

Reading Comprehension HESI A2 Practice Test

Section: HESI A2 Reading Exams • Total Questions: 10 • Format: Verified Q&A

1. What word means the same as relinquishing as it is used in the last paragraph?

Croatian-born inventor Nikola Tesla is often called the "forgotten scientist". Although he invented the alternating current (AC) motor and developed an AC electricity generation system, he never received historical credit for many of his achievements, unlike one of his first employer and eventual nemesis, inventor Thomas Edison

Tesla made the first sketches of his idea for a brushless AC motor while he was a student at the University of Prague in 1882. His interest in electricity generation led him to Paris where he was employed by the Continental Edison Company later that year to repair Edison's direct current (DC) power plants. Two years later, Tesla immigrated to New York City and acquired a job as an engineer at Thomas Edison's headquarters in Manhattan. Edison was impressed with Tesla's work ethic and ingenuity. He challenged the young scientist to develop an improved design for his DC generators for \$50,000. Tesla experimented for months, finally presenting Edison with the solution he needed. Edison reneged on the deal, telling Tesla that he didn't understand American humor. Tesla soon left Edison in order to begin his own electric light company

Tesla filed and was granted more than 30 patents for his inventions in 1887 and 1888. He soon had financial backing for his ideas from one of Edison's main competitors, Westinghouse. In the 1890's Tesla experimented with x-rays, developed a high-voltage electrical transformer called the Tesla coil, and demonstrated the propagation of radio waves two years before the "Father of Radio" Guglielmo Marconi. He was also the first to harness the mammoth potential energy of Niagara Falls. He worked with General Electric to install AC generators with turbines driven by the falling waters of the Niagara River, creating the first modern power plant although a brilliant scientist, Tesla was not an astute businessman. He created his own obscurity by relinquishing royalty rights for his inventions to major corporations for the purpose of raising funds for future projects.

- (A) Maintaining
- (B) Retaining
- (C) Selling
- (D) Surrendering

2. Which transitional expression best replaces 'ultimately' in the following sentence: 'Ultimately, condensation happens when water vapor cools'?

The Water Cycle

Water is needed to sustain practically all life functions on planet Earth. A single drop of this compound is composed of an oxygen atom that shares its electrons with each of the two hydrogen atoms.

The cycle starts when precipitation, such as rain, snow, sleet, or hail, descends from the sky onto the ground. Water that is not absorbed immediately from the precipitation is known as runoff. The runoff flows across the land and collects in groundwater reservoirs, rivers, streams, and oceans.

Evaporation takes place when liquid water changes into water vapor, which is a gas. Water vapor returns to the air from surface water and plants.

Ultimately, condensation happens when this water vapor cools and changes back into droplets of liquid. In fact, the puffy, cotton clouds that we observe are formed by condensation. When the clouds become heavily laden with liquid droplets, precipitation ensues.

- (A) While
- (B) Furthermore
- (C) Since
- (D) Moreover

3. Based on the passage, which statement is supported?

Over the last few decades, medical experts have changed their thinking on the health effects of some common foods and beverages. Higher-fat foods and some alcoholic beverages like red wine and beer, once viewed as top threats to a healthy lifestyle, are now seen by many as less harmful and even as having some health benefits. But there is perhaps no topic that the medical community has reversed its thinking on more often than coffee. Since long before the advent of modern medicine, public opinion regarding the health effects of coffee has been diverse and ever-changing. Opinion on coffee's health effects can be traced back several centuries. In the 1600s, doctors in England touted coffee as a cure for alcoholism, but some women complained that coffee was making their husbands impotent. They may have been correct, as caffeine is a diuretic and can irritate the prostate (dehydration and prostatitis can both lead to erectile dysfunction). In the late 1700s, coffeehouses began opening all over colonial America, where coffee was seen as a healthy stimulant that helped the colonists work longer hours. But by the early 1900s, public concern grew as coffee consumption was blamed for a variety of common ailments, such as nervousness, indigestion, and insomnia. In the 1970s, medical journals published studies that linked coffee consumption with high blood pressure and an increased risk of heart attacks. In 2001, a meta-study indicated that coffee was responsible for a 20% increase in risk for urinary tract cancer. But starting in 2007, to the surprise of many, meta-studies began to show positive health effects of coffee consumption. A 2007 study showed that coffee was viewed by many as "practically a health food." However, CNN also warned that given the long history of flip-flops on the health effects of coffee, medical and public opinion on coffee could easily turn negative again.

- (A) Recent studies indicate that coffee consumption increases the risk of liver cancer.
- (B) There is some scientific evidence that drinking coffee reduces indigestion.
- (C) Published studies have found that drinking coffee may increase the risk of heart attack.
- (D) There is no reported evidence of any link between coffee consumption and stroke.

4. According to the passage, what did Fred Rogers believe in?

Mr. Rogers' Biography

"It's a wonderful day in the neighborhood!" This familiar line always began the Mister Rogers' Neighborhood program on PBS. The amazing Fred Rogers brought a special message to children around the world. He believed that each person is unique and wonderful in his or her own way and we should accept others just the way they are without trying to change or improve them. Mr. Rogers spread his tolerance message far and wide through the daily broadcasts of his television show, his many books, and finally after his retirement through his website specifically designed for children. Through these venues, Mr. Rogers helped children deal with the real world things that bothered them, such as doctor visits, haircuts, and new siblings.

Fred Rogers left a legacy of kindness, acceptance, and an unending love of learning for all generations

- (A) Uniformity
- (B) Conformity
- (C) Uniqueness
- (D) Obedience

5. Which statement is not listed as a detail in the passage?

Have you ever wondered why the whistle of a traveling, distant locomotive predicts its approach several yards before anyone actually sees it? Or why an oncoming ambulance's screaming siren is heard momentarily several feet before the ambulance comes into full view, before it passes you, and why its siren is still heard faintly well after the ambulance is out of sight?

What you are witnessing is a scientific phenomenon known as the Doppler Effect. What takes place is truly remarkable. In both of these instances, when the train or ambulance moves toward the sound waves in front of it, the sound waves are pulled closer together and have a higher frequency. In either instance, the listener positioned in front of the moving object hears a higher pitch. The ambulance and locomotive are progressively moving away from the sound waves behind them, causing the waves to be farther apart and to have a lower frequency. These fast-approaching modes of transportation distance themselves past the listener, who hears a lower pitch.

- (A) The oncoming sound waves have a higher pitch because of high frequency and closeness of waves.
- (B) The oncoming sound waves have a higher pitch because of low frequency and closeness of waves.
- (C) The whistling sound of the locomotive as it approaches and passes can be explained by the Doppler effect.
- (D) The high-pitched sound of the ambulance as it approaches and passes can be explained by the Doppler effect.

6. What is the purpose of lightning rods according to the passage?

Lightning Strikes

The old wives' tale of "Lightning never strikes twice" has been proven untrue time and time again.

Lightning forms from negative and positive charges within clouds and from the earth below. When these charges react with each other, the air between the cloud and the earth ionizes, which produces a lightning flash. Lightning is actually a series of multiple events consisting of a leader stroke of lightning, followed by as many as 40 smaller strokes of lightning. Being just split seconds apart, these strokes of lightning often reflect off the lining of the clouds.

Lightning rods that extend from above the roof to the ground protect buildings by forming a low resistance path for the lightning so that the lightning does not enter the building, but rather defuses as it penetrates the ground.

Some myths about lightning need to be explained. Lightning does strike tall buildings often, and during a particularly violent storm, a tall building may be hit by lightning several times. The safest place during a thunder and lightning storm is in a metal car or lying flat, face down, in the open, not under a tree as the myth suggests.

Many people believe that thunder and lightning are connected; however, this proves to be true only about 50% of the time, so if you're waiting for the clap of thunder, you're missing out on some exciting strokes of lightning!

Lightning causes injuries, deaths, and forest fires each year. However, some scientists reveal the positive aspects of lightning because it releases nitrogen into the atmosphere which the raindrops then deliver to earth to fertilize our soil.

- (A) Attract lightning to specific locations
 - (B) Protect buildings by drawing lightning away from them
 - (C) Increase the frequency of lightning strikes
 - (D) Store electrical energy from lightning strikes
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7. Not only the students but also the professor ____ stunned by the test results.

- (A) was
 - (B) were
 - (C) are
 - (D) be
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8. What is the definition of 'brittle'?

Glass

I wonder who first discovered glass. This commodity has been a part of civilization from the very beginning. Imagine a world without glass! How dark and dismal it would be. No windows, corrective lenses, telescopes, microscopes, cameras, sparkly drinking containers or mirrors. Life would not be the same without this wonderful discovery. Thank you, whoever found glass!

Glass is not an element, but a combination of several elements. It is a hard, brittle, transparent solid material composed mainly of silica, with additives to change the character of the glass. Common additives are soda, lime, lead, and boron. Each additive changes the properties of the final product. Soda and lime are the most common additives, accounting for about 90% of glass production. Adding lead increases reflectivity, causing the glass to "sparkle." The addition of boron changes the thermal and electrical properties of glass, allowing cookware that can be used in the oven without shattering.

- (A) Flexible and resilient
 - (B) Easily broken
 - (C) Hard and fragile
 - (D) Tough and sturdy
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9. Which statement is supported by the passage?

Over the last few decades, medical experts have changed their thinking on the health effects of some common foods and beverages. Higher-fat foods and some alcoholic beverages like red wine and beer, once viewed as top threats to a healthy lifestyle, are now seen by many as less harmful and even as having some health benefits. But there is perhaps no topic that the medical community has reversed its thinking on more often than coffee. Since long before the advent of modern medicine, public opinion regarding the health effects of coffee has been diverse and ever-changing. Opinion on coffee's health effects can be traced back several centuries. In the 1600s, doctors in England touted coffee as a cure for alcoholism, but some women complained that coffee was making their husbands impotent. They may have been correct, as caffeine is a diuretic and can irritate the prostate (dehydration and prostatitis can both lead to erectile dysfunction). In the late 1700s, coffeehouses began opening all over colonial America, where coffee was seen as a healthy stimulant that helped the colonists work longer hours. But by the early 1900s, public concern grew as coffee consumption was blamed for a variety of common ailments, such as nervousness, indigestion, and insomnia. In the 1970s, medical journals published studies that linked coffee consumption with high blood pressure and an increased risk of heart attacks. In 2001, a meta-study indicated that coffee was responsible for a 20% increase in risk for urinary tract cancer. But starting in 2007, to the surprise of many, meta-studies began to show positive health effects of coffee consumption. A 2007 study showed that coffee was viewed by many as "practically a health food." However, CNN also warned that given the long history of flip-flops on the health effects of coffee, medical and public opinion on coffee could easily turn negative again.

- (A) In the 2000s, studies showed negative health effects of coffee consumption.
 - (B) In the 1600s, some believed that coffee caused erectile dysfunction.
 - (C) In the late 1900s, public opinion on coffee shifted from positive to negative.
 - (D) In the 1800s, American colonists saw coffee as a healthy stimulant.
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10. In line 5, the word 'ancestry' is closest in meaning to

People of Hispanic origin were on the North American continent centuries before settlers arrived from Europe in the early 1600s and the thirteen colonies joined together to form the United States in the late 1700s. The first census of the new nation was conducted in 1790, and counted about four million people, most of whom were white. Of the white citizens, more than 80% traced their ancestry back to England. There were close to 700,000 slaves and about 60,000 "free Negroes". Only a few Native American Indians who paid taxes were included in the census count, but the total Native American population was probably about one million. By 1815, the population of the United States was 8.4 million. Over the next 100 years, the country took in about 35 million immigrants, with the greatest numbers coming in the late 1800s and early 1900s. In 1882, 40,000 Chinese arrived, and between 1900 and 1907, there were more than 30,000 Japanese immigrants. But by far, the largest numbers of the new immigrants were from central, eastern, and southern Europe. An enormous amount of racial and ethnic assimilation has taken place in the United States. In 1908, play-write Israel Zangwill first used the term "melting pot" to describe the concept of a place where many races melted in a crucible and re-formed to populate a new land. Some years during the first two decades of the 20th century, there were as many as one million new immigrants per year, an astonishing 1 percent of the total population of the United States. In 1921, however, the country began to limit immigration, and the Immigration Act of 1924 virtually closed the door. The total number of immigrants admitted per year dropped from as many as a million to only 150,000. A quota system was established that specified the number of immigrants that could come from each country. It heavily favored immigrants from northern and western Europe and severely limited everyone else. This system remained in effect until 1965, although after World War II, several exceptions were made to the quota system to allow in groups of refugees.

- (A) origins
- (B) inheritance
- (C) color
- (D) freedom