The burgeoning field of quantum computing has garnered significant attention due to its potential to revolutionize various sectors, from cryptography to material science. Quantum computers leverage the principles of quantum mechanics, utilizing qubits that can exist simultaneously in multiple states, unlike classical bits which are either 0 or 1. This unique property, known as superposition, coupled with entanglement, allows quantum computers to perform complex calculations at unprecedented speeds.

Despite its promise, the path to practical quantum computing is fraught with challenges. One of the foremost obstacles is qubit coherence. Qubits are highly susceptible to environmental noise, which can cause decoherence, disrupting their quantum state and leading to errors in computation. Researchers are exploring various approaches to mitigate this, such as error-correcting codes and isolating qubits from environmental interference.

Another significant hurdle is scalability. Current quantum computers operate with a relatively small number of qubits. Scaling up to a quantum computer capable of outperforming classical supercomputers requires robust systems that can handle thousands, if not millions, of qubits. This necessitates advancements in quantum hardware and the development of sophisticated algorithms to manage and optimize qubit interactions

The potential applications of quantum computing are vast. In cryptography, for instance, quantum computers could break current encryption methods, necessitating the development of quantum-resistant algorithms. In material science, quantum simulations could lead to the discovery of new materials with novel properties, revolutionizing industries from pharmaceuticals to energy

However, the realization of these applications depends on overcoming the technical challenges that currently impede progress. The global race to achieve quantum supremacy—where a quantum computer can solve a problem faster than the best classical computers—reflects the high stakes involved. Countries and corporations are investing heavily in research and development, aiming to be at the forefront of this technological frontier

- 1. Which inference can be drawn from the passage regarding the susceptibility of qubits to environmental noise?
- o A. Qubits can maintain their quantum state indefinitely without any interference.
- B. Environmental noise has no significant impact on qubits.
- C. Decoherence caused by environmental noise is a major challenge in quantum computing.
- o D. Isolating qubits from environmental noise completely eliminates errors in computation.
- 2. What is the conclusion drawn from the sentence: "The global race to achieve quantum supremacy reflects the high stakes involved"?
- A. Only a few countries are interested in quantum computing research.
- B. Quantum supremacy is the ultimate goal of all technological research.
- C. Achieving quantum supremacy has significant implications and benefits, driving intense global competition.
- D. The global race is not significant in the context of technological advancements.
- 3. The author would most likely agree with all the following statements except:
- A. Quantum computing has the potential to outperform classical supercomputers.



- o B. The development of quantum-resistant algorithms is unnecessary.
- o C. Advancements in quantum hardware are essential for scaling up quantum computers.
- o D. Overcoming qubit coherence and scalability issues is critical for practical quantum computing.
- 4. Which of the following scenarios is most parallel to the challenges faced in scaling up quantum computers?
- o A. Developing a new type of fuel that can power cars more efficiently.
- o B. Building a skyscraper that can withstand earthquakes by using innovative construction materials.
- o C. Creating a software that can run on multiple operating systems without any modifications
- . O. Designing a new transportation system that requires an entirely new infrastructure to be effective.
- 5. Which of the following would most strengthen the author's argument about the potential impact of quantum computing on cryptography?
- o A. Evidence that current encryption methods are already vulnerable to classical supercomputers
- . O B. Studies showing that quantum computers have successfully broken existing encryption algorithms.
- o C. Research indicating that quantum-resistant algorithms are currently under development.
- o D. Data demonstrating that quantum computers are significantly slower than expected.

A rocket attack on a football ground in Majdal Shams in the Golan Heights, in which 12 young people were killed, has taken West Asia to the brink of a wider war. Israel and the U.S. have blamed Hezbollah, Lebanon's powerful Shia militia that is backed by Iran, for the attack. Hezbollah, which initially claimed rocket strikes on an Israeli military outpost in the nearby Mount Hermon, later denied any role in this incident. But Israel has not bought Hezbollah's claims and is preparing its response. From October 7, 2023, the day Hamas carried out a cross-border attack in Israel, killing an estimated 1,200 people, a slow-burning war has been raging on Israel's northern border with Hezbollah. When Israel launched the Gaza war following the Hamas attack, Hezbollah began rocket attacks from southern Lebanon, its stronghold, mostly targeting Israel's military outposts in the occupied Shebaa Farms or the Upper Galilee region of northern Israel. Hezbollah's attacks forced some 60,000 Israelis to flee from Upper Galilee, with Israeli forces carrying out air strikes inside Lebanon in retaliation. Hezbollah claimed that it was fighting Israel "in solidarity" with the Palestinians, while Israel's leadership said none of Hezbollah's attacks would go unpunished. However, both sides were, until recently, cautious not to let the conflict spiral into an all-out war. But the Majdal Shams attack seems to have broken those unwritten rules of the war.

Hezbollah's claim that it was not involved in the attack cannot be taken for granted. It is possible that the group targeted IDF outposts in the Golan Heights, under Israel's illegal occupation since 1967, and the rocket fell on the football field, but still the responsibility lies with the militia. Israel's hands are not clean either. The IDF, whose Gaza campaign has killed thousands of Palestinian civilians, has also carried out strikes in Lebanon's civilian neighbourhoods. Hezbollah and Israel last fought an all-out war in 2006, and it did not end well for the Jewish state. Hezbollah also takes credit in forcing Israel to withdraw from southern Lebanon after 18 years of occupation. And since 2006, Hezbollah has built a stronger army and a huge stockpile of weapons. A war could spiral out of control with a high risk of Iran's involvement. Hezbollah's rocket attacks in recent months have only provoked Israel; and Israeli strikes on Lebanon have done little in deterring the group. This cycle of violence is self-defeatist and there will be peace only if both parties reset the current hostility and calm the borders. The obvious first step is to end the war which triggered this regional crisis — the war on Gaza.

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- 6. The author would most likely agree with which of the following statements?
- A. Hezbollah's claim of non-involvement in the attack on Majdal Shams is credible.
- o B. Israel's military actions in Lebanon have been completely justified
- . O. C. Both Hezbollah and Israel need to take steps to de-escalate the conflict
- . O D. The root cause of the regional crisis is unrelated to the Gaza war.
- 7. Identify the potential flaw in the author's reasoning:
- A. The author assumes that Hezbollah's stronger military since 2006 guarantees its victory
- . o B. The author overlooks the possibility that external parties might be responsible for the rocket attack
- . o C. The author fails to consider the historical context of the Israeli-Palestinian conflict
- . O D. The author assumes that ending the Gaza war will automatically lead to regional peace.
- 8. Which scenario is most parallel to the author's reasoning regarding the Majdal Shams attack and the ensuing conflict?
- A. A long-standing feud between two families escalating after an accidental death at a family gathering.
- o B. Two rival companies engaging in a series of aggressive business tactics following a controversial merger.
- o C. Two neighboring countries experiencing sporadic skirmishes after one accuses the other of espionage.
- o D. A sports team retaliating against another team after an unintended foul during a match.
- 9. What course of action does the author suggest to address the regional crisis?
- A. Immediate military intervention by international forces.
- o B. Diplomatic negotiations between Hezbollah and Israel without any preconditions.
- C. Ending the war on Gaza as a preliminary step to calm tensions.
- D. Increased sanctions on Iran to curb its support for Hezbollah.
- 10. Which of the following, if true, would most strengthen the author's argument that the Majdal Shams attack has significantly escalated the conflict?
- A. Evidence that the rocket attack on Majdal Shams was planned by an unrelated third party
- . B. Confirmation that Hezbollah's leadership was unaware of the rocket attack on Majdal Shams.
- C. Reports that Israel has mobilized additional troops to the northern border following the Majdal Shams attack.
- D. Diplomatic efforts between Israel and Hezbollah were showing progress before the Majdal Shams attack.

According to the National Health Profile 2023, the country has made significant strides in reducing infant mortality rates and improving vaccination coverage. However, these achievements are overshadowed by persistent issues such as inadequate infrastructure, shortage of medical professionals, and unequal access to healthcare services across different regions. Passage:

The recent report on Indian healthcare highlights a complex web of challenges and opportunities.

According to the National Health Profile 2023, the country has made significant strides in reducing infant mortality rates and improving vaccination coverage. However, these achievements are overshadowed by persistent issues such as inadequate infrastructure, shortage of medical professionals, and unequal access to healthcare services

The report also underscores the growing burden of non-communicable diseases (NCDs) such as diabetes, hypertension, and cardiovascular diseases. These conditions, traditionally associated with urban lifestyles, are now increasingly prevalent in rural areas as well. The rise in NCDs is partly attributed to changes in dietary habits, increased stress levels, and lack of physical activity across different regions.

To address these issues, the report recommends a multifaceted approach. Strengthening primary healthcare infrastructure in rural areas, incentivizing medical professionals to work in underserved regions, and promoting public health awareness campaigns are crucial steps. Additionally, leveraging technology through telemedicine and digital health platforms can bridge the gap in healthcare access and provide timely medical advice to remote areas. Despite these challenges, the report remains optimistic about the potential for improvement. It highlights successful initiatives such as the Ayushman Bharat scheme, which aims to provide health insurance to the poor and vulnerable sections of society. With sustained efforts and strategic investments, India's healthcare system can overcome these hurdles and ensure equitable healthcare for all its citizens.

16. Which piece of evidence from the passage supports the argument that there is a disparity in healthcare access between urban and rural areas?

- A. The rise in non-communicable diseases in rural areas.
- B. The migration of healthcare professionals to urban centers.
- C. The success of the Ayushman Bharat scheme.
- D. Improved vaccination coverage nationwide.
- 17. The author would most likely agree with which of the following statements?
- A. Urban healthcare facilities are as under-resourced as rural primary health centers.
- B. Non-communicable diseases are exclusively an urban issue.
- C. Telemedicine can help mitigate the urban-rural healthcare divide.
- D. The Ayushman Bharat scheme has no impact on healthcare access.

18. Identify the flawed reasoning in the argument that the increase innon-communicable diseases is solely due to urban lifestyles.

- A. It ignores the role of genetics in the prevalence of non-communicable diseases.
- B. It overlooks the improvement in vaccination coverage.
- C. It fails to consider the changes in dietary habits and stress levels in rural areas.
- D. It disregards the impact of the Ayushman Bharat scheme on health insurance.

19. Which of the following, if true, would most weaken the argument that urban healthcare facilities are significantly better than rural ones?

A. Reports indicating that urban hospitals are facing a severe shortage of medical staff.

- B. Data showing that rural primary health centers have seen an increase in funding.
- C. Studies suggesting that non-communicable diseases are on the rise in urban areas.
- D. Evidence that vaccination coverage has improved nationwide.

20. Describe the relationship between the bold-faced statements in the passage: "Urban centers are equipped with state-of-the-art medical facilities and specialists" and "This urban-rural divide is exacerbated by the migration of healthcare professionals to cities."

- A. The first statement provides a solution that counters the problem presented in the second statement.
- B. The second statement offers a reason that supports the condition described in the first statement.
- C. Both statements present independent issues without any direct connection.
- D. The first statement refutes the claim made in the second statement.

Passage:

These critiques ignore the sense of duty that human beings everywhere feel to the places and people that raised us. Americans are no exception. And dismissing the intense debate about whether America is a creedal nation versus a specific place of specific people who share land, history and culture misses a chance to understand something important about the MAGA movement's appeal.

People who speak of America as an idea tend to have a global outlook, arguing for more immigration, free trade, and a robust role for the United States around the world. Those who emphasize that it's also a homeland see the country's resources as being squandered on outsiders, while the needs of citizens are brushed aside.

There is so much that is troubling about Mr. Vance and the MAGA movement in general — election denialism and support for insurrections come to mind — but this message resonates, especially among the working class. I've spoken with American workers who compete with undocumented immigrants for low-wage jobs in home construction and landscaping and they speak of the downside of the notion that America is an idea —anybody can walk across the border to claim it. Any soldier in an ill-fated war that tried to export America's self-evident truths to foreign lands may understandably prefer to think about the country as a homeland rather than a set of principles that must be defended everywhere.

There's another reason that people might be attracted to the idea of an American homeland. The modern world can be disorienting, as people lose their vital ties to the places they are from. The rise of cellphones, social media, and globalized commerce has created a sense of "placelessness" that often robs people of the rootedness that human beings need to flourish, along with the motivation to live "purposeful lives of self-government and civic engagement," according to Wilfred McClay and Ted McAllister, editors of the anthology "Why Place Matters: Geography, Identity and Civic Life in Modern America." The impulse to reclaim a sense of place in the world could be part of why nationalism is on the rise in many countries.

I can understand the risks of talking about the country as an abstract idea. Being from somewhere specific obliges us to grapple with the problems of the people who live there. Ideas, on the other hand, demand little. They are universal and portable, perfect for remote workers moving to Portugal on a golden visa, but less useful for those who have never left their hometowns.

- 11. If the information in the passage is correct, which of the following must necessarily be true?
- A. Nationalism is purely a reaction to globalization and technological advancements.
- B. People who view America as a homeland are more likely to oppose immigration.
- C. Viewing a country as an idea leads to a stronger sense of national identity.
- D. The appeal of the MAGA movement is limited to the working class.



- 12. The author would most likely disagree with which of the following statements?
- A. A sense of place is unnecessary for civic engagement.
- B. The MAGA movement's appeal is rooted in a sense of duty to one's homeland.
- C. The modern world has contributed to a sense of placelessness.
- D. Immigration and free trade are components of a global outlook.
- 13. Which of the following, if true, would most weaken the argument that viewing America as a homeland leads to opposition to immigration?
- A. Historical data shows that countries with a strong sense of homeland are more welcoming to immigrants.
- B. Surveys indicate that people who view America as a homeland are also supportive of certain immigration policies.
- C. Studies reveal that economic conditions, not cultural views, are the primary driver of opposition to immigration.
- D. Data indicates that immigration levels have remained constant despite the rise of the MAGA movement.
- 14. What assumption does the author make when he says that "being from somewhere specific obliges us to grapple with the problems of the people who live there"?
- A. People are generally unwilling to address the problems of their community.
- B. Addressing local problems is more important than addressing global issues.
- C. A sense of belonging to a specific place leads to greater accountability and responsibility.
- D. The problems of a specific place are more significant than universal ideas.
- 15. Which of the following represents a paradox in the passage?
- A. The rise of nationalism despite the increase in global interconnectedness.
- B. The simultaneous support for free trade and opposition to immigration.
- C. The appeal of the MAGA movement among the working class and the wealthy elite.
- D. The coexistence of a sense of duty to one's homeland and support for universal ideas.

The burgeoning complexities within the realm of Indian healthcare have been meticulously chronicled in the National Health Profile 2023, underscoring a juxtaposition of commendable advancements and enduring impediments. Notable strides in reducing infant mortality rates and enhancing vaccination coverage represent significant milestones. Nonetheless, these achievements are overshadowed by persistent infrastructural inadequacies, a dearth of medical professionals, and pronounced disparities in healthcare access across diverse regions. A critical focal point is the stark dichotomy in healthcare accessibility between urban and rural locales. Urban centers boast state-of-the-art medical facilities and an abundance of specialists, whereas rural areas often subsist on under-resourced primary health centers. This urban-rural divide is further exacerbated by the migration of healthcare professionals to metropolitan areas in pursuit of superior opportunities and working conditions, leaving rural regions bereft of essential medical expertise. Compounding these issues is the burgeoning prevalence of non-communicable diseases (NCDs) such as diabetes, hypertension, and cardiovascular ailments. Traditionally associated with urban lifestyles, these maladies are now increasingly pervasive in rural areas as well. This shift is attributable to dietary

transformations, escalated stress levels, and a pronounced decline in physical activity, thereby reflecting broader socioeconomic transitions. The report advocates for a multifaceted approach to ameliorate these challenges. Strengthening primary healthcare infrastructure in rural areas, incentivizing medical professionals to serve in underserved regions, and propagating public health awareness campaigns are pivotal measures. Furthermore, leveraging technology through tele medicine and digital health platforms can bridge the accessibility chasm, ensuring timely medical intervention in remote areas. Despite the formidable obstacles, the report exudes a cautiously optimistic tone, highlighting successful initiatives such as the Ayushman Bharat scheme. This program endeavors to provide health insurance to the impoverished and vulnerable demographics, marking a significant step towards universal healthcare. With sustained effort and strategic investments, the prospect of an equitable and resilient healthcare system in India remains within reach.

- 21. Which piece of evidence from the passage supports the argument that there is a disparity in healthcare access between urban and rural areas?
- A. The rise in non-communicable diseases in rural areas.
- B. The migration of healthcare professionals to urban centers.
- C. The success of the Ayushman Bharat scheme.
- D. Improved vaccination coverage nationwide.
- 22. The author would most likely agree with which of the following statements?
- A. Economic development should be prioritized over environmental conservation.
- B. Non-communicable diseases are exclusively an urban issue.
- C. Sustainable practices in agriculture and industry are essential for long-term ecological health.
- D. The Ayushman Bharat scheme has no impact on healthcare access.
- 23. Which of the following will most effectively implement the author's recommendations?
- A. Governments imposing strict regulations without consulting local communities.
- B. Corporations increasing their industrial output to boost the economy.
- C. Schools and universities incorporating comprehensive ecological education into their curricula.
- D. International organizations funding large-scale deforestation projects.
- 24. From the passage, it can be inferred that:
- A. Human activities have no significant impact on natural habitats.
- B. Local community involvement is unnecessary for successful conservation.
- C. There is a direct link between deforestation and changes in regional weather patterns.
- D. Ecological research has minimal influence on conservation strategies.



