ENGLISH 2010 (F)

Read *Spaced Out!* and answer questions 32 to 38.

Spaced Out!

Your body in space

Travelling into space must be one of the most exciting and wonderful experiences anyone could ever have. It also has some interesting effects on the human body.

In space there is hardly any gravity, which means astronauts' bones and muscles don't have to work as hard as on Earth to enable them to stand straight or move around. The weightless feeling is similar to what you experience in a swimming pool, only more so. Because muscles (including the heart) don't have to work so hard in space, they shrink and become very weak.

The oxygen we breathe gives our muscles the energy we need to move and with less muscle tissue to feed, there is a lot more oxygen in the astronauts' blood. The astronauts' bodies slow down the production of red blood cells—the part of blood that transports oxygen around our bodies—because there would be too much oxygen in the body. This makes the blood thicker.

Bones lose a lot of calcium—a chemical that makes bones stronger—and become weak and brittle because they don't have to support as much muscle weight.

When astronauts return to Earth, their bodies are adapted to life in space but are not yet fit for life on Earth. As they get used to the Earth's gravitational pull again, they become fitter and stronger and their blood, muscles and bones eventually return to normal.

Spacesuits

Spacesuits are difficult and uncomfortable to wear, so they are only worn for five to seven hours at a time. They are like mini-spacecraft with everything a human body needs to stay alive, such as oxygen and equipment to create the same temperature and pressure that we experience on Earth.



Spacesuits have to be made of thick, tough material to shield against tiny meteorites (micrometeorites) speeding through space. The side of the suit facing the Sun may be heated to a temperature as high as 120 °C; the other side, exposed to the darkness of deep space, may get as cold as -150 °C.

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32. The opening sentence can best be described as

(A) an opinion.
(B) a command.
(C) an explanation.
(D) a well-known fact.

33. Which words would best replace 'hardly any' in the text?

(A) still some
(B) even less
(C) almost no
(D) always a little

34. The writer compares the weightlessness of being in space to

(A) floating in water.
(B) standing up straight.
(C) wearing a spacesuit.
(D) falling through the air.

35. Which word is closest in meaning to 'brittle', as it is used in the text?

(A) fragile (B) stiff (C) painful (D) flexible

36. The word 'micrometeorites' is written in brackets ( ) because it is

(A) a definition.
(B) a quotation.
(C) a translation.
(D) a scientific name.

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37. According to the text, which option correctly matches a statement with its result?

	Statement	Result
(A)	The temperature is lower in space.	Astronauts use less energy.
(B)	Fewer red blood cells are produced by the body in space.	Blood becomes thicker in space.
(C)	Spacesuits have to be worn for a few hours everyday.	Spacesuits have to be made of tough material.
(D)	Spacesuits have to carry equipment to control temperature.	Astronauts wear comfortable spacesuits.

38. Based on this text, which of the following statements about space is correct?

(A) All meteorites are large and travel fast.
(B) People can live without oxygen in space.
(C) In space there are extremes of temperature.
(D) The force of gravity in space and on Earth are the same.

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