

STEP 2 級 模擬問題演習

●次の英文の内容に関して、(1) から (4) までの質問に対して最も適切なもの、または文を完成させるのに最も適切なものを1、2、3、4の中から一つ選びなさい。

Meteor Showers

If you look up at the night sky carefully, you can see a few meteors each hour. Several times a year, though, the earth passes through a dust cloud left over from a comet, and for a few hours tens, hundreds, or even thousands of meteors will pass across the sky in a meteor shower. When they enter the part of Earth's atmosphere called the thermosphere* at an extremely high speed, they become very hot due to friction. The thermosphere lies between about 80 km and 120 km in altitude.

In 1833 the Leonid meteor shower was discovered and the interest of scientists became focused on the predicted return of the Leonids as the decade of the 1830's began. Nowadays, many meteor showers can be predicted, since they come every year or so when the earth returns to the same place in its orbit around the sun.

During a meteor shower most of the meteors seem to start near the same place in the sky, called the radiant**. They are named after the constellation that the meteors appear to be coming from. For instance, the meteor shower that has its radiant in the constellation Leo is called the Leonid meteor shower because the meteors appear to be showering out of the constellation Leo.

The Leonid meteor shower occurs every year around November 16 and 17. Every 33 years, the Leonid meteor shower becomes very active because the comet Temple-Tuttle passes by and leaves more comet dust for the earth to pass through.

The only thing you need for a good viewing of the Leonid meteor shower is a dark sky. If possible, find a location with a large area of clear sky. Bright city lights make it impossible to see meteors. The best way to view these shows is to recline on the ground so you can see the whole sky without getting a stiff neck.

* thermosphere 温度圏 ** radiant 輻射点

(1) Meteors

- 1 pass through a dust cloud left over from a comet.
- 2 get very hot because of the friction with the atmosphere.
- 3 return to the same place in the earth's orbit around the sun.
- 4 can be seen in the bright city lights.

(2) What is true about the Leonid meteor shower?

- 1 It has its radiant in the constellation Leo.
- 2 It was discovered in the 1860's.
- 3 It leaves more comet dust around the sun.
- 4 Its period is one day.

(3) Many meteor showers can be predicted because

- 1 they lie between about 80 km and 120 km altitude.
- 2 the interest of scientists became focused on the predicted return of the Leonids.
- 3 they are in a dark sky.
- 4 they repeat almost every year when the earth returns to the same place in its orbit.

(4) Which of the following statements is true?

- 1 Most of the meteor showers occur around the sun.
- 2 You can see the Leonid meteor shower when the comet Temple-Tuttle passes through the earth's atmosphere.
- 3 The meteor shower which appears to come from the constellation Leo is called the Leonid shower.
- 4 You should lie in a place with a fine view of a city when you watch meteor showers.