

READING COMPREHENSION

Directions (1-8): Read the following passage and answer the given questions.

The proposed 25% tariff on semiconductors by US President Donald Trump is unlikely to affect India's semiconductor companies, industry players and experts said, citing two key reasons. First, India's semiconductor ecosystem is still in its early stages, and the country does not currently export chips. Second, even as India develops its chip manufacturing and assembly ecosystem in the coming years, it will primarily operate under a "chip manufacturing - as - a - service" model. This means chips produced in India will cater to global clients, not just the US. At present, five semiconductor projects are underway in India, including an assembly, testing, marking, and packaging (ATMP)

unit by Micron, a fabrication and OSAT unit by the Tata Group, and OSAT units by Kaynes and CG Power. Although Indian semiconductor firms receive orders from US clients, experts believe the proposed tariffs — still under discussion — will not cause immediate disruptions.

<p>Moreover, the US will take time to build its domestic chip manufacturing capabilities, they noted. Experts said that India's semiconductor industry must expand its customer base beyond the US to maintain a strong business. With India's semiconductor demand projected to rise, the domestic market itself presents significant opportunities. "There is no short-term burden on India. In the long run, some impact could be seen on India's own branded chip products once companies reach the export stage — provided US tariffs remain," said Ashok Chandak, president of the India Electronics and Semiconductor Association (IESA). Chandak added that imposing tariffs on semiconductors could disrupt global supply chains, ultimately affecting US companies and consumers due to the challenges of ramping up</p>	<p>domestic production overnight. Echoing this view, Satya Gupta, president of the VLSI Society of India, noted that trade restrictions between countries are detrimental to the global semiconductor industry."Many large fabless semiconductor companies are based in the US, and a significant portion of their revenue comes from Asia.</p>
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If Asian countries respond with tariffs, it could impact their business and raise the bill of materials (BOM) costs for products like mobile phones worldwide," he explained. India's semiconductor manufacturing is expected to operate primarily under a contract manufacturing model, meaning chip ownership will remain with companies from the US, Europe, Japan, and other regions. As a result, India is unlikely to face immediate **repercussions**. Notably, major US fabless companies such as Qualcomm, AMD, and Nvidia count China among their largest markets, reinforcing the global interdependence of the semiconductor industry. Meanwhile, Micron, a US-based firm, is set to produce its first India-assembled chip this year. If exporting to the US becomes costlier, experts suggest the company could

explore alternative export markets, particularly for its memory chips. According to IESA, India's semiconductor market is projected to grow from \$52 billion (₹4.5 lakh crore) in 2024 to \$103.4 billion (₹9 lakh crore) by 2030.

Q1. Which of the following statements best explains the contract manufacturing model as discussed in the passage?

- (I) In the **contract manufacturing model**, chip ownership remains with external companies
- (II) The **contract manufacturing model** primarily serves foreign clients by producing chips according to their designs. In this model the rights of the chip are not with the country which manufactures them
- (III) The **contract manufacturing model** primarily serves domestic clients by making chips cheaper and reliable. Moreover the company manufacturing them owns all the rights of the chip

- (a) Only (I) and (III) are correct.
- (b) Only (II) and (III) are correct.
- (c) Only (I) and (II) are correct.
- (d) All (I), (II), and (III) are correct.
- (e) Only (II) is correct.

Q2. A US-based fabless semiconductor company is considering moving its manufacturing orders from India due to newly imposed tariffs. As an Indian semiconductor firm, what would be the most immediate and practical response?

(a) Completely stop working with US-based clients.

(b) Find alternative markets to reduce dependence on US orders.

(c) Shift production to a different country to avoid tariffs.

(d) Reduce product quality to lower manufacturing costs.

(e) Wait for the US to lift the tariffs without making any changes.

Q3. Which of the following statements best captures the implications of India's semiconductor manufacturing model as described in the passage?

- (I)** Given that India predominantly operates under a contract manufacturing framework, it lacks exclusive intellectual property ownership over the semiconductors it fabricates.
- (II)** India's semiconductor industry remains impervious to geopolitical trade frictions, as its production is confined solely to domestic consumption.
- (III)** The worldwide semiconductor sector is profoundly interwoven, as evidenced by the substantial dependence of leading US-based fabless semiconductor corporations on markets such as China.

- (a) Only (I) and (III) are correct.
- (b) Only (II) and (III) are correct.
- (c) Only (I) and (II) are correct.
- (d) All (I), (II), and (III) are correct.
- (e) Only (I) is correct.

Q4. Drawing upon the passage, which of the following deductions can be made concerning the repercussions of the proposed US tariffs on India's semiconductor industry?

(I) India's semiconductor domain will remain largely unscathed in the short term, as it does not presently engage in chip exports.

(II) The enduring ramifications of US-imposed tariffs may manifest once India ventures into the export of proprietary semiconductor products.

(III) India's semiconductor industry is destined for an inevitable downturn due to the overwhelming fiscal strain induced by US trade barriers.

- (a) Only (I) and (II) are correct.
- (b) Only (II) and (III) are correct.
- (c) Only (I) and (III) are correct.
- (d) All (I), (II), and (III) are correct.
- (e) Only (I) is correct.

Q5. What can be inferred about the potential global consequences of the US imposing a 25% tariff on semiconductors?

(I) Should Asian economies reciprocate with countermeasures, it may engender adverse repercussions for US-based semiconductor enterprises.

(II) The United States will expeditiously cultivate an autonomous semiconductor manufacturing infrastructure, thereby diminishing its reliance on external markets.

(III) The escalating cost of semiconductor production may precipitate an upsurge in the global pricing of mobile devices and electronic commodities.

- (a) Only (I) and (II) are correct.
- (b) Only (II) and (III) are correct.
- (c) Only (I) and (III) are correct.
- (d) All (I), (II), and (III) are correct.
- (e) Only (I) is correct.

Q6. Determine whether the following statements are True or False based on the passage:

(I) The global semiconductor industry is structured in a way that allows any single country to dominate the market without being affected by external trade policies.

(II) The imposition of tariffs on semiconductors by the US could have a cascading effect, potentially leading to retaliatory measures by other countries, thereby increasing production costs globally.

(III) India's semiconductor industry, while in its early stages, is already self-reliant and does not require collaboration with multinational firms to sustain growth.

- (a) False – True – False**
- (b) True – False – True**
- (c) False – False – True**
- (d) True – True – False**
- (e) False – True – True**

As a result, India is unlikely to face immediate **repercussions**.

Q7. Identify the most suitable synonym for the word "repercussions" as used in the passage:

(I) Vindication

(II) Ramifications

(III) Concessions

(a) **Only I**

(b) **Only II**

(c) **Only III**

(d) **Both I and II**

(e) **Both II and III**

Q8. Determine whether the following statements are True or False based on the given passage:

(I) Despite the imposition of proposed US tariffs, India's semiconductor industry will remain entirely unaffected due to its exclusive reliance on domestic demand.

(II) The success of India's semiconductor industry is contingent on its ability to expand beyond a single-market dependency, ensuring resilience against geopolitical trade fluctuations.

(III) If the US imposes tariffs, the most immediate consequence will be a complete halt in semiconductor trade between India and the US, leading to severe disruptions in India's manufacturing sector.

(a) True – True – False

(b) False – True – True

(c) True – False – False

(d) False – True – False

(e) False – False – True

Direction (21-26): Read the following passage carefully and answer the questions given below.

Microsoft's announcement of its Majorana 1 quantum chip marks a historic moment in the field of quantum computing. Unlike Google's and IBM's quantum processors, which focus on increasing the number of qubits, Microsoft is taking a different approach by _____ **(A)** _____ stability and scalability. This is important for the future of quantum computing as this field deals with a major limitation — correcting errors. Simply put, digital computers use binary computing (bits), meaning they process data in strict 1s and 0s. In other words, any calculation undertaken on a digital computer can be done in only one set of numbers at a time. Quantum computers, on the other hand, use qubits,

which can exist in multiple states at once, potentially making them **exponentially** more powerful for certain tasks. This is because there's no such limitation of sequential computing and several tasks can be done simultaneously.

At the core of Microsoft's innovation is a new type of qubit, the building block of quantum computers. Majorana 1 uses a special kind of particle that is believed to make qubits more reliable. In simple terms, this could mean fewer errors and a much greater potential to scale quantum computers to the size needed for real-world applications. Google's recent progress has focused on increasing qubit count and reducing errors through improved hardware and error correction techniques. Microsoft, however, aims to solve the problem at its root by developing qubits that are naturally more stable. While this sounds promising, Microsoft has yet to provide performance data, so it remains to be seen whether this approach will succeed. Quantum computing is not just a futuristic idea as it has the potential to revolutionise

industries by solving problems that are impossible for traditional computers. From designing new materials to discovering life-saving drugs, the impact could be enormous.

Microsoft believes that with enough stable qubits, quantum computers could help tackle complex global challenges like reducing microplastic pollution or creating self-repairing materials for construction and healthcare. Further, quantum computers could vastly improve artificial intelligence (AI), accelerating machine learning processes and making AI models more efficient. Microsoft envisions a future where AI and quantum computing work together, allowing researchers to develop innovative solutions in record time. The combination of these two technologies could redefine how industries approach problem-solving. One big area of concern though is that the power of quantum computing poses serious security risks because it could easily break through the encryption technology currently in use to protect data, including national secrets.

Quantum computing is not a replacement for traditional computing. Instead, it will likely work alongside existing technologies to solve specific, highly complex problems.

Traditional processors and graphics processing units will continue to dominate everyday computing needs, while quantum computers will be reserved for specialised, high-impact applications. While the potential is enormous, quantum computing is still in its early days, and without real-world results it's too early to declare a winner in the quantum race. Microsoft estimates that a useful quantum computer could be built between 2027 and 2029. Whether its unique approach will lead to a breakthrough remains uncertain, but one thing is clear: the competition to build the first practical quantum computer is heating up, and each advancement brings us closer to a future where quantum computing could bring about a major transformation. The coming years will be **crucial** in

determining which approach — error-corrected qubits or inherently stable qubits — will prove most effective.

Unlike Google's and IBM's quantum processors, which focus on increasing the number of qubits, Microsoft is taking a different approach by _____ **(A)** _____ stability and scalability.

Question 21:

Choose the most suitable phrase to fill the given **blank (A)** to make the sentence grammatically and contextually correct.

I. prioritising

II. neglecting

III. undermining

(a) Only II

(b) Both II and III

(c) Only I

(d) Both I and III

(e) All I, II and III

Question 22:

Which of the following is the “**TRUE**” statement based on the given passage?

- I. Microsoft’s Majorana 1 quantum chip focuses on increasing the number of qubits.
- II. Google and IBM’s quantum processors prioritize increasing the number of qubits.
- III. Quantum computing is anticipated to completely take over traditional computing.

- (a) Only III
- (b) Both I and II
- (c) Both II and III
- (d) Only II
- (e) All I, II and III

Question 23:

Based on the passage, which of the following statements most accurately reflects the potential of quantum computing?

- (a) Quantum computing will replace traditional computing in everyday applications.
- (b) Quantum computing has the potential to solve problems that are impossible for traditional computers.
- (c) Quantum computing is irrelevant to industries like healthcare and AI.
- (d) Quantum computing poses no security risks to current encryption technologies.

(e) Quantum computing is already widely used in real-world applications.

Question 24:

What does the passage suggest about Microsoft's approach to quantum computing?

- I. With enough stable qubits, Microsoft believes quantum computers could address global challenges.
- II. Microsoft has provided performance data proving the success of its approach.
- III. Microsoft's approach focuses on solving the problem of error correction at its root.

- (a) Only I
- (b) Both II and III
- (c) Both I and III
- (d) Only II
- (e) All I, II and III

Quantum computers, on the other hand, use qubits, which can exist in multiple states at once, potentially making them **exponentially** more powerful for certain tasks.

Question 25:

Which of the following options can be the appropriate **Synonym(s)** of the word “**Exponentially**”, as used in the above passage?

- I. extensively
- II. gradually
- III. steadily

- (a) Both I and III
- (b) Only II
- (c) Both I and II
- (d) Only III
- (e) Only I

The coming years will be **crucial** in determining which approach — error-corrected qubits or inherently stable qubits — will prove most effective.

Question 26:

Which of the following options can be the appropriate **Antonym(s)** of the word '**crucial**', as used in the above passage?

- I. splendid
- II. trivial
- III. decisive

- (a) Only I
- (b) Both I and II
- (c) Only II
- (d) Both II and III
- (e) All I, II and III