**UNIT 6**

**Complete the sentences with the correct words.**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| automatic | conducting | initially | multiple | postponed |

1. The release of the product was \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ because of technical issues.

2. The team \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ thought that the problem was with the battery but later realized it wasn’t.

3. We are \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ research on the type of customer that would buy this product.

4. The factory has a lot of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ processes, meaning humans don’t need to get involved in the production side of things.

5. There are multiple \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ colors of the phone available, including pink, silver, and gold.

**Choose the correct word to complete each sentence.**

6. The students got the teacher’s \_\_\_\_\_\_\_\_\_\_ to leave class five minutes early, so they could begin their research.

|  |  |
| --- | --- |
| a. | circumstances |
| b. | approval |
| c. | reality |

7. If you work as a team, you can be more \_\_\_\_\_\_\_\_\_\_.

|  |  |
| --- | --- |
| a. | effective |
| b. | mechanical |
| c. | multiple |

8. It is important to \_\_\_\_\_\_\_\_\_\_ your students when they do something well.

|  |  |
| --- | --- |
| a. | praise |
| b. | conduct |
| c. | distinguish |

9. It is sometimes difficult to \_\_\_\_\_\_\_\_\_\_ between the twins because they look so similar.

|  |  |
| --- | --- |
| a. | function |
| b. | postpone |
| c. | distinguish |

10. The boat has sails and a \_\_\_\_\_\_\_\_\_\_ to help it move across the water.

|  |  |
| --- | --- |
| a. | reality |
| b. | motor |
| c. | function |

**Match the words to the definitions.**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| 11. | autobiography | ⬤ |  | ⬤ | a. | When something runs without humans, it is \_\_\_\_\_. |
| 12. | autograph | ⬤ |  | ⬤ | b. | An \_\_\_\_\_ is the name or signature by a famous person. |
| 13. | automated | ⬤ |  | ⬤ | c. | An \_\_\_\_\_ is a book written by someone about their own life. |

**Complete the definitions with the correct phrasal verbs.**

|  |  |  |
| --- | --- | --- |
| back up | stick out | try out |

14. to support someone: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

15. to be very easy to notice: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

16. to test something to discover if it works: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Read the passage.**

|  |
| --- |
| **For All Humankind**  Spacesuits are vital to the success of space travel. Without them, the change in pressure in space could cause your lungs to burst and gases to bubble out of your blood.  They are also uncomfortable to wear and difficult to move around in. Astronauts are constantly working against internal air pressure. Wearing one is a bit like trying to move around inside a balloon.  “Everything you’re doing seems to be pushing back against you,” says Cathleen Lewis, who is in charge of spacesuits and international space programs at the Smithsonian’s National Air and Space Museum. Astronauts must spend many grueling hours conducting experiments and making repairs, and even in a well-fitted suit, they might finish spacewalks with various minor injuries. As NASA has warned: “Space travel is not for the meek.”  Until somewhat recently, space travel has not been for women either. In fact, 90 percent of astronauts have been male. But NASA is making changes to their program—and to their spacesuits in particular—to ensure that women and people of color are able to contribute to space exploration.  **A Historic Walk** NASA astronauts Christina Koch and Jessica Meir made history on October 18, 2019, on the first all-woman spacewalk. They spent more than five hours outside the International Space Station on a mission to replace a part that wasn’t working.  The moment didn't come easily. Seven months earlier, Koch had planned to make the first all-woman spacewalk with Anne McClain, another female astronaut. However, there was only one suit available in their size. A larger size was available, so a male astronaut took McClain’s spot, and the historic spacewalk had to be postponed.  The change upset many, but the decision—recommended by McClain herself—was logical in the situation. Fit is the most important quality in spacesuits, keeping astronauts safe and preventing them from getting too tired.  The spacesuit issue illustrated a very real problem: The equipment wasn’t initially designed with women in mind. It’s usually a matter of size—for example, smartphones are often too big for women’s hands. Women are also more likely to be injured in certain types of car crashes because—until recently—crash-test dummies were modeled after male bodies. And it’s not only women that can be left out of design. For example, some automatic sinks have difficulty sensing darker skin. And face masks can be a poor fit for certain ethnicities due to the variety in facial structures.  So, how were spacesuits designed and how will new designs consider the needs of women?  **From Tailored Suits to Many Sizes Fit Most** In the 1960s, each NASA spacesuit was specially designed for the individual wearers, who were all men. When NASA began to plan travel to the moon, the suits had to function in a different way.  “The NASA Apollo program really changed the game,” says Lewis. “They had to design a suit that would not only operate in the vacuum of space, but also would allow astronauts to explore another world—they could get up, walk around, and be autonomous.”  However, producing a unique spacesuit for each astronaut was expensive, especially in the 1970s, when more people were becoming astronauts. The spacesuits needed to be more flexible. Instead of custom-made suits, modular suits were designed. This meant the parts (arms, legs, body) could be put together in different combinations and reused by multiple astronauts.  Around the same time, the first American women were accepted into the astronaut training program. That’s when the differences between male and female bodies became more obvious and fit became especially challenging. NASA started making small and extra small spacesuit parts to address these differences, but they eventually had to stop to cut costs. This lack of availability of parts is what ultimately led to McClain being taken out of the March 2019 mission. |

**Choose *Main Idea* or *Detail*.**

17. Spacesuits are essential for space travel, but they can be uncomfortable and make it difficult for astronauts to move around.

|  |  |
| --- | --- |
| a. | Main Idea |
| b. | Detail |

18. Astronauts spend a lot of time repairing things.

|  |  |
| --- | --- |
| a. | Main Idea |
| b. | Detail |

19. When Christina Koch wanted to do a spacewalk, it had to be postponed because there was no suit that fit females.

|  |  |
| --- | --- |
| a. | Main Idea |
| b. | Detail |

20. Many smartphones are often too large for women to hold in their hands because of design issues.

|  |  |
| --- | --- |
| a. | Main Idea |
| b. | Detail |

21. In the 1970s, more people were starting to become astronauts.

|  |  |
| --- | --- |
| a. | Main Idea |
| b. | Detail |

**Read the passage.**

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| --- |
| **Amazing Products That Tackle Big Challenges** Have you ever been in a difficult situation where you needed something to help you get out of it? Over the years, inventors have continuously designed products that solve big problems. Here is a look at some amazing products that have proven their worth in challenging situations.  **Outdoor Survival Situations** Imagine being lost in the woods or mountains, far from civilization. It is possible that you could be lost or be without the necessary tools to give a signal for help or to make a shelter. This could lead to dangerous situations, especially in bad or unpredictable weather. In response to this challenge, the paracord bracelet was invented. At first, it looks like a simple fashion accessory. However, when it is opened, it provides several feet of strong rope or cord. This can be used for helping to make a shelter, making something to cover a cut if you injure yourself, or even as a fishing line. Perhaps its most striking feature is how small it is, allowing adventurers to always have it on hand, and ensuring there is no chance they are caught unprepared. This product could help save lives.  **Unclean Drinking Water** Globally, many regions lack access to clean drinking water, leading to diseases that could harm people. Travelers also often find themselves in places where the local water could be unclean. To address this, portable water filters were developed. These devices are small enough to fit in a pocket, but powerful enough to remove bacteria, parasites, and even heavy metals from water sources. With these filters, people in remote areas can now access clean water easily. These will no doubt have a lasting impact on global health.  **Energy Shortages in Remote Areas** Electricity is essential in our modern world. However, in some remote regions, there is a lack of reliable power sources. This means that people could struggle with basic needs like having light at night or charging devices. Solar-powered lamps and chargers, which get their power from the sun have become very important for areas like these. These products use the sun's energy during the day to power themselves and provide light and energy during the night. It is a sustainable and effective solution that ensures even the remotest of places are not left in the dark.  **Safety Concerns in Urban Areas** Urban areas such as cities or large towns are full of activity, and often, it is possible that someone might find themselves in a situation where personal safety could be at risk. Walking home late at night or through quiet paths and parks can sometimes make someone feel unsafe. In response to this, personal safety alarms were created. These are small devices that make a loud noise and signal when they are pressed. The sound may help people avoid potential threats and alert others nearby. With a device like this, it is possible that some people may feel safer in certain areas.  **Food Waste** It is no secret that food waste is an important global issue. Often, it is because consumers aren't sure if their stored food is still good to eat or perhaps forget about it until it is too late. The tech world has stepped in with an answer: smart refrigerators. These appliances have cameras and sensors, among many other tools. They can alert owners when food is close to its expiration date, or even suggest recipes based on the ingredients available in the fridge. It is very likely, if they become popular, to lead to a reduction in food waste, benefiting both consumers and the environment.  Whenever there is a challenge, innovative solutions are not far behind. From paracord bracelets to smart fridges, these products show the power of invention and technology in addressing big problems. As we keep moving forward in the 21st century, who knows what exciting new things will be invented that may solve some of the world’s major problems. |

**Choose *True* or *False*.**

22. The paracord bracelet can help you if you get hurt.

|  |  |
| --- | --- |
| a. | True |
| b. | False |

23. The water filters are very small in size but have a huge effect on water.

|  |  |
| --- | --- |
| a. | True |
| b. | False |

24. Solar-powered lamps and chargers can only power devices or product energy in the daytime.

|  |  |
| --- | --- |
| a. | True |
| b. | False |

25. The alarms send a signal to emergency services.

|  |  |
| --- | --- |
| a. | True |
| b. | False |

26. According to the writer, smart fridges are growing in popularity.

|  |  |
| --- | --- |
| a. | True |
| b. | False |

**Match the correct answers to the statements.**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| 27. | In paragraph 2, the word *challenge* signals a … | ⬤ |  | ⬤ | a. | problem. |
| 28. | In paragraph 6, *an answer* signals a … | ⬤ |  | ⬤ | b. | solution. |

**Choose the correct answer to describe each sentence.**

29. There is no way that the updated product will be ready in time for the September release.

|  |  |
| --- | --- |
| a. | very sure |
| b. | somewhat sure |

30. There is a chance that the automatic car will be safer than cars driven by humans.

|  |  |
| --- | --- |
| a. | very sure |
| b. | somewhat sure |

31. The way the phone folds means it might break more easily.

|  |  |
| --- | --- |
| a. | very sure |
| b. | not very sure |

32. There is no doubt the space mission will be a success.

|  |  |
| --- | --- |
| a. | very sure |
| b. | not very sure |

33. Perhaps the new software will be more efficient than the previous version.

|  |  |
| --- | --- |
| a. | very sure |
| b. | somewhat sure |

**Order the statements describing the parts of a problem-solution essay. Write 1 –5.**

|  |  |  |
| --- | --- | --- |
| 34. | \_\_\_\_\_\_\_ | Write your introduction to give a summary of the problem and why it is important. |
|  | \_\_\_\_\_\_\_ | Give good reasons why it is a good solution. |
|  | \_\_\_\_\_\_\_ | In the first body paragraph, describe the problem in detail. |
|  | \_\_\_\_\_\_\_ | Read through your essay to make sure you have included language for problems, solutions, and speculation when you talk about possible side effects. |
|  | \_\_\_\_\_\_\_ | In the next paragraph, describe a solution that addresses the problem. |

**Read the extracts from the passage. Choose the correct description.**

|  |  |
| --- | --- |
| 35. | Imagine being lost in the woods or mountains, far from civilization. It is possible that you could be lost or be without the necessary tools to give a signal for help, or to make a shelter. This could lead to dangerous situations, especially in bad or unpredictable weather. |

|  |  |
| --- | --- |
| a. | description of the problem |
| b. | solution to address the problem |
| c. | reasons why it is a good solution |

|  |  |
| --- | --- |
| 36. | … allowing adventurers to always have it on hand and ensuring there is no chance they are caught unprepared. |

|  |  |
| --- | --- |
| a. | thesis statement which identifies the solution |
| b. | solution to address the problem |
| c. | reasons why it is a good solution |

|  |  |
| --- | --- |
| 37. | … the paracord bracelet was invented. At first, it looks like a simple fashion accessory. However, when it is opened, it provides several feet of strong rope or cord. |

|  |  |
| --- | --- |
| a. | speculation of possible effects |
| b. | solution to address the problem |
| c. | introductory sentence to introduce the topic |

|  |  |
| --- | --- |
| 38. | This can be used for helping to make a shelter, making something to cover a cut if you injure yourself, or even as a fishing line. |

|  |  |
| --- | --- |
| a. | description of the problem |
| b. | speculation of possible effects |
| c. | description of the solution |

|  |  |
| --- | --- |
| 39. | Have you ever been in a difficult situation that you needed something to help you get out of it? |

|  |  |
| --- | --- |
| a. | speculation of possible effects |
| b. | thesis statement which identifies the solution |
| c. | introductory sentence to introduce the topic |

**You are going to write a problem-solution essay on the following topic.**

40. **Discuss your own experiences with one of these two topics.**

**Topic 1:** Think of a problem you have faced at school or work, where a piece of technology helped you solve the problem. Describe the problem and the solution, and why the solution was effective.

**Topic 2:** Think of an environmental problem that could be solved. What is the problem? What are some suggested solutions?

**A. OUTLINE Plan an outline for your problem-solution essay.**

Plan an outline for your problem-solution essay. Write notes only.

|  |
| --- |
|  |

**B. Think of some words and phrases you can use in your problem-solution essay. Write them in the box.**

The words and phrases below can be useful when writing about problems, solutions, and speculation.

**Problems**

*downside*

*challenge*

*challenging*

*problematic*

**Solutions**

*resolve*

*address*

*ensure*

*improved*

**Language for speculation**

**Very sure:** will, won’t, cant, couldn’t, There’s no way/chance that …, no doubt, it’s very likely …

Somewhat sure: should, must, must not, The chances are …, it’s possible that …, perhaps  
**Not very sure:** could, might, may

|  |
| --- |
|  |

**C. Write your problem-solution essay based on your outline. Use the model to help you. Remember to use the vocabulary you wrote down.**

**Model:**

*Many people all over the world work in front of a computer screen or laptop and are therefore often sitting for extended periods of time. Fortunately, there are now many ways in which work can be made more comfortable.*

*When a person sits for a long time, they start to sit in positions that are bad for our bodies in the long- and short-term. Not only this, but our shoulders might start to fall forward rather than stay upright, and our backs are constantly bent. This causes many aches and pains for many people. So, what can be done to fix this issue?*

*One product that addresses these issues is an automatic standing desk that rises and falls at specific times of day. For example, if you have been sitting for too long, the desk gives a signal and then slowly rises to a standing position. The user can then work standing up, with their computer or laptop at a suitable height. If someone is unable to stand for too long, then it’s possible to adjust the desk manually to a seated position. There is also the option to change the height of the desk according to the height of the individual using it. This means there will be more movement, and it’s likely that this product will lead to fewer back, neck, and health issues in the long-term.*

|  |
| --- |
|  |

(12 points)