on December 15? How did Duttada get to know about it?

Answer:

Yes, Sir John bought Christmas presents on December 15. Duttada came to know about it from the urgent telex message sent by Sir John Macpherson on November 18. The letter mentioned that he was confident of buying his Christmas presents on December 15 which meant that 'Project Light Brigade' was indeed a successful operation that helped in averting Comet Dutta.

Question 5:

Why, according to Indrani Debi, had the comet not been disastrous? Do you agree with her?

Answer:

According to Indrani Debi, the comet had not proved to be disastrous because she felt the shanti yagna performed in her house was the ideal solution that helped in averting the comet's path from colliding with Earth.

No, I don't agree with her because her opinion was completely based on superstitions. As a matter of fact, it was the joined efforts of the scientists in the secret conference who chalked out a plan, the 'Project Light Brigade' to deflect the comet's path by causing a nuclear explosion near it. This experiment proved fruitful and helped in saving the Earth and all the people of the planet from a massive destruction.

Question 6:

Is Duttada's general outlook

- (i) rational?
- (ii) moral?
- (iii) traditional?

Choose the right word. Say why you think it right.

Answer:

Duttada was a scientist with a rational and scientific outlook. As he observed stars and their movements, he was aware of what comets are composed of. He was fully aware that there is no connecting link between scientific reason such as appearance of comets and traditions or customs which define misfortunes of the Earth. Hence, he proved his point when he did not participate in the yagna.

Exercise (Page 88)

Discuss the following topics in small groups. Write your answers afterwards.

Question 1:

Should a scientist's findings be suppressed if they seem disturbing? Give reasons for and against the topic.

Answer:

No, a scientist's findings should never be suppressed or ignored because he/she tries to discover the truth behind unknown spatial objects through scientific reason and research. Nicolaus Copernicus was one such mathematician and astronomer. He created a model of the universe that placed the Sun rather than the Earth at the center of the universe, which finally proved to be correct. On the contrary, people in Galileo's time believed that the Earth was indeed at the center of the universe. They believed that the Sun and others planets revolved around it.

Question 2:

Do you think ours is a traditional society? What are some of the things we do to be called traditional?

Do you find these things useless or useful?

Answer:

Yes, our society is still very traditional and conservative, despite the great advancements made by science and factual reason. This is mainly because of the ignorance of the people. The priests try to instil full traditional beliefs in people through various customs and rituals. They believe that they can pacify the evil spirits away by making ample offerings to please God. All these are pointless and futile practices.

Question 3:

Give two or three examples to show how science has been useful to us.

Answer:

Science is a knowledgeable resource which helps us to discover the truth behind unknown possibilities through effective research and reason. It is a never ending process. Science has made living a comfortable process for us and protected us from famines, floods, natural calamities, diseases, etc.

Question 4:

Give one example to show how science has been misused, and has as a result been harmful to us.

Answer:

There has been various misuses of science through the creation of nuclear power or discovery of atomic bomb. The discovery of gun powder has led to the creation of hydrogen bombs and lethal arms and ammunitions. Such misuse of science has therefore, led to huge loss of life and property across the globe.