CHAPTER 11 – PUBLIC ATTITUDES TOWARD SCIENCE

PART A: Vocabulary

Choose a science-related word or term from the box below to complete each sentence. Some words or terms will not be used.

~~science fiction~~	acid rain	physicist	childbirth
equation	greenhouse effect	engineer	mathematical

Example: I saw a ___science fiction_____ movie about aliens from another world visiting Earth.

1. My brother is a(n) _____ who designs roads and bridges.

2. Before modern medicine, many women died during _____.

3. The following is a simple mathematical _____: 3 + 7 = 10.

4. I live in an area of the country with many factories and a lot of pollution. Unfortunately, this pollution is causing _____ which is killing many plants and animals.

5. Computers can perform _____ calculations much more quickly than people.

PART B: Language Focus

Read the sentences below and write any verbs or verb phrases in the passive voice.

Example: *The first Star WarsTM movie was released in 1977.* → *was released*

1. The final exam will be given Monday, December 4, at 12:00. Please arrive by 11:45 that day.
→

2. Thanksgiving, an American holiday, is celebrated on the fourth Thursday of November. On Thanksgiving, Americans give thanks for all of the happiness and good things in their lives.
→

3. Frank Lloyd Wright designed the Guggenheim Museum in New York. The museum was finished in 1957, shortly before Wright died. →

4. I had dinner with some friends at a restaurant last night. When I left the restaurant, I noticed that my car had been stolen.
→

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5. Alexander Graham Bell invented the telephone. The light bulb and record player were invented by Bell's friend Thomas Alva Edison.

→

PART C: Comprehension

1. Science programs on TV should .....?

A. focus on science fiction

B. show science as a kind of magic

C. educate the public, as well as entertain

2. The most urgent science-related issue today is ..... ?

A. the greenhouse effect

B. acid rain

C. nuclear weapons

PART D: Reading comprehension

Read the passage and answer the questions that follow.

Life on Mars

Called the 'Red Planet,' Mars is roughly half the size of Earth, and one of our closest neighboring planets. Though Mars is the most Earth-like of any other planet, the two are still worlds apart.

Living on Mars has been the stuff of science fiction for decades. However, can humans really live on Mars? Will it ever be possible or safe? NASA (the National Aeronautics and Space Administration) hopes to find out. NASA researchers on Earth are conducting several experiments together with the International Space Station (ISS) to study the health and safety issues that may tell us if life on Mars is possible.

Food and oxygen would be the main necessities for travelers living extended periods on Mars. The need to grow plants, which provide both food and oxygen, would be key. But the decreased gravity[1] and low atmospheric[2] pressure environment of the planet will stress the plants and make them hard to grow.

However, space station crews are growing plants in controlled environments in two of the station's greenhouses. They take care of the plants, photograph them, and collect samples to be sent back to Earth. Researchers then use the data to develop new techniques that will make it possible to grow plants successfully in space.

Another concern for space travelers is the health hazards posed by the effect of space radiation on humans. A spacecraft traveling to Mars would be exposed to[3] large amounts of radiation. Since

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human exposure to such intense radiation would mean certain death, the spacecraft used for such travel would have to protect the humans on the inside of the craft from exposure.

Researchers are using special machines inside the crew areas of the International Space Station to carefully watch radiation levels. NASA scientists, who have maintained radiation data since the beginning of human space flight, continue to learn about the dangers it poses. Researchers use the station to test materials that could be used in making a spacecraft that could successfully travel to Mars.

Will it ever be safe for humans to live on Mars? It is still too early to say. But thanks to the dedicated researchers of NASA and the results of ISS experiments, we are getting closer to knowing every day.

1. The reading passage is primarily about _____.
   A. NASA's efforts to see if humans could live on Mars
   B. researching whether plants can grow on Mars
   C. NASA's plans for sending a spacecraft to Mars
   D. experiments happening in the International Space Station

2. The two main necessities for human life on Mars would be _____.
   A. plants and gravity
   B. atmospheric pressure and food
   C. oxygen and plants
   D. food and oxygen

3. According to the reading, the environment on Mars would _____.
   A. add too much stress to scientific experiments
   B. increase gravity
   C. make plants hard to grow
   D. require extended periods of time

4. In paragraph 3, "key" is closest in meaning to _____.
   A. very important
   B. obvious
   C. successful
   D. remarkable

5. Which of the following is <u>not</u> true about the plant experiments on the ISS?
   A. Scientists photograph the plants.
   B. Scientists send samples back to Earth.
   C. The plants are exposed to radiation.
   D. The plants are being grown in greenhouses.

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