**For Students:** Please listen to the teacher read the dialogues and question before answering each question. Please answer the questions with the full answer rather than only the number. The dialogues are contained in this pack after the question for your review. Please do not read them until instructed to do so by the teacher or after the lesson.

# Part 2 – <u>Passages</u>





#### No. 11

- 1 Everyone should avoid consuming gluten.
- **2** Gluten has little influence on people's health.
- 3 Eating gluten prevents the production of certain hormones.
- 4 Gluten is becoming less common in people's diets.

#### No. 12

- 1 Concerns about its negative effects are exaggerated.
- 2 Eating it regularly may cause sensitivity to it.
- **3** It should not be added to some processed foods.
- 4 It cannot be completely removed from foods.

### No. 13

- 1 It did not have any basis in fact.
- **2** It was propaganda created by Cambyses.
- **3** The number of soldiers was overestimated.
- 4 The part about the oasis was added later.

#### No. 14

- 1 They concluded that ancient maps were unreliable.
- 2 They proved that Persians lived in the desert.
- 3 They searched in a different area from previous explorations.
- 4 They were unable to date the objects they found.

# No. 15

- 1 Residents do not listen to scientists' warnings.
- 2 Volcanoes are not regularly monitored.
- 3 The speed of lava flows cannot be judged.
- 4 Predicting eruptions early enough is difficult.

#### No. 16

- 1 Monitor the gases released by volcanoes.
- 2 Protect scientists while they collect data.
- 3 Allow residents to measure volcanic activities themselves.
- 4 Increase the strength of silicon carbide.

#### No. 17

- 1 He lived with his grandmother from birth.
- 2 He was wrongly convicted of drug possession.
- 3 He won literary awards while in prison.
- 4 He became literate as an adult.

#### No. 18

- 1 To educate disadvantaged people.
- **2** To reform the prison system.
- **3** To provide financial aid to the poor.
- 4 To support more activists like Baca.

#### No. 19

- 1 Its outcome may be affected by stress.
- 2 The stress it causes reduced patients' appetites.
- **3** Procedures are poorly explained to patients.
- 4 Some procedures need to be simplified.

#### No. 20

- 1 A protein-free diet restricts blood flow.
- 2 Kidney damage in patients is rare during surgery.
- 3 Changing one's diet before surgery could be beneficial.
- 4 Problems during surgery may become more common.

# (A) Gluten

Grains such as wheat, rye and barley contain a protein called gluten. Some people are gluten-sensitive, which means they cannot properly digest the protein. Such people may experience headaches, stomach problems, or inflammation of the joints when they eat it. Cardiologist Dr. William David suggests that even people who have no sensitivity to gluten from their diet tend to lose weight and feel healthier. David believes consuming gluten causes the body to produce more of the hormone insulin. This stimulates fat accumulation and also creates a feeling of being hungry.

Professor Peter Green of Columbia University in New York, however, says there is no proof the majority of people would benefit from avoiding gluten. He agrees that sensitivity to it can cause adverse reactions in a small percentage of the population, but he doubts it can be blamed for health problems on a broad scale. In fact, Green claims that following a gluten-free diet could cause

nutritional imbalances. When foods are processed to be gluten-free, many vitamins, minerals and other nutrients essential for good health are also lost.

### Questions

- No. 11 What does William David suggest?
- No. 12 What is Peter Green's opinion regarding gluten?

# (B) Cambyses's Lost Army

The lost army of Persian emperor Cambyses II has been an enduring mystery of the ancient world. According to the Greek historian Herodotus, 525 BC an army of 50,000 men vanished in the desert now known as the Egyptian Sahara. Herodotus's account claims that Cambyses sent the trops to destroy the temple of a group of priests who opposed him. After marching for seven days, the troops are said to have reached an oasis. They then mysteriously disappeared without a trace, perhaps buried in a massive sandstorm.

Numerous explorations of the route described by Herodotus revealed no sign of the lost army, so most scholars concluded the story was a myth. However, two Italian archeologists from the Eastern Desert Research Center continued the search. They studied ancient maps of the desert and came to the conclusion that Cambyses's army may have followed a different route. After years of searching, they discovered a mass grave of bleached skulls and bones. Persian arrowheads and other artifacts dating to the time of Cambyses were also found alongside the bones. The two archaeologists hope laboratory tests will provide the remains to be those of the lost army.

# **Questions:**

**No. 13** What did most scholars believe about the story of Cambyses's lost army?

No. 14 What do we learn about the Italian archaeologists?

# (C) Volcanoes

Half a billion people live near active volcanoes. These volcanoes can erupt suddenly, throwing out toxic gases and molten lava. Scientists estimate that volcanic eruptions have killed 260,000 people in the past 300 years. Although there is no way to halt an eruption, advance notice can minimize loss of life by giving people time to evacuate. Residents living near active volcanoes depend on monitoring by scientists to provide a warning if an eruption is imminent.

Until now, due to the extreme heat at close proximity to volcanic craters, scientists have had to rely on seismic measurements taken from a distance to gain clues about impending eruption. Such measurements are unreliable and give little advance warning of an eruption. However, a team of British scientists recently succeeded in making electronic component from silicon

carbide, a substance that can withstand a heat greater than 900 degrees Celsius. Preceding an eruption, there are subtle changes in the gases released from volcanoes, and the British team is using the new components to develop an electronic sensor that can detect these changes. Such a device could help scientists save thousands of lives.

### **Questions:**

**No. 15** What factor increases the number of deaths resulting from eruptions?

**No. 16** What is the device being developed by British scientists intended to do?

# (D) Finding the Words

Jimmy Santiago Baca is one of the foremost contemporary poets in the U.S. To attain his present position, however, he had to overcome hurdles that could have led to a lifetime of misery.

Baca, who is of Native American and Mexican descent, discovered the power of words relatively late in life. At the age of 2, he was abandoned by his parents and taken in by his grandmother. As a teenager, he lived on the streets, and, at 21, he was convicted of drug possession and sent to prison. While serving his 6-year sentence, Baca taught himself to read and write. In the process, he discovered his calling and turned his life around. He has now received some of the most prestigious literary prizes in the U.S.

As well as being a writer, Baca is also an activist. He travels the country teaching writing to inmates and to disadvantaged youth and adults. He has also set up a foundation named Cedar Tree that sponsors programs in the cities where many residents have little access to education or cultural activities. Using his own life as an example, Baca works to promote literacy and literature as a means of personal transformation.

# Questions:

No. 17 What do we learn about Jimmy Santiago Baca?

No. 18 What is the main aim of Cedar Tree?

# (E) Diet and Surgery

Healthcare professionals have long considered that maintaining a normal diet in the days before surgery is important. The consensus is that doing so helps keep stress levels low. Reduced stress is thought to lower the likelihood of problems associated with complicated surgical procedures. Patients are often told not to eat on the day of surgery, but that is only to ensure the stomach is empty to reduce the risk of vomiting.

A recent study on mice by researchers at the Harvard School of Public Health has provide new insight on the subject. The study suggests that not

consuming protein in the days before surgry could prevent serious damage should complications occur. Researchers induced problems similar to those caused by surgical stress by temporarily cutting off blood flow to the kidneys of two groups of mice. One group had been fed a normal diet, while the other had been given a protein-free diet. All mice in the group given the normal diet suffered kidney failure and died within a week. All the mice in the protein-free group survived. While researchers have yet to determine the exact reason for this, they hope to discover whether adjustment to diet before surgery could also benefit humans.

### **Questions:**

What is one thing we learn about surgery? No. 19

What did the results of the Harvard research suggest? No. 20