Reading

Questions 1 – 36

DIRECTIONS: Read each passage below and answer the questions following it. Base your answers **only on information contained in the passage**. You may reread a passage if you need to. Mark the **best** answer for each question.

Scattered across an isolated, flat plain in Shaanxi Province, near the ancient capital of Xi'an, lie dozens of spectacular pyramid mounds that are little known outside China. Mixed in with the reality of these impressive tombs, is a legend of an enormous 1,000-foot white, jewel-capped pyramid that would outshine even the Great Pyramid of Giza. While some researchers believe that aerial sightings of the 'White Pyramid of Xi'an' correspond with the Maoling pyramid, tomb of Emperor Wu of Han, others maintain that the legendary pyramid is yet to be found.

Reported sightings of an enormous white pyramid in China date back more than a century to the diary entries of American travel agent and trader Fred Meyer Schroder, who spotted a set of pyramids in the distance while walking with a Buddhist monk guide in Shaanxi Province in 1912. He reported seeing one giant pyramid, along with smaller pyramids surrounding it. Schroder estimated that the main pyramid was at least 1,000 feet with 500 meter sides. Such dimensions would give the structure a volume ten times greater than that of the Great Pyramid in Egypt, which measures 450 feet in height. Schroder's Mongolian guide, Bogdo, informed him that the pyramids are at least 3,000 years old and that information about them is recorded in ancient monastic documents and is well-known in local legend.

The second and most famous sighting of the White Pyramid of Xi'an came from United States Army Air Corps pilot named James Gaussman, who was flying from China to Assam in India in the spring of 1945, when he reportedly saw a huge white jewel-capped pyramid to the southwest of Xi'an.

Just two years after Gaussman's supposed sighting of a white, jewel-capped pyramid, Colonel Maurice Sheahan, Far Eastern director of Trans World Airlines, was flying over a valley near the Qin Ling Mountains, approximately 40 miles southwest of Xi'an in Shaanxi Province, when he saw a giant pyramid. Sheehan is reported as having said that the pyramid was around 1,000-ft high and 1,500-ft wide and seemed to "dwarf those of Egypt". Two days after the report, the New York Times published a photo of the supposed pyramid, which was later attributed to Gaussman. Meanwhile, Chinese archaeologists were denying that any such pyramid existed.

1. Which of the following best tells what this passage is about?

A. The ancient pyramids in China
B. Sightings of the White Pyramid
C. Proof for the existence of the White Pyramid
D. Feature of the White Pyramids

2. According to the passage, some researchers believe the White Pyramid of Xi'an is

A. Emperor Wu of Han's tomb.
B. Bigger than the pyramids of Egypt.
C. Made of white sandstone.
D. simply a legend.

3. Which of the following is not mentioned in the passage as being a possible feature of the White Pyramid of Xi'an?

A. 500 feet in height
B. 3,000 years old
C. Is mentioned in ancient texts
D. Is kept classified by the Chinese government

4. The passage says the White Pyramid seemed to "dwarf those of Egypt" because, according to sightings, it

A. Could replace the Egyptian pyramids as one of the wonders of the ancient world.
B. Is more spectacular than the Egyptian pyramids.
C. Is bigger mystery than the Egyptian pyramids.
D. Is taller than the Egyptian pyramids.

5. The person attributed with taking picture of the White Pyramid published in the New York Times is

A. Gaussman
B. Sheahan
C. Bogdo
D. Schroder

6. What did Chinese archeologists claim about the White Pyramid of Xi'an?

A. It was at a different location than where the sightings were made.
B. There are no pyramids in China.
C. The White Pyramid of Xi'an is a myth.
D. The top of the pyramid is not made of jewels.

When a bat flies through the air, it rapidly emits a series of high-pitched clicks—at times as many as 200 per second—that are far higher in pitch than the human ear can hear. The bats, though, hear these sounds easily, and analyze the way the sounds bounce off objects in their surroundings before returning to their ears. By following cues in the volume, direction and speed at which these sounds return, bats can effectively see in the pitch-black dark.

Evidence has confirmed that humans—both sighted and vision-impaired—are capable of something similar. Unlike bats, the ability isn't innate, but a number of experiments show that some people can teach themselves how to echolocate. Daniel Kish, who lost his vision when he was a year old, has made headlines for climbing mountains, riding bikes and living alone in the wilderness. Kish is able to perform these tasks because of his uncanny ability to "see" by echolocation.

Prompted in part by the high-profile coverage of Kish's talent, research groups began investigating human echolocation. They've found that although we lack the specialized anatomical structures that evolved specifically for echolocation in species such as bats, the principles are largely the same. To start, a person must make a noise, analogous to the bat's high-pitched click.

Most echolocators, including Kish, make the click by snapping the tip of the tongue against the roof of the mouth, temporarily creating a vacuum, which makes a sharp popping sound when the tongue is pulled away. Kish's idiosyncratic click is particularly well-suited for echolocation: he pulls his tongue backward, away from the palate, instead of downward. Over time, practice can lead to a sharper, cleaner click, which makes echolocation easier.

We can't match the 200 or so clicks per second achieved by bats, but it's not necessary. Kish makes a clicking noise every few seconds, with interludes of silence when he doesn't need to get a new picture of his surroundings.

From there, the sound waves produced by the click are broadcast into our environment at a speed of roughly 1,100 feet per second. Shot out in all directions, these waves bounce off the objects, structures and people around the echolocator and arrive back in his or her ears. The volume of the returning click is much quieter than the original, but those with proper training readily identify the subtle sound. able to analyze these sound waves to generate a picture of the environment.

7. Which of the following best tells what the passage is about?

A. The differences between human and bat echolocation
B. How echolocation allows the blind to see without their eyes
C. The history of Daniel Kish's blindness
D. How humans evolved to use echolocation like bats

8. Why are the echolocation clicks made by bats not audible to humans?

A. The clicks are too low pitched to be detected by human ears.
B. The clicks are too high pitched to be detected by human ears.
C. Bats have smaller mouths with make softer sounds.
D. Bats fly at heights of hundreds of feet through which the sound does not travel.

9. According to the passage, what is the main difference in the frequency of clicks made by bats and those made by Kish?

A. Bats click at 200 per minute and Kish makes 10 clicks a second
B. Bats click faster than can be heard by the human ear, at 1,100 times a minute.
C. Bats click at 1,100 per minute which is 100 times faster than Kish.
D. Bats click at 200 per second and Kish clicks every few seconds.

10. According to the passage, people capable of echolocation are

A. Deaf or visually impaired.
B. Both sighted or visually impaired.
C. Visually impaired since birth.
D. Nearsighted or farsighted.

11. How are Kish's clicks particularly suited to echolocation?

A. He uses his tongue to create a vacuum.
B. He can project the sound waves for 1,100 feet.
C. He uses the tip of his tongue to make a snapping click.
D. He moves his tongue backward instead of downwards.

12. What happens to sound waves after they bounce off structures?

A. They travel roughly 1,100 feet per second.
B. They move around surrounding objects.
C. They decrease in power and dissipate.
D. They return to the echolocator's ears.

Kipukas have been described as living laboratories for evolution. They're pocket forests isolated by lava flows that went around them instead of over. Sometimes the greenery was spared because it was at a higher elevation than the surrounding terrain, and sometimes it just got lucky. Members of species that used to share turf and swap genes got separated by Nature's igneous paving crews. If the environments in their respective kipukas differed, they adapted to the local conditions and began to evolve separately. Drift far enough genetically, and you become a new species. Kipukas help explain Hawaii's extraordinary rate of speciation. From as few as 350 insect and spider colonizers, for instance, Hawaii now has 10,000 species. Six original colonizations of bird ancestors have become 110 species. And because lava flows are easily datable, scientists can look at two closely related species and know which evolved from which.

A lot of the evolution research done on kipukas has focused on drosophila—fruit flies. In part, this is because they're short-lived. A generation comes and goes in a couple of weeks, so evolved traits show up much more quickly than they would in mammals. And drosophila are poor fliers, rarely commuting between kipukas. From one (or a few) original immigrants from Asia, Hawaii now has as many as 800 drosophila species.

Researchers soak sponges in yeasty water to attract fruit flies, then return a couple of hours later with an aspirator to suck them up for study. The sponges come down when the project ends, not just because they're eyesores, but because leaving litter in the forest is disrespectful. Deities of Hawaiian mythology can take the form of natural elements, including the forest itself (the god Kamapua'a) and lava (the goddess Pele).

Hawaii's ecosystems are isolated enough—and thus simple enough—that ecologists can recite the typical order of arrival on new lava. Lichens appear first, needing only air, moisture, rock. Dead, decomposing lichens form the paltry substrate that enables everything else to get established. Moss and ferns are early settlers, as well as the extremely undemanding ohia tree, which makes up the majority of the biomass in any native Hawaiian forest. The leaves and other detritus the ohia drops and the shade it provides set the stage for the next wave of plant life: club moss, grasses, shrubs.

13. Which of the following best tells what the passage is about?

A. The life cycles of the kipuka drosophila
B. How kipukas are formed
C. Different kinds of evolution on Hawaii
D. The unique ecosystems of kipukas

14. According to the passage, pocket forests are spared by the lava because

A. Lava flows under them.
B. Lava cools before it reaches them.
C. They are higher than the nearby land.
D. They contain ohia trees.

15. What unique feature of Hawaiian ecosystems can be explained by kipukas?

A. Speed of speciation
B. Volcanoes
C. Immigration of fruit flies
D. Sharing of land by different species

16. According to the passage, how can scientists study two related spider species in kipukas and know which evolved from which?

A. By finding similar anatomic features
B. By dating lava
C. Attract them with yeast
D. By studying the local conditions

17. Which of the following is not a feature of the drosophila that led to the scientists choosing to study it?

A. Short life span
B. Poor fliers
C. Evolved traits show up more quickly
D. Several features unique to the species

18. The plant making up most of the Hawaiian forest biomass is

A. Lichens
B. Moss
C. Ohia
D. Shrubs

The generation of electricity through nuclear energy reduces the amount of energy generated from fossil fuels. Less use of fossil fuels means lowering greenhouse gas emissions. Currently, fossil fuels are consumed faster than they are produced, so in the next future these resources may be reduced or the price may increase becoming inaccessible for most of the population.

The production of electric energy is continuous. A nuclear power plant is generating electricity for almost 90% of annual time. Nuclear power does not depends on natural aspects. It's a solutions for the main disadvantage of renewable energy, like solar energy or eolic energy, because the hours of sun or wind does not always coincide with the hours with more energy demand.

Nuclear power is an alternative to fossil fuels, so the consumption of fuels such as coal or oil is reduced. This reduction of coal and oil consumption benefits the situation of global warming and global climate change. By reducing the consumption of fossil fuels we also improve the quality of the air affecting the disease and quality of life.

Despite the high level of sophistication of the safety systems of nuclear power plants, the human aspect always has an impact. Facing an unexpected event or managing a nuclear accident, there are no guarantees that decisions taken are always the best.

The Chernobyl nuclear accident is, by far, the worst nuclear accident in the history. Different wrong decisions during the management of the nuclear plant caused a big nuclear explosion. The Fukushima nuclear accident is the second worst accident in the history.

One of the main disadvantages of nuclear energy is the difficulty in the management of nuclear waste. It takes many years to eliminate its radioactivity and risks. The constructed nuclear reactors have an expiration date, after which they have to be dismantled. The investment for the construction of a nuclear plant is very high and must be recovered as soon as possible, so it raises the cost of electricity generated. In other words, the energy generated is cheap compared to the cost of fuel, but the recovery of its construction is much more expensive.

19. Which of the following best tells what this passage is about?

A. The functioning of nuclear reactors
B. The disadvantages of fossil fuels
C. A comparison of fossil fuels and nuclear, wind and solar energy
D. The benefits and drawbacks of nuclear energy

20. According to passage, what is a major drawback of wind energy?

A. Wind speed is often too weak to power more than a small power station.
B. Wind is not blowing at all times that energy is required.
C. Direction of the wind is not always predictable.
D. Electricity made by wind energy can not be transported long distances.

21. According to the passage, which of the following is not a benefit of nuclear power over fossil fuels?

A. Less global warming
B. Less climate change
C. Better quality of life
D. Risk of nuclear accidents

22. What raises the cost of the energy created in a nuclear reactor?

A. The cost of constructing a nuclear reactor
B. The cost of skilled manpower
C. The cost of radioactive materials
D. The security measures due to the risk of a nuclear accident

23. Which of the following best describes what is suggested by the statement "the human aspect always has an impact"?

A. Humans working near nuclear reactors have an increased risk of radiation related illness.
B. People can make mistakes in handling the nuclear reactor.
C. The most sophisticated part of nuclear safety systems is humans.
D. Corrupt people working at a nuclear reactor can cause a nuclear explosion.

24. According to the passage, it takes many years for

A. A nuclear reactor to be built.
B. Benefits of fossil fuel consumption to be evident.
C. Clear up of a nuclear accident.
D. Nuclear waste to become nonradioactive.

On September 25, 1890, President Benjamin Harrison signed legislation establishing America's second national park. Created to protect the giant sequoia trees from logging, Sequoia National Park was the first national park formed to protect a living organism: sequoiadendron giganteum. One week later, General Grant National Park was created and Sequoia was enlarged.

Early access to the Giant Forest to see the sequoia trees was limited to little more than a pack road. Under the leadership of Captain Charles Young, then the only African American commissioned officer in the U.S. Army, the road into the Giant Forest was completed in August 1903. For the first time the "big trees" were accessible by wagon.

The growing popularity of automobile travel led to the building of the Generals Highway in 1926 opening up the Giant Forest to increased visitation. The Ash Mountain entrance became the main gateway to Sequoia -- even in 1927, park visitors sometimes experienced traffic at the check-in station.

Better access to the Giant Forest led to the creation of amenities for the increasing number of visitors. One of the first projects undertaken by the New National Park Service in 1917 was the construction of the first steps to the summit of Moro Rock, a favorite destination. Those first wooden steps to the top of Moro Rock must have provided a thrill for many early park visitors.

In 1940, Congress and President Franklin D. Roosevelt created a new national park to include the glacially-formed splendor of Kings Canyon. The newly established Kings Canyon National Park subsumed General Grant National Park into it. Since the Second World War, Kings Canyon and Sequoia have been administered jointly.

Over the past 125 years, these parks have grown to encompass 1,353 square miles of which 97% is designated and managed as wilderness. Today, more than 1.5 million people enjoy these special places each year. While we face new challenges in the 21st century that were not envisioned when the parks were created, the basic purpose of the parks remains essentially unchanged: to protect and preserve these public lands for future generations

25. Which of the following best describes what the passage is about?

A. How modern roads have revolutionized access to mountainous national parks
B. How astute prior presidents were in establishing Sequoia National Park
C. The ecological danger of allowing forests to be cut down
D. The creation and expansion of Sequoia National Park

26. Sequoia National Park was established for the sole purpose of

A. Preventing sequoia trees from being chopped down.
B. Safeguarding the sequoia from damage from when other tree species fall in the forest.
C. Generating income for the federal government.
D. Providing recreation for people during the Great Depression

27. What is the passage referring to when it says “even in 1927, park visitors sometimes experienced traffic at the check-in station”?

A. The roads were narrow and in poor condition.
B. The security checks of vehicles entering and leaving the park were extensive.
C. The park was frequented by many people.
D. People arrived at the park by both wagon and automobile.

28. According to the passage, General Grant National Park is a

A. Separate park.
B. Part of both Sequoia National park and Kings Canyon National Park
C. Part of Kings Canyon National Park
D. Part of Sequoia National Park

29. According to the passage, who is responsible for forming Kings Canyon National Park?

A. Benjamin Harrison
B. General Grant
C. Captain Charles Young
D. Congress

30. In what year was an automobile accessible road to Sequoia National park completed?

A. 1927
B. 1926
C. 1917
D. 1903

In the Victorian period, wallpaper could–and did–kill. In one sense, it wasn't that unusual; arsenic was everywhere in the Victorian period, from food coloring to baby carriages. But the vivid floral wallpapers were at the center of a consumer controversy about what made something safe to have in your home.

The root of the problem was the color green. After a Swedish chemist named Carl Sheele used copper arsenite to create a bright green, "Scheele's Green" became the in color, particularly popular with the Pre-Raphaelite movement of artists and with home decorators catering to everyone from the emerging middle class upwards. Copper arsenite, of course, contains the element arsenic.

Before the craze for these colors had even reached Britain, the dangers associated with arsenical paints had been acknowledged in Europe, but these findings were largely ignored by British manufacturers.

One prominent doctor named Thomas Orton nursed a family through a mysterious sickness that ultimately killed all four of their children. In desperation, one of the things he started to do was make notes about their home and its contents. He found nothing wrong with the water supply or the home's cleanliness. The one thing he worried about: the Turners' bedroom had green wallpaper. For Orton, it brought to mind an unsettling theory that had been doing the rounds in certain medical circles for years: that wallpaper could kill. This theory held that, even though nobody was eating the paper (and people did know arsenic was deadly if eaten), it could cause people to get sick and die.

William Morris, an artist and designer, was the designer of the most famous wallpaper of the nineteenth century. He was also the son of the man whose company was the largest arsenic producer in the country. Although others suspected arsenical wallpaper, Morris didn't believe—or claimed not to believe—that arsenic was bad for you. Morris held that because he and his friends had arsenical wallpaper in their homes and the wallpaper hadn't caused them to get sick, so it had to be something else. Most people didn't agree. Morris, like other wallpaper-makers, had stopped using arsenic in their papers as the result of public pressure. As newspaper reports and other media popularized the idea that arsenic was toxic, and not just when ingested, consumers turned away.

31. Which of the following best tells what this passage is about?

A. The evolution of wallpaper colorants
B. Arsenic poisoning from Victorian wallpaper
C. Copper arsenite
D. The lack of consumer awareness about the dangers of Victorian wallpaper

32. What was the controversy surrounding green wallpaper?

A. The value of copper arsenic
B. The safety of everyday home items
C. The arsenic content in wallpaper rising every year
D. The lack of information provided to consumers

33. Why does the passage refer to Orton as acting “in desperation”?

A. He couldn’t find any explanation for the illness.
B. He was running out of time to find a cure.
C. The arsenic in the wallpaper was making him sick too.
D. He wanted to find a solution before the parents succumbed too.

34. Why does the passage restate Morris “didn’t believe” with “claimed not to believe”?

A. Morris revealed years later that he had changed his mind.
B. Morris was lying.
C. Morris had a conflict of interest because his father owned a wallpaper company.
D. It is not possible to know what Morris was thinking.

35. Among the medical community, what was a theory about arsenic?

A. Arsenic in wallpaper was more poisonous than arsenic in food.
B. Arsenic in food was more poisonous than arsenic in wallpaper.
C. Arsenic in wallpapers could be poisonous.
D. The arsenic from both food and wallpaper added up to make people more ill.

36. Which of the following was not mentioned in the passage as containing arsenic in the Victorian period?

A. Food coloring
B. Baby Carriages
C. Green Wallpaper
D. Green clothing