NEX Nursing Entrance Exam Study Guide

Section: NLN NEX Verbal Ability Exams • **Total Questions:** 10 • **Format:** Verified Q&A

1. Based on the passage, one could infer that

> *1.When e-cigarettes, more commonly known as vapes," first came on the market, they were touted by their makers as a far safer way to enjoy the pleasures of smoking. However, while it is true that vaping is less dangerous than cigarette smoking recent research has revealed that the use of e-cigarettes, especially among young people, poses serious health risks.*
> *2. Being "less dangerous" than cigarettes is hardly a stamp of approval for vapes. After all, according to the Centers for Disease Control and Prevention (CDC), long-term cigarette smoking kills half of all users. While e-cigarettes may not be quite this deadly, it is clear that addiction to nicotine -which, the CDC notes, is present in 99% of all vape products (2022a) - is unhealthy, furthermore, scientists have yet to fully learn or understand the long-term health effects of vaping.*
> *3. Of particular interest to health officials is the fact that vape use has reached troublesome proportions among young people, and there are specific health concerns for these younger users. According to the CDC, in 2022, 1 in 7 high school students and 1 in 30 middle school students reported that they had usedavape product in the last 30 days (2022b). These numbers are deeply troubling given the unique health consequences vape products can have on young people.*
> *4. Our brains don't finish developing until about the age of 25. According to the CDC (2022a), "Each time a new memory is created or a new skill is learned, stronger connections - or synapses -are built between brain cells. Young people's brains build synapses faster than adult brains. Nicotine changes the way these synapses are formed." These changes can affect processes like attention, learning, and impulse control. Furthermore, addiction to nicotine can lead to mood disorders, and nicotine can serve as a gateway drug to substances such as marijuana (which can also be delivered by vape), heroin, and cocaine. The CDC also reports that many young people are using nicotine to self-medicate, an unhealthy and ultimately ineffective way to deal with stress, anxiety, and depression. 5. Beyond these risks, scientists are still learning the other possible harmful effects of e-cigarettes. The CDC notes that some ingredients in the aerosol produced by vapes may be harmful to lungs, and we may see more of this damage as use becomes long-term. Some vapes have been known to explode or catch fire, gravely injuring their users.*

(A) vaping is not a problem for young people in middle school.

(B) vaping is more harmful to young people than to adults.

(C) vaping causes mental health illnesses.

(D) vaping may be more dangerous than cigarette smoking.

2. Allison and Honjo began their most recent collaborative research in the

> *1. In October 2018, James P. Allison and Tasuku Honjo were awarded the Nobel Prize in Physiology of Medicine for their groundbreaking efforts in inhibiting the impact of cancer in patients through immunotherapy. James P. Allison, 70-year-old immunologist and native Texan, works at the prestigious Anderson Cancer Center in Houston. Tasuku Honjo is a 76-year-old immunologist and native of Kyoto, Japan who currently leads a variety of important medical research efforts at Kyoto University. Their research efforts span several decades, in two extremely different national contexts, but their recent international collaborations have reignited the profession over the last ten years.*
> *2. Together, their cutting-edge research has helped make cancer immunology one of the most innovative branches in the field of medicine. Their current project, which focuses on mitigating negative immune regulation, has helped uncover new strategies for "inhibiting the brakes of our immune systems" through T-cell immunotherapy. Though cancer rates continue to decline throughout developed countries, it still remains the second leading cause of global mortality rates, contributing to millions of deaths each year. Thanks to their findings, many research initiatives, which had previously given up on the prospects of immunotherapy practices, are reinvesting hundreds of millions of dollars into an entirely new class of drugs that might help*

(A) 1970s

(B) 1980s

(C) 2000s

(D) 1990s

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3. We can conclude that radiation therapy is

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> *3. Cancerous tumors serve as some of the greatest antagonists within our immune systems, thwarting our body's ability to destroy foreign invaders. These cancerous tumors are particularly skilled at incapacitating our body's capacity to ward off malignant cells that spawn inside of us. Cancer, for reasons previously unknown to researchers, quickly excites our body's "molecular brakes “, which, in turn, lowers the effectiveness of our immune systems. For several decades, radiation therapy and standard chemotherapy were believed to be the only effectual approaches to mitigating the spread of cancer in the body. These classic therapies, however, are extremely harmful to human tissue, and they are often shadowed by toxic side effects. Cancer immunotherapy is therefore seen as a positive alternative that can reduce the likelihood of these crippling side effects. Cancer immunotherapy, in short, has become the more humane option for targeting our body's cancerous invaders.*
> *4. All of this, however, would not have been possible without the nearly-thirty-year research campaigns carried out, separately at first, by Allison and Honjo. In the 1990s, Allison began monitoring a protein known as CTLA-4. CTLA-4 is located in the membranes of active T-cells, a type of white blood cell, behaving like an off switch for these "soldiers" within our immune systems. Allison's initial work in the early 1990s focused on ways to interfere with this off-switch and encourage these soldiers to return to the body's war against cancer. Around the same time, Honjo had been targeting another off-switch known as PD-1. PD-1 is a biological protector that limits our T-cells to overexposure; it prevents our immune system's soldiers from entering too many battles against foreign invaders. PD-1 is the "general" of the wars in our immune system that ensures that our T-cells do not become too exhausted. Some cancers intentionally try to attack this general, shutting down its capacity to command T-cells.*
> *5. By the 2000s, Allison and Honjo's paradigm-shifting efforts had converged to find ways to (re)motivate the T-cell troops of our bodies through a new brand of cancer immunotherapy that targets both the effects CTLA-4 and PD-1. The result has been Nobel award-winning effort to conquer cancer through more amenable physiological measures.*
> *6. And the world should be thankful -Allison and Honjo's medical practices are now on the forefront of eliminating the negative effects of melanoma, colorectal cancer, lung cancer, bladder cancer, and liver cancer. While these are just a few sources of foreign invasion, easing their effects is one step in the right direction for the medical industry's larger war on cancer.*

(A) a new form of cancer treatment.

(B) more successful than immunotherapy.

(C) an older form of cancer treatment.

(D) more nonthreatening than immunotherapy.

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4. Based on how it is used in paragraph 4, synapses refer to the

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(A) emotional feelings we get when our body is exposed to nicotine.

(B) chemicals present in vapes that make them particularly addictive.

(C) electrical mechanisms that make a vape function properly.

(D) connections between brain cells when something new is learned.

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5. Which pair of words below represents synonyms?

(A) reverse-respect

(B) ostracize-exclude

(C) repudiate-accept

(D) reprimand-celebrate

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6. HeLa cells are considered immortal because

> *1. In 2010, author Rebecca Skloot published The Immortal Life of Henrietta Lacks, the story of a Black woman who died of cervical cancer in 1951. The book, an immediate bestseller, examines the roles of race, class, gender, and ethics in medical research and considers the Implications, both positive and negative, of Henrietta Lacks's remarkable but inadvertent role in some of the most significant medical advances of the twentieth century.*
> *2. In 1951, Lacks, a 30-year-old wife and mother of five, went to Johns Hopkins Hospital in Baltimore for treatment of cervical cancer. She was unable to pay for treatment and stayed in a segregated ward. During a procedure to place radium on her tumor, Lacks's doctor cut a sliver from the tumor, placed it in a petri dish, and handed it off to the lab assistant of George Gey, a Johns Hopkins cancer researcher. Sadly, cervical cancer is a particularly pernicious disease, and Henrietta succumbed in October 1951 after a brief but terribly painful struggle, leaving behind her young children.*
> *3. George Gey had been trying unsuccessfully to grow human cells in culture-until Henrietta's cells arrived, Labeled HeLa, Henrietta's cancer cells doubled in culture within 24 hours - and they never stopped. Hela cells multiplied so rapidly and persistently, Gey eventually began giving them away to other researchers, According to Skloot, HeLa became the "workhorse" of research labs everywhere. They were used to test the polio vaccine and in the development of HIV medications and cancer treatments. HeLa cells were central to the development ofthe HPV vaccine and were some of the first human cells sent into space to determine how zero gravity affected human cellular activity.*

(A) they didn't die even when exposed to toxins.

(B) they led to a cure for HIV and cancer.

(C) they multiplied every 24 hours in culture and never stopped.

(D) they can cure diseases when injected into patients.

7. Which sentence from the passage states the main idea?

> *1. Forty years ago, a person diagnosed with type 1 diabetes (T1D) would have found their life altered considerably. T1D frequently begins to manifest in childhood but can be diagnosed at any age. However, thanks to recent advances, managing this chronic condition now comes with conveniences that allow for less worry and fewer challenges for people who live with T1D.*
> *2. People with T1D must be attentive to their food intake, carefully monitor their blood glucose levels, and take regular doses of insulin - tasks that often make people feel alienated from their friends who are able to eat what they want without worry. If someone with T1D takes too much insulin for their food, they can experience hypoglycemia, a sudden drop in blood sugar, leading to debilitating symptoms such as headache, sweating, shakiness, and even fainting. But if they don't take enough insulin, they will experience hyperglycemia which causes symptoms such as excessive thirst, frequent urination, lethargy, headaches, and blurred vision.*
> *3. Recently, however, advances in blood glucose monitoring and insulin delivery have simplified disease management for many people with diabetes. Roughly 64% of current patients with T1D in the US use an insulin pump for consistent accurate delivery of insulin rather than relying on daily insulin injections (Smith & Harris, 2018). Insulin pumps generally contain an insulin reservoir and a computer chip that monitor insulin delivery through a cannula inserted under the patient's skin, usually on the lower part of the stomach. While the cannula site must be changed every few days, the pump frees the individual from needing frequent injections and delivers insulin more consistently than injections.*
> *4. Additionally, patients can now also use a continuous glucose monitor (CGM) to promote better regulation of blood sugar. CGMs use a sensor inserted under the skin to transmit blood glucose information to a smartphone app or even directly to an insulin pump. Patients can then use an app to monitor their insulin intake and blood sugar at any given time. Furthermore, the app can alert the patient to changes in blood sugar that could lead to dangerous reactions. Patients and their caregivers can use the information stored on the app to adjust diet and insulin delivery to promote better overall health (Wong, 2023).*
> *5. Perhaps the most exciting recent development in diabetes management is that of the hybrid, dosed-loop system, or artificial pancreas. In 2016, the FDA approved the first of these devices, which combine glucose monitoring and insulin delivery in one automated system (Smith & Harris, 2018). These systems, now commercially available, allow patients with T1D a level of ease of management that enables them to go about daily tasks without the need to carry kits containing syringes, vials, finger prick devices, and test strips. 6. While a cure for T1D remains a goal of researchers, consistent improvements in patient care and management have vastly improved life for many patients living with T1D. While patients wait for a cure, modern medical technology now offers them a vastly improved quality of life.*

(A) Perhaps the most exciting recent development in diabetes management is that of the hybrid closed-loop system, or artificial pancreas.

(B) However, thanks to recent advances, managing this chronic condition now comes with conveniences that allow for less worry and fewer challenges for people who live with T1D.

(C) Roughly 64% of current patients with T1D in the U.S. use an insulin pump for consistent, accurate delivery of insulin rather than relying on daily insulin injections.

(D) Forty years ago, a person diagnosed with type 1 diabetes (T1D) would have found their life altered considerably.

8. Which pair of words represents synonyms?

(A) perceptive - obtuse

(B) conscientious - careless

(C) complacent - agreeable

(D) submissive - aggressive

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9. The best title for this article is

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(A) Allison and Honjo Fight T-Cells.

(B) Nobel Prize Winners Fight Cancer.

(C) Pharmacology and Cancer Treatments.

(D) CTLA-4 and PD-1: Two Deadly Types of Cancer.

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10. The reporter ended the press conference with a crass remark. Crass means

(A) philosophical

(B) witty

(C) insensitive

(D) sophisticated