

MANTHAN

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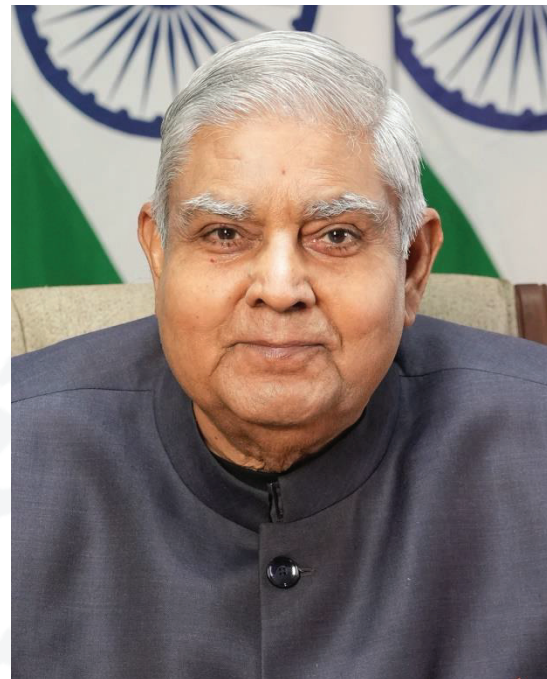
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1. Jagdeep Dhankhar becomes 3rd vice president to resign mid-term

- Jagdeep Dhankhar officially resigned from the post of vice president.
- The Vice President submitted his resignation to President Droupadi Murmu, citing health concerns.
- With this abrupt resignation, Dhankhar is now the third vice president to resign from office before completing his term.

Which other Vice President's have resigned mid-term?

- The first Vice President of India to resign before completing their term was VV Giri. VV Giri took over as acting president due to the death of Zakir Hussain in May 1969.
- On July 20, 1969, Giri stepped down from the post of VP in order to contest the presidential election as an independent candidate.
- After VV Giri, Ramaswamy Venkataraman became the second vice president to resign from his post before completing his term.
- Venkataraman resigned in 1987 after he was chosen as the Congress party's presidential nominee to succeed President Giani Zail Singh.
- Jagdeep Dhankhar became the third vice president to step down from the post before the end of term. However, both Giri and Venkataraman successfully transitioned from Vice Presidents to Presidents.



Jagdeep Dhankhar resigns

- Jagdeep Dhankhar was elected as the Vice President of India in 2022 after he secured a historic win in the elections.
- Before his tenure as the Vice President, Dhankhar served as the Governor of West Bengal from 2019 to 2022.
- On July 21, 2025, Dhankhar invoked Article 67(a) of the Constitution, which allows the Vice President to step down from his post through a written notice to the President, and announced his resignation.

Election and Removal Process of the Vice President of India

Election of the Vice President of India

Constitutional Provisions

- **Article 63:** There shall be a Vice President of India.
- **Article 66:** Deals with the election of the Vice President.

Eligibility Criteria

To be elected Vice President, a person must:

- Be a citizen of India.

- Be at least 35 years old.
- Be qualified for election as a member of the Rajya Sabha (not Lok Sabha).
- Not hold any office of profit under the Government of India or any state.

Electoral College

Consists of

- All members of both Houses of Parliament (Lok Sabha + Rajya Sabha), including nominated members.
- **Excludes:** Members of State Legislative Assemblies do not vote in this election.

Election Process

- **Conducted by:** Election Commission of India.

Voting system

- Proportional Representation by means of a Single Transferable Vote (STV).
- Voting is done by secret ballot.

Removal of the Vice President of India

Constitutional Provision

- **Article 67(b):** The Vice President can be removed from office by a resolution of the Rajya Sabha.

Removal Procedure

Initiated in Rajya Sabha

- A resolution must be passed by a majority of all the then members of the Rajya Sabha (absolute majority).

Approval by Lok Sabha

- The Lok Sabha must agree to the resolution by a simple majority.
- No impeachment procedure (unlike the President).

Grounds for Removal

- No specific grounds are mentioned in the Constitution.
- It's political in nature, not judicial.

Term and Vacancy

The Vice President holds office for 5 years.

- Can resign by writing to the President.
- Can continue beyond 5 years until a successor is elected.
- Can be re-elected for any number of terms.

Monthly Salary

- The Vice-President receives a salary of ₹4,00,000 (four lakh rupees) per month
- This is not a separate salary for the vice-president post; rather, they are paid the salary of the Chairperson of the Rajya Sabha, since the Vice-President serves ex-officio in that role.

Perks & Allowances

In addition to the monthly salary, the Vice-President is entitled to a wide array of benefits, including but not limited to:

- Free furnished official residence, currently known as the Vice-President's Enclave in New Delhi.

- Full medical care for self and family under government provisions
- Free domestic air and rail travel, including privileges for accompanying family members and staff.
- **Communication facilities:** landline and mobile connections at official cost.
- **Personal staff and security:** includes protocol staff, personal assistants, security personnel, and administrative support.
- **Secretarial support post-retirement:** Private Secretary and assistants continue after leaving office, with maintenance charges borne by the government.

Acting as President

- When the Vice-President assumes the duties of the President (*e.g.* vacancy, absence or incapacitation), they receive the full salary and benefits of the President of India during that period.

QUESTIONS

- Who among the following elects the Vice President of India?
 - Only the elected Members of Parliament from the Lok Sabha, excluding nominated members and members of the Rajya Sabha.
 - The elected representatives of all State Legislative Assemblies along with the elected members of both Houses of Parliament, excluding nominated members.
 - An electoral college consisting of both elected and nominated members of the Lok Sabha and Rajya Sabha, with no role for State Legislatures in the voting process.
 - The President of India, acting on the advice of the Union Council of Ministers, in consultation with the Election Commission of India.
- Which of the following is/are part of the eligibility criteria to become Vice President of India?
 - Must be at least 35 years old
 - Must be an Indian citizen
 - Must be a member of the Rajya Sabha
 - Must not hold an office of profit

Select the statement using the codes given below:

 - One statement only
 - Two statements only
 - Three statements only
 - All statements are true
- Who was the first Vice President of India to resign before completing the term?
 - R. Venkataraman
 - V. V. Giri
 - Mohammad Hidayatullah
 - Giani Zail Singh

4. What is the term of a newly elected Vice President in the case of a mid-term resignation?
- The remaining term of the predecessor
 - Until the next general election
 - Two years by default
 - Five years from the date of assumption
5. Which of the following statements is/are not true regarding the Vice-President of India?
- The Vice-President is the ex-officio Chairperson of the Council of States (Rajya Sabha).
 - The Vice-President can be removed from office by a resolution of the House of the People (Lok Sabha), passed by a majority of its members at that time and agreed to by the Council of States (Rajya Sabha).
 - The Vice-President may resign his office by submitting his resignation to the President of India.
 - The Vice-President acts as President, during casual vacancy in the office of the President by reason of death, resignation or removal or otherwise, until a new President is elected as soon as practicable and, in no case, later than six months from the date of occurrence of the vacancy.
 - A resolution to remove the Vice President must be moved in the Rajya Sabha.

Select the statement using the codes given below:

- One statement only
 - Two statements only
 - Three statements only
 - All statements are true
6. Unlike the President, the Constitution does not explicitly state the grounds for removing the Vice President. However, the removal process draws from general democratic and constitutional principles, includes which of the following?
- Violation of the Constitution
 - Incapacity to Perform Duties
 - Misconduct or Abuse of Office
 - All of the above

2. China Begins Construction of the World's Largest Hydropower Megadam on the Yarlung Tsangpo River

- China has officially commenced construction of what is expected to be the world's largest hydropower dam, situated on the Yarlung Tsangpo river in the Tibet Autonomous Region.
- The project, which Premier Li Qiang described as the "project of the century," marks a major milestone in China's ongoing renewable energy expansion.

- This megadam project, first announced in 2020 as part of China's 14th Five-Year Plan, is envisioned to bolster the country's power supply and reduce carbon emissions, but it has also sparked geopolitical, environmental, and cultural concerns.



Project Scale and Objectives

- The dam is located on the lower reaches of the Yarlung Tsangpo River, a transboundary river that becomes the Brahmaputra in India and the Jamuna in Bangladesh.
- The project will comprise five cascade hydropower stations, collectively expected to produce a staggering 300 million megawatt hours (MWh) of electricity annually.
- The estimated cost of the project is around 1.2 trillion yuan (approximately £124 billion), which is nearly five times more than the cost of China's Three Gorges Dam — currently the world's largest hydropower project in terms of installed capacity — which generates about 88.2 million MWh per year and cost 254.2 billion yuan.
- China aims to use this massive hydropower venture to increase its renewable energy capacity, reduce its carbon footprint, and stabilize energy supplies, especially during peak demand periods.
- As the world's largest carbon emitter, China is aggressively pushing towards renewable energy development to meet its climate goals.

Strategic Location and Natural Power

- One of the unique features of the dam's location is the immense hydropower potential of the river's descent.
- The Yarlung Tsangpo drops approximately 2,000 meters over a 50-kilometer stretch in a dramatic U-shaped canyon, creating an ideal setting for hydropower generation.
- Harnessing this drop allows for the development of a highly efficient and high-capacity energy source.

- However, the dam's remote location and extreme geographical conditions—including tectonic activity, steep gorges, and the risk of landslides—pose significant engineering and safety challenges.



Regional and International Concerns

- Despite China's assurances, the project has raised serious concerns among downstream countries, especially India and Bangladesh, who fear that the dam could alter the flow of the river, potentially affecting water availability for millions of people.
- The river flows from Tibet into India's Arunachal Pradesh and Assam states before entering Bangladesh. Damming the river could disrupt agricultural cycles, fisheries, and access to clean water downstream.

Environmental and Cultural Criticism

- Environmentalists and Tibetan advocacy groups have strongly criticized the dam, highlighting the ecological fragility of the area and its sacred cultural significance.
- The dam site lies in an area rich in biodiversity, which could be severely impacted by construction.
- Critics also point to the lack of transparency around the project's environmental impact assessments and possible displacement of local populations.
- Tibetan groups argue that the project endangers sacred sites along the river, and fear large-scale relocations similar to those seen during the construction of other major dams in China.
- For instance, the building of the Three Gorges Dam led to the displacement of approximately 1.5 million people. In 2023, protests erupted in Tibet against the Kamtok dam on the upper Yangtze river, which threatened to submerge Buddhist monasteries and displace thousands of people. The protests were reportedly met with harsh crackdowns, resulting in mass arrests.

Government Response and Future Outlook

- Despite the backlash, Chinese authorities maintain that the project will bring substantial economic benefits to Tibet by creating jobs and fostering regional development.
- Premier Li Qiang emphasized that ecological conservation will be a priority to minimize environmental damage.
- However, no detailed timeline or construction schedule has yet been released, and many questions remain about the project's long-term sustainability, regional impact, and social consequences.

The biggest dams in the world, categorized by different key metrics

By Structural Volume (largest by construction material used)

- **Tarbela Dam – Pakistan**
 - **Type:** Earth-fill dam
 - **Volume:** ~106 million m³
 - **River:** Indus
- **Fort Peck Dam – United States**
 - **Type:** Hydraulic earth-fill
 - **Volume:** ~96 million m³
 - **River:** Missouri
- **Atatürk Dam – Turkey**
 - **Volume:** ~84 million m³
 - **River:** Euphrates
- **Houtribdijk (technically a dike, not a dam) – Netherlands**
 - **Volume:** ~78 million m³

By Installed Hydropower Capacity (energy generation potential)

- **Three Gorges Dam – China**
 - **Capacity:** 22,500 MW
 - **River:** Yangtze
 - **Annual Generation:** ~88.2 TWh
- **Baihetan Dam – China**
 - **Capacity:** 16,000 MW
 - **River:** Jinsha (Yangtze tributary)
- **Itaipu Dam – Brazil/Paraguay**
 - **Capacity:** 14,000 MW
 - **River:** Paraná
 - **Remark:** Highest annual generation for many years (~103 TWh in 2016)
- **Xiluodu Dam – China**
 - **Capacity:** 13,860 MW
 - **River:** Jinsha



- **Belo Monte Dam – Brazil**
 - **Capacity:** 11,233 MW
 - **River:** Xingu

By Reservoir Size (surface area or water volume)

- **Kariba Dam – Zambia/Zimbabwe**
 - **Reservoir Volume:** ~180 km³
 - **Surface Area:** ~5,580 km²
 - **River:** Zambezi
- **Bratsk Dam – Russia**
 - **Reservoir Volume:** ~169 km³
 - **River:** Angara
- **Akosombo Dam (Lake Volta) – Ghana**
 - **Surface Area:** ~8,500 km² (world's largest artificial lake by surface area)
- **Guri Dam – Venezuela**
 - **Reservoir Volume:** ~135 km³
 - **River:** Caroní
- **Aswan High Dam – Egypt**
 - **Reservoir (Lake Nasser) Volume:** ~132 km³
 - **River:** Nile

QUESTIONS

7. The Yarlung Tsangpo hydropower project aims to generate approximately 300 million MWh of electricity annually. Which of the following dams is mentioned as the current largest hydropower project by installed capacity, and how does its annual generation compare?
- A. Itaipu Dam – 300 million MWh annually
 - B. Baihetan Dam – 88.2 million MWh annually
 - C. Three Gorges Dam – 88.2 million MWh annually
 - D. Kariba Dam – 103 million MWh annually
8. Which of the following potential consequences of the Yarlung Tsangpo Dam?
- 1. Alteration of river flow affecting agriculture in India and Bangladesh
 - 2. Risk of submerging culturally significant Tibetan monasteries
 - 3. Creation of the world's largest artificial lake
 - 4. Generation of geothermal energy

Select the correct answer using the code below:

- A. 1 and 2 only
 - B. 2 and 3 only
 - C. 1, 2, and 4 only
 - D. 1, 2, and 3 only
9. Which of the following is the correctly matched pair of dam and characteristic as per the passage?
- A. Kariba Dam – World's largest artificial lake by volume
 - B. Fort Peck Dam – Largest dam by hydropower capacity in the U.S.
 - C. Akosombo Dam – World's largest artificial lake by surface area
 - D. Three Gorges Dam – World's largest dam by structural volume
10. Consider the following dams and their respective rivers:
- 1. Itaipu Dam – Paraná River
 - 2. Xiluodu Dam – Yangtze River
 - 3. Baihetan Dam – Jinsha River
 - 4. Kariba Dam – Zambezi River

Which of the pairs given above are correctly matched?

- A. 1, 2 and 4 only
- B. 1, 3 and 4 only
- C. 1, 2 and 3 only
- D. 1, 2, 3 and 4

11. Which of the following countries does not share the transboundary Yarlung Tsangpo–Brahmaputra–Jamuna river system?
- A. Bhutan
 - B. Bangladesh
 - C. India
 - D. China

3. Indian prime minister makes UK state visit to sign landmark trade deal



- At the signing ceremony of the long-awaited India-UK Free Trade Agreement (FTA) in London, Prime Minister Narendra Modi highlighted the deal as a landmark step toward shared prosperity.
- The agreement is expected to significantly benefit India's textile, gems and jewellery sectors, MSMEs, and improve access to affordable medical devices and aircraft parts.
- It also includes a consensus on the Double Contributions Convention, aimed at boosting the services sector—especially in technology and finance—by simplifying and lowering business costs.
- PM Modi emphasized the strategic nature of the deal, noting its potential to generate employment, enhance investment, and deepen collaboration between two major democracies.
- The UK will benefit from Indian skilled talent, and both nations will work together on defence, cybersecurity, semiconductors, AI, and climate initiatives.

- A new “Vision 2035” roadmap was launched to guide cooperation in technology, education, defence, and people-to-people ties.
- As part of this initiative, six UK universities will open campuses in India, including a recently inaugurated one by the University of Southampton in Gurugram.
- The FTA is projected to increase bilateral trade by 39% to \$34 billion annually by 2040 (up from the current \$21 billion).
- India will gain tariff-free access on 99% of tariff lines, covering nearly all trade value.
- It will also open its market to British luxury goods like cars and whisky in a phased manner.
- Additionally, a defence industrial roadmap has been drawn to bolster security cooperation.
- The deal reinforces both nations’ commitment to peace, stability, and respect for sovereignty amid global challenges, while also fostering economic integration and strategic alignment.

Free Trade Agreement (FTA)

- A Free Trade Agreement (FTA) is a treaty between two or more countries that aims to reduce or eliminate barriers to trade, such as tariffs, quotas, and import/export restrictions, to promote increased economic exchange between the member countries.

Key Features of an FTA

Tariff Reduction or Elimination

- Countries agree to reduce or eliminate customs duties on goods traded among them.

Market Access

- Provides improved access to each other’s goods and services markets.

Rules of Origin

- Specifies which goods qualify for FTA benefits, usually requiring a certain percentage of local content.

Trade in Services

- Many FTAs include provisions that liberalize trade in services like banking, telecommunications, and professional services.

Investment Protections

- FTAs often include measures to protect investments and intellectual property rights.

Dispute Resolution Mechanisms

- Legal frameworks to resolve trade disagreements among member countries.

India – Technology Vision 2035

- Developed by India’s Technology Information, Forecasting and Assessment Council (TIFAC), part of the Department of Science and Technology, this vision focuses on:
 - Inclusive growth through science and technology
 - Ensuring food, water, and energy security
 - Enhancing healthcare, education, and infrastructure
 - Promoting innovation and entrepreneurship

India–UK Diplomatic Relations: Overview

Historical Context

- **Colonial Legacy:** The UK ruled India for nearly 200 years until India gained independence in 1947.

- **Post-Independence:** Diplomatic relations were established immediately after independence, and both countries have since maintained high commissions in each other's capitals (not embassies, as both are members of the Commonwealth).

Bilateral Relations Today

1. Political & Strategic Relations

- **Strategic Partnership (2004):** In 2004, the two countries launched a Strategic Partnership to enhance cooperation in various fields.
- **Roadmap 2030:** In May 2021, India and the UK agreed to a 10-year plan—"Roadmap 2030"—to deepen ties in areas such as:
 - Trade and investment
 - Defence and security
 - Climate change
 - Health and people-to-people links

2. Defence & Security

Increasing cooperation on

- Maritime security, especially in the Indo-Pacific region
- Counterterrorism and cybersecurity
- Joint military exercises

3. Science, Technology, Education

- Collaborative research initiatives (*e.g.*, Newton-Bhabha Fund)
- **Educational exchanges:** Large Indian student population in the UK; UK is a top destination for Indian higher education.

4. Diaspora and Cultural Links

- The Indian diaspora in the UK (approx. 1.9 million) plays a key role in bridging ties.
- UK politicians of Indian origin (*e.g.*, Rishi Sunak, the UK Prime Minister as of 2024) reflect the deep integration of Indians into British society.

Multilateral & Global Cooperation

- **Climate Action:** Collaborate under COP frameworks and on green technologies.
- **Commonwealth:** Both are active members of the Commonwealth of Nations.
- **UN and International Forums:** Coordinate on global issues like health, security, and reform of international institutions.

QUESTIONS

- Which of the following sectors in India is expected to benefit the most from the recently signed India–UK Free Trade Agreement (FTA)?
 - Automobiles and luxury goods
 - Coal and crude oil
 - Textiles, gems and jewellery, and MSMEs
 - Heavy machinery and defense manufacturing

13. With reference to the India–UK Free Trade Agreement, consider the following statements:
1. It allows India tariff-free access on 99% of tariff lines.
 2. It is expected to increase bilateral trade between India and the UK to \$34 billion annually by 2040.
 3. It excludes cooperation in the defence and cybersecurity sectors.

Which of the statements given above is/are correct?

- A. 1 and 2 only
 - B. 1 and 3 only
 - C. 2 and 3 only
 - D. 1, 2 and 3
14. The Double Contributions Convention included in the India–UK FTA aims to _____.
- A. Regulate bilateral taxation laws to prevent double taxation.
 - B. Lower business costs in services like technology and finance.
 - C. Establish equal funding for joint infrastructure projects.
 - D. Ensure equal environmental commitments under COP agreements.

4. Trump Pulls US Out Of UN Cultural Agency UNESCO for Second Time



- President Donald Trump has announced the United States will once again withdraw from the United Nations Educational, Scientific and Cultural Organization (UNESCO), citing the agency's support for what the White House calls "woke" and "divisive" causes.
- The decision, echoing Trump's 2017 move during his first term, will take effect at the end of next year.
- The Biden administration had rejoined UNESCO in 2023 after reversing several of Trump's earlier withdrawals from multilateral organizations.
- The Trump administration argues that UNESCO promotes a "globalist, ideological agenda" incompatible with its "America First" policy.
- It criticized the agency's stance on international development, social issues, and especially its admission of Palestine as a member state—an action seen by the U.S. and Israel as contributing to anti-Israel rhetoric.
- Trump's U.N. ambassador pick, Mike Waltz, reinforced this stance, calling for broader reform of the United Nations.
- Israel welcomed the U.S. withdrawal, with officials praising Washington's "moral support and leadership" and criticizing UNESCO for what they claim is a persistent anti-Israel bias.
- In contrast, global leaders including French President Emmanuel Macron expressed regret, emphasizing UNESCO's importance as a cultural and educational institution. Macron reaffirmed France's commitment to the agency, calling it a "universal protector" of world heritage.
- UNESCO Director-General Audrey Azoulay said the U.S. decision was anticipated and that the agency is prepared.
- She stressed that the organization had made substantial reforms in recent years, reducing political tensions and becoming a more consensus-driven forum.
- Azoulay also highlighted UNESCO's significant work in Holocaust education and combating antisemitism, pushing back against the narrative of anti-Israel bias.
- Despite the U.S. contributing about 8% of UNESCO's budget, officials said the withdrawal would have limited impact due to diversified funding.
- However, critics like U.S. Senator Jeanne Shaheen warned the move could create a leadership vacuum that benefits rivals like China, which became UNESCO's largest financial backer after Trump's initial withdrawal.
- The U.S. has had a complex relationship with UNESCO, being a founding member in 1945 but withdrawing in 1984 over similar concerns. It rejoined in 2003 under President George W. Bush and cut funding again in 2011 following Palestine's admission.
- Trump's renewed withdrawal continues a broader trend of disengagement from multilateral institutions, including previous exits from the WHO, the Paris Climate Accord, and the U.N. Human Rights Council.

UNESCO

- UNESCO — the United Nations Educational, Scientific and Cultural Organization — is a specialized agency of the United Nations that promotes peace and security through international cooperation in education, science, culture, and communication.

1. Importance of UNESCO

- UNESCO plays a crucial role globally in fostering sustainable development, intercultural dialogue, and human rights through:
 - **Education:** Promoting inclusive, equitable quality education (*e.g.*, Education for All, SDG 4).
 - **Science:** Supporting international scientific cooperation and sustainable development (*e.g.*, water resources, biosphere reserves).
 - **Culture:** Preserving cultural heritage, promoting cultural diversity, and protecting World Heritage Sites.
 - **Communication & Information:** Advocating for freedom of expression and access to information.

2. Significance of UNESCO

UNESCO contributes significantly to:

- **Peace-building:** By tackling ignorance, intolerance, and inequality through education and intercultural understanding.
- **Cultural Preservation:** With over 1,100 World Heritage Sites, it protects irreplaceable cultural and natural treasures.
- **Scientific Collaboration:** Through international programs like the Intergovernmental Oceanographic Commission.
- **Media Development:** Supporting free and independent journalism in developing democracies.

3. USA and UNESCO: Relationship Overview

Early Involvement

- The USA was a founding member of UNESCO in 1945.
- The U.S. played a central role in shaping the organization's original mission post-WWII.

Withdrawals and Reentries

- **1984:** The U.S. withdrew, citing mismanagement and an anti-Western bias.
- **2003:** Rejoined under President George W. Bush, noting reforms.
- **2017:** Withdrew again, citing politicization and bias against Israel.
- **2023:** Rejoined under the Biden administration, emphasizing UNESCO's value in countering global authoritarian influence and advancing U.S. interests in AI ethics, climate science, and education.

QUESTIONS

15. Which of the following was a major reason cited by the Trump administration for the U.S. withdrawal from UNESCO in both 2017 and 2024?
- A. Disputes over climate change policies
 - B. Rising UNESCO membership fees
 - C. Perceived anti-Israel bias and ideological agenda
 - D. Lack of support for global counter-terrorism programs
16. Which of the following statements regarding the United States' engagement with UNESCO is/are correct?
- 1. The United States was a founding member of UNESCO in 1945.
 - 2. The United States has never rejoined UNESCO after its first withdrawal in the 1980s.
 - 3. The Biden administration rejoined UNESCO in 2023.

Select the correct answer using the code given below:

- A. 1 and 2 only
- B. 1 and 3 only
- C. 2 and 3 only
- D. 1, 2 and 3

17. Consider the following activities:

1. Supporting Holocaust education
2. Advocating for free and independent journalism
3. Promoting artificial intelligence governance frameworks
4. Conducting UN peacekeeping operations

Which of the above are undertaken by UNESCO?

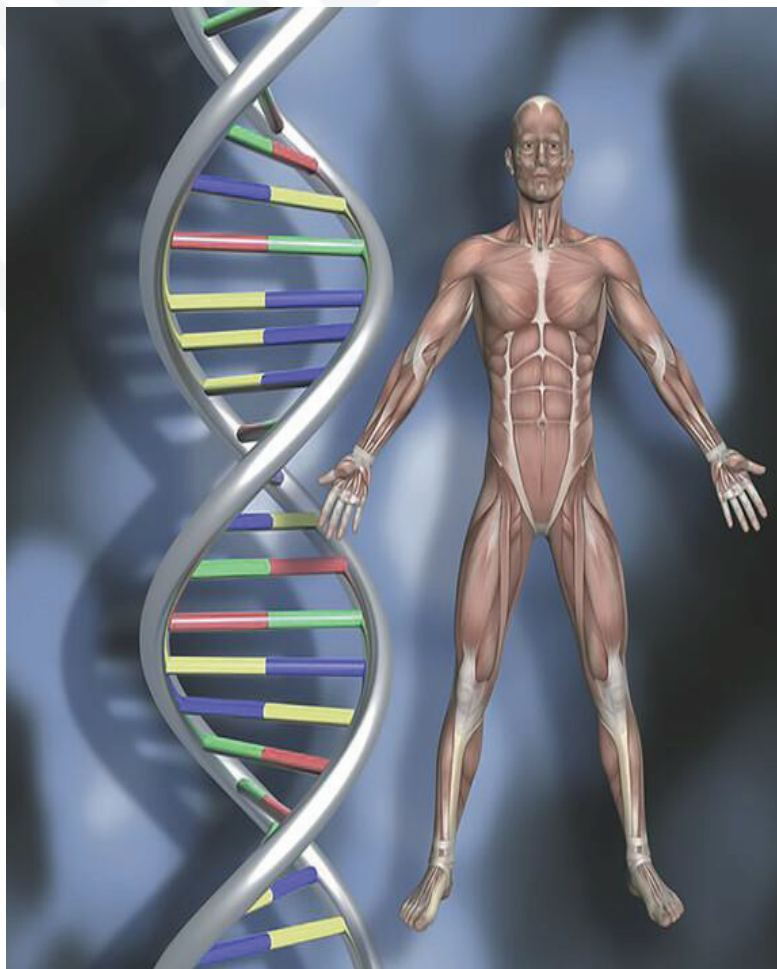
- A. 1, 2 and 3 only
- B. 1, 2 and 4 only
- C. 2, 3 and 4 only
- D. 1, 3 and 4 only

5. Gujarat to create genome database of tribal communities

- In a first-of-its-kind initiative in India, the Gujarat government has launched a five-year genome sequencing project aimed at building a comprehensive genomic reference database of 20 tribal groups across 17 districts.
- This project, called the Creation of Reference Genome Database for Tribal Population in Gujarat, is a state-level extension of the national Genome India Project (GIP), which had earlier sequenced 10,000 genomes from 83 diverse groups.
- However, GIP included only 100 tribal samples from Gujarat—too few to represent the tribal diversity of the state.

Scope and Coverage

- Gujarat's tribal communities constitute about 15% of the state's population—around 1 crore people—mainly residing along the eastern belt bordering Rajasthan, Madhya Pradesh, and Maharashtra.
- The genome sequencing effort, led by the Gujarat Biotechnology Research Centre (GBRC), will gather samples from 4,158 individuals, including 378 trio samples (individuals and their biological parents), to identify and analyze genetic diversity, disease susceptibility, and inherited conditions.



Objectives and Six-Point Agenda

The project has a clear six-point agenda:

- Capture the unique genetic diversity of tribal groups.
- Improve diagnosis of rare and inherited diseases.
- Support development of new, population-specific drugs.
- Enable precision medicine based on genetic profiles.
- Create a comprehensive genomic reference panel for tribal communities.
- Strengthen India's public health research infrastructure.

Health Implications and Genetic Disorders

- Tribal populations in Gujarat often suffer from health challenges such as malnutrition, anaemia, low BMI, and genetic disorders like sickle cell anaemia and G6PD deficiency.
- Due to endogamy (marriage within the same community), unique genetic traits are preserved, making these populations critical for genetic study.
- GBRC scientists cited cases of early organ failure in certain tribes linked to TTR (transthyretin) gene mutation.
- Identifying such genetic mutations can aid in preventive healthcare, reduce disease burden, and shape community-specific policies, such as early detection of diseases like breast cancer linked to BRCA gene mutations.

Scientific Process and Data Collection

The project includes rigorous data collection and analysis protocols:

- Blood and stool samples will be collected.
- Physical and medical data like height, weight, BP, blood sugar, genealogy, addictions, and education will be recorded.
- Hematological and biochemical tests will be performed.
- Genotyping (*e.g.*, identifying SNPs) will determine genetic diversity.
- Principal Component Analysis (PCA) will identify and eliminate genetically similar samples.
- Out of the initial 4,158 samples, 2,000 genetically diverse samples will undergo Whole Genome Sequencing (WGS) using the Illumina NovaSeq 6000 machine, capable of sequencing 50–100 samples weekly.

UNDERSTANDING TRIBAL GENETICS

● The project will provide a comprehensive repository of genetic markers that will help experts assess the probability of specific diseases or health conditions

● National surveys have indicated a relatively higher prevalence of anaemia and malnutrition among the tribal population, along with a relatively higher infant mortality rate



● Apart from health, the markers will help create a distinct profile of communities, ranging from genetic attributes to their interaction with larger population markers

Privacy and Ethical Considerations

- To protect participants' identities, the samples will be anonymized using a two-stage encryption process.
- Unique IDs will be generated for each sample, and neither gender nor tribal identity will be known to lab technicians during processing. Data will be securely stored on GBRC servers.

Community Engagement and Awareness

- Public awareness and community participation are key to the project's success.
- The Gujarat government plans to involve local MPs, MLAs, and the Tribal Development Department to encourage tribal communities to participate. Field teams will be supported by local administrations and tribal organizations, such as Birsa Munda Bhavan, to ensure ethical sample collection and voluntary consent.

Potential Broader Impact

- The genomic data collected will not only enrich the national Genome India dataset but also serve as a valuable resource for public health planning and medical research.
- It may unlock insights into physical and cognitive traits unique to tribal communities—such as excellence in archery or endurance sports—and the genes that may influence such skills.
- Additionally, other states with large tribal populations, such as Odisha and Madhya Pradesh, have expressed interest in collaborating with Gujarat's initiative, potentially expanding the project's scope at the national level.

QUESTIONS

18. Which of the following best explains the main objective of the Gujarat Genome Sequencing Project for tribal communities?
- A. To promote skill development among tribal populations.
 - B. To document the cultural practices of tribal groups.
 - C. To identify genetic diversity and improve disease diagnosis.
 - D. To implement biometric tracking of tribal individuals.
19. Which of the following disorders are mentioned as genetically prevalent among Gujarat's tribal populations in the genome project?
1. Sickle cell anaemia
 2. G6PD deficiency
 3. Thalassemia
 4. TTR gene-linked organ failure

Select the correct answer using the code below:

- A. 1 and 2 only
- B. 1, 2 and 4 only
- C. 2 and 3 only
- D. 1, 3 and 4 only

20. Why are tribal populations particularly valuable for genome studies, as noted in the Gujarat Genome Project?
- A. They represent the majority population in India.
 - B. They practice vegetarianism, which simplifies nutritional analysis.
 - C. Their genetic traits are preserved due to endogamy.
 - D. They have higher literacy rates which aid in data collection.

6. Newly commissioned INS Nistar



- The Indian Navy commissioned INS Nistar at the Naval Dockyard in Visakhapatnam.
- Indigenously designed and constructed by Hindustan Shipyard Limited, Nistar is the first of two diving support vessels (DSVs) that were ordered by the Navy in 2018. Its sister ship, Nipun, was launched in 2022, and is expected to be commissioned in the near future.
- Meant to support deep-sea diving and submarine rescue operations, these DSVs will enhance India's operational preparedness in the underwater domain and reinforce the country's strategic maritime posture across the Indian Ocean Region (IOR).

Nistar & its capabilities

- The original INS Nistar was a submarine rescue vessel acquired by the Indian Navy from the erstwhile Soviet Union in 1969, and commissioned in 1971.
- It remained in service till 1989, during which time it was the centrepiece of the Navy's diving and submarine rescue operations.
- The new Nistar will carry forward this legacy.

- But unlike its predecessor, it comprises more than 80% indigenous content, with about 120 MSMEs having participated in its construction.
- This makes Nistar the first indigenously designed and constructed diving support and submarine rescue vessel in India.
- With a displacement of around 10,500 tonnes, length of almost 120 metres, beam of more than 20 metres, and an endurance of more than 60 days at sea, the new Nistar is also larger and more capable than its 800-tonne predecessor.
- Nistar's specialised onboard diving complex has both air and saturation diving systems, which are complemented by underwater remotely operated vehicles (ROVs) and side scan SONARs.
- Moreover, Nistar will be the mothership of an advanced deep submergence rescue vehicle (DSRV).
- The Indian Navy acquired two DSRVs from the UK's M/s James Fisher & Sons in 2018 and 2019 — one each for Nistar and Nipun.
- Nistar can also carry a 15-tonne subsea crane, and support helicopter operations. Aboard Nistar is an operation theatre, an intensive care unit, and an eight-bedded hospital with hyperbaric medical facilities, all critical towards meeting the vessel's operational roles, the Navy said.

Why this matters

- The induction of Nistar into the Navy after the successful integration of the two DSRVs is a major milestone for India's deep-sea capabilities.
- With the Navy continuing to expand its submarine arm, it has to reckon with increased operational risks of operating in the deep sea.
- These risks demand a technologically capable platform for submarine rescue operations — the primary mandate of the Nistar-class vessels.
- Nistar is built to be both a diving support and a submarine rescue vessel, making it a strategic platform which strengthens India's position as a net maritime security provider within the IOR and beyond.
- With the induction of the two DSRVs in 2018-19, India entered a group of only 12 nations with these dedicated capabilities, and one of the very few possessing DSRVs that can be requisitioned by another country and airlifted for rapid international deployment during emergencies.
- Until now, however, the Navy relied on commercially leased platforms for the deployment of DSRVs, limiting its instant-deployment capabilities and round-the-clock rescue readiness. Nistar (and Nipun) will change this.
- The vessel's dynamic positioning and diving support features mean that the vessel can operate autonomously in the high seas.
- Its high transit speed ensures rapid deployment during emergencies, drastically reducing response time in scenarios where every minute counts.
- Based in Visakhapatnam, Nistar will serve as the DSRV mothership in the Eastern Seaboard, and Nipun, based in Mumbai, will serve in the Western Seaboard, completing the Navy's dual-coast operational posture.
- This arrangement guarantees simultaneous, high-readiness submarine rescue coverage across both maritime frontiers.
- This strategic capability would be particularly crucial in various maritime humanitarian assistance and disaster relief (HADR) operations carried out by the Navy.

For greater good

- Through bilateral agreements and Memorandums of Understanding with other navies, India has committed to sharing its submarine rescue expertise, and providing actual rescue support during emergencies worldwide.
- “In a world where underwater operations are becoming more complex and risks more unpredictable, INS Nistar ensures that India not only safeguards its own interests but is also ready and equipped to serve the greater good of global maritime safety.”

Indian Ocean Region (IOR)



- The Indian Ocean Region (IOR) refers to the geographic area surrounding the Indian Ocean, one of the world's major bodies of water.
- It is a highly strategic and economically significant region, encompassing several countries across Asia, Africa, and Oceania.

Geographical Scope

- The IOR includes countries that border or are situated near the Indian Ocean, including:

South Asia

- India
- Sri Lanka
- Maldives
- Bangladesh
- Pakistan

Southeast Asia

- Indonesia
- Thailand
- Myanmar
- Malaysia
- Singapore

East Africa

- Somalia
- Kenya
- Tanzania
- Mozambique
- Madagascar

Middle East

- Oman
- Yemen
- Iran
- United Arab Emirates

Others

- Australia (especially its western coast)
- Island nations like Seychelles, Comoros, Mauritius

Strategic Importance

- **Trade Routes:** Over 80% of global maritime oil trade passes through the IOR.
- **Chokepoints:** Includes key maritime chokepoints like the Strait of Hormuz, Bab el-Mandeb, and Strait of Malacca.
- **Naval Presence:** Major powers like the US, China, India, France, and the UK maintain a military/naval presence.
- **Energy Security:** Many IOR states are either major oil producers or rely heavily on imported oil via the region.
- **Economic Significance**
 - **Ports & Shipping:** Includes major ports such as Mumbai, Colombo, Dubai, and Singapore.
 - **Fishing & Marine Resources:** Rich in fish stocks and biodiversity.
 - **Mineral Resources:** Deep-sea mining potential (e.g., polymetallic nodules, gas hydrates).

Challenges

- Piracy (especially off the Somali coast)
- Geopolitical Tensions (India-China rivalry, US-China competition)
- **Environmental Concerns:** Rising sea levels, coral bleaching, and pollution
- Illegal Fishing and Smuggling

India's Role in the IOR

India sees itself as a net security provider in the region:

- Initiatives like SAGAR (Security and Growth for All in the Region)
- Naval exercises (e.g., MALABAR, MILAN)
- Engagement with IORA (Indian Ocean Rim Association)

QUESTIONS

21. Which of the following is the primary role of the newly commissioned INS Nistar?
- A. Anti-submarine warfare and nuclear deterrence
 - B. Deep-sea mining and oceanographic research
 - C. Diving support and submarine rescue operations
 - D. Maritime patrol and coastal surveillance

22. Consider the following statements about INS Nistar:

1. It is constructed entirely by the Mazagon Dock Shipbuilders Ltd.
2. It contains advanced saturation diving systems and supports helicopter operations.
3. It can serve as a hospital ship with hyperbaric medical facilities.

Which of the statements given above is/are correct?

- A. 1 and 2 only
- B. 2 and 3 only
- C. 1 and 3 only
- D. 1, 2 and 3

23. India joined a group of only 12 nations after the acquisition of Deep Submergence Rescue Vehicles (DSRVs). Which of the following statements best describes the strategic importance of these DSRVs?

- A. They are used primarily for underwater mining and seabed mapping.
- B. They are combat drones used for destroying enemy submarines.
- C. They enable emergency rescue of personnel from distressed submarines at great depths.
- D. They are nuclear-powered unmanned underwater vehicles used for surveillance.

24. Which of the following are key strategic chokepoints located in the Indian Ocean Region (IOR) that affect global maritime trade?

1. Strait of Hormuz
2. Strait of Gibraltar
3. Bab el-Mandeb
4. Strait of Malacca

Select the correct answer using the code below:

- A. 1, 2 and 3 only
- B. 1, 3 and 4 only
- C. 2, 3 and 4 only
- D. 1, 2, 3 and 4

7. 'To protect the Druze': Israel bombed Syria

- Israel launched powerful airstrikes on Damascus, marking a significant military intervention in Syria since the regime change that ousted Bashar al-Assad in December.
- The official justification for the strikes was to protect Syria's Druze minority, who have come under severe threat amid growing sectarian violence.
- However, this intervention also reflects deeper Israeli geopolitical goals, particularly the desire to create a demilitarised buffer zone along its northern border and to support a long-standing ally—Syria's Druze community.



Who Are the Druze?

- The Druze, also known as Banu Ma'ruf ("the righteous people"), are an Arabic-speaking, esoteric ethno-religious minority predominantly located in southern Syria, Lebanon, and northern Israel, including the occupied Golan Heights. Despite linguistic and regional similarities with their Muslim neighbors, the Druze follow a distinct religion that developed from Ismaili Shi'ism in the 11th century.
- Their faith includes unique doctrines, such as reincarnation, and reverence for the Fatimid ruler al-Hakim, whom they consider divine. Such beliefs are considered heretical by most Muslims.
- The Druze religion is closed—conversion into or out of it is not permitted. The community has a religious elite called uqqal ("knowers") who are privy to secret spiritual teachings.
- Druze women typically enjoy a higher societal status than in many other Middle Eastern communities.
- Historically, the Druze have been persecuted by dominant powers in the region and have developed a survivalist ethos, often aligning with whichever force could offer protection.

The Druze in Syria

- There are approximately 500,000 Druze in Syria, concentrated mostly in Jabal al-Duruz (Mountain of the Druze) and the Suweida governorate, near the Israeli border.
- During the long Syrian civil war, the Druze militias, though fragmented, primarily took a defensive stance—fighting off Sunni extremist groups such as al-Nusra Front, which is now linked to Syria's current leader, Ahmed al-Sharaa.
- Although some Druze were ambivalent or even supportive of Bashar al-Assad's regime, the fall of Assad and the rise of a Sunni Islamist government have alarmed the community.
- Under al-Sharaa's leadership, sectarian violence has escalated, and the new regime has been hostile to Syria's minority populations.

- In 2015, al-Nusra massacred at least 20 Druze in Idlib, and since the rise of the new Sunni regime, similar fears have intensified.
- In March and April, minority groups like Alawites and Druze faced renewed assaults. Recently, the Syrian army—under al-Sharaa’s directive—entered Suweida to suppress local conflict but ended up fighting against the Druze militias.
- The resulting clashes have killed at least 350 people. Al-Sharaa’s attempts to reintegrate Druze militias into a centralised military structure have largely failed, further deepening distrust.

Why Israel Intervened

- Israel’s official stance is that the airstrikes were a protective measure to safeguard the Druze minority, citing both humanitarian concerns and solidarity with the Druze population inside Israel.
- With around 152,000 Druze citizens, many of whom serve in the Israeli military and hold government positions, Israel has a vested interest in protecting their kin across the border.
- In recent months, Israeli Druze leaders have publicly urged the government to defend the Druze in Syria.
- But there are also strategic reasons. Israel has always viewed southern Syria as a critical security buffer.
- The Golan Heights, first occupied in 1967 and further consolidated in 2024, offers Israel a defensive high ground.
- A demilitarised southern Syria prevents the buildup of hostile forces—especially Sunni Islamist militias or groups aligned with Hezbollah, both seen as existential threats.
- Israel has therefore enforced its demand for a demilitarised zone, and the movement of Syrian tanks into Suweida was perceived as a red line violation.
- Israeli analyst Carmit Valensi from the Institute for National Security Studies summarised it clearly: the airstrikes were not just about protecting the Druze but also about reasserting control over the strategic equation in southern Syria.
- With the rise of a Sunni regime that has shown willingness to target minorities, Israel’s military calculus has shifted toward active deterrence.

The Israel-Druze Relationship

- The Druze are unique among Arabic-speaking minorities in Israel. Despite initial opposition to the formation of the Jewish state in 1948, the Druze community later integrated politically and militarily, distinguishing themselves from other Arab populations.
- According to historian Eduardo W Aboultaif, this accommodation was less ideological and more a pragmatic survival strategy. Over time, this evolved into a strong identification with the Israeli state, with the Druze seen both domestically and externally as loyal citizens.
- Some scholars suggest that the centuries-long persecution of Druze by Muslim powers contributed to this closeness.
- Israel, in this narrative, is seen as a protector, offering the Druze autonomy and integration in return for loyalty.
- Thus, when Druze civilians and leaders in Israel called for intervention in Syria, the state responded, in part, to preserve this delicate but vital alliance.

What Happens Next?

- While the Israeli strikes on Damascus have escalated tensions, a broader war is unlikely in the short term.
- Al-Sharaa, already weakened by internal unrest and lacking full control over many parts of the country, appears to be backing down—reportedly withdrawing forces from Suweida after U.S. diplomatic pressure.
- Washington, which has been quietly attempting to normalise Israel-Syria relations post-Assad, is believed to have mediated to prevent further escalation.

- Still, the strikes have jeopardised the fragile Israel-Syria détente. Al-Sharaa’s rhetoric has hardened since the airstrikes, accusing Israel of interfering in Syrian sovereignty and attempting to “sow discord”.
- He has called for national unity to rebuild the war-torn country, but many minority groups, particularly the Druze, remain deeply suspicious of the Sunni-majority government.
- **For Israel, the operation sent a clear signal:** it will not tolerate a hostile presence near its northern border, and it will act unilaterally if necessary.
- The intervention also strengthened its position as a protector of minorities, a narrative useful for both domestic cohesion and international legitimacy.

QUESTIONS

25. With reference to the Druze community, consider the following statements:

1. The Druze follow an open religion that allows conversion into their faith.
2. They believe in reincarnation and hold the Fatimid ruler al-Hakim as divine.
3. The Druze are mainly concentrated in Syria, Lebanon, and northern Israel.

Which of the statements given above is/are correct?

- A. 1 and 2 only
- B. 2 and 3 only
- C. 1 and 3 only
- D. 1, 2 and 3

26. The term “two-state solution” is sometimes mentioned in the news in the context of the affairs of

- A. China
- B. Israel
- C. Iraq
- D. Yemen

27. The origins of the Israel-Palestine conflict can be traced back to:

- A. The establishment of the United Nations in 1945
- B. The rise of Hamas in the late 1980s
- C. The Balfour Declaration issued during World War I
- D. The Second Intifada (2000-2005)

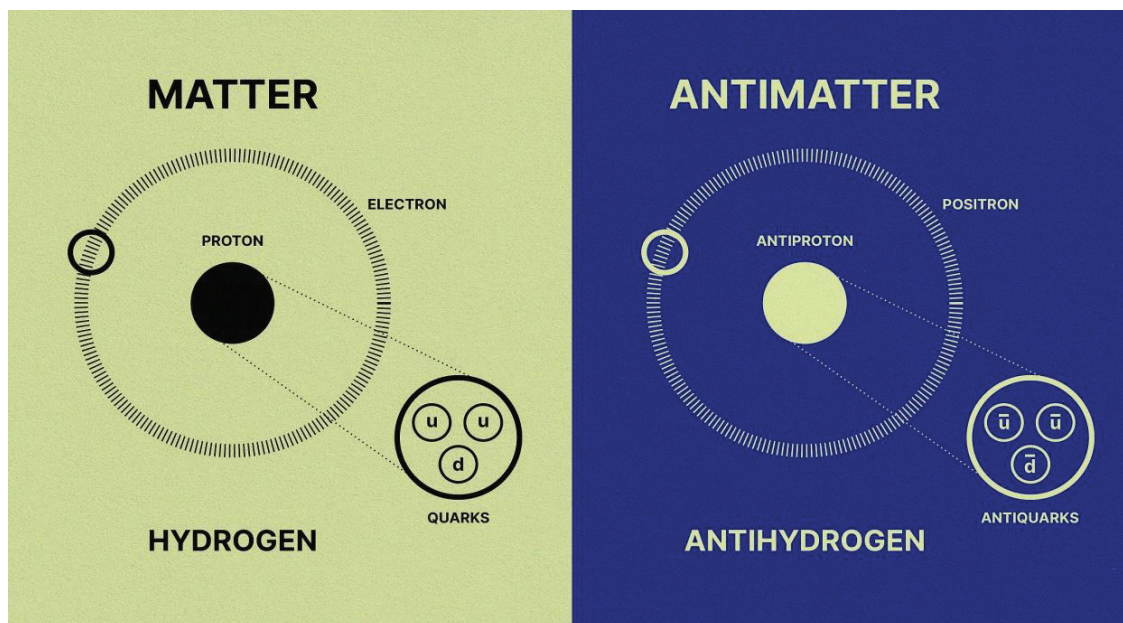
28. Which of the following shares border with Israel?

1. Lebanon
2. Iran
3. West Bank
4. Syria
5. Egypt
6. Mediterranean Sea

Select the correct answer using codes given below:

- A. 1, 3, 4, 5 and 6 Only
- B. 1, 2, 4, 5 and 6 Only
- C. 3, 4, 5 and 6 Only
- D. 1, 2, 3, 4, 5 and 6

8. Antimatter and why it matters?



Introduction to Antimatter: The Beginning of the Mystery

- In 1930, Paul Dirac, a theoretical physicist, sought to combine the principles of quantum mechanics with Einstein's theory of relativity.
- During this endeavor, Dirac's equations hinted at the existence of a “mirror” particle identical to the electron but with an opposite charge — an antiparticle.
- This discovery left him uneasy, as it suggested that every particle has a corresponding antiparticle.
- Dirac's initial unease was not unwarranted, for in 1932, American physicist Carl Anderson experimentally discovered the positron, the electron's antimatter twin, in cosmic ray experiments.
- This event, like rare moments in science, blended mathematics and nature in a striking coincidence.
- A particle predicted through theory was found in the universe, marking the beginning of humanity's recognition of antimatter as a real phenomenon.

Antimatter in Popular Culture

- While antimatter sounds like a concept from science fiction, it has long captured the imagination of writers and filmmakers.
- From the warp drives in Star Trek to the catastrophic threats in Angels and Demons, antimatter has been depicted as an energy source or weapon of unimaginable power.
- However, antimatter is much more than a fictional trope — it is a real, though elusive, part of the universe.

- The physical properties of antimatter, particularly its ability to annihilate when it meets its counterpart, have profound implications for both theoretical physics and energy.

Annihilation and Energy-Density: The Power of Antimatter

- The most significant and fascinating characteristic of antimatter is that when a particle meets its corresponding antiparticle, they annihilate one another in a burst of energy.
- This annihilation converts all the mass of the particles into pure light, in accordance with Einstein's equation.
- This process makes antimatter the most energy-dense substance known to science. A single gram of antimatter, in theory, could release as much energy as a nuclear bomb.

The Cosmic Mystery: Where is All the Antimatter?

- Despite the extraordinary energy potential of antimatter, it is conspicuously rare in the universe.
- According to the Big Bang theory, the universe should have created equal amounts of matter and antimatter.
- Yet, in an unsolved cosmic puzzle, the early universe appears to have favored matter over antimatter by one part in a billion.



- This small imbalance is the reason why everything we see — stars, planets, and galaxies — is made of matter.
- The mystery deepens when we consider that all the antimatter should have annihilated with its counterpart in the early universe, leaving behind only matter.
- Physicists are currently investigating why this imbalance exists. One possible explanation is that antimatter behaves slightly differently than matter, particularly in the way it decays.
- This subtle difference is known as CP violation (charge-parity violation), and experiments at institutions like CERN and Fermilab are working to measure and understand these effects. However, no conclusive explanation has yet been found.

Antimatter is Real: Applications and Research

- Despite its elusiveness, antimatter isn't just theoretical — it has practical applications.
- The most common use of antimatter occurs in Positron Emission Tomography (PET) scans.
- In this medical procedure, hospitals inject a radioactive tracer that emits positrons.
- When these positrons encounter electrons in the body, they annihilate and emit gamma rays.
- These rays are then detected to produce detailed images of tissues inside the body, aiding in medical diagnosis.
- On a more cutting-edge front, scientists at CERN's Antimatter Factory are working to trap anti-hydrogen atoms (made up of an antiproton and a positron) in magnetic fields, allowing them to study their properties.
- The key question is whether antimatter responds to gravity in the same way as regular matter. Early experiments suggest it does, but the precision required confirming this is still lacking.

Antimatter as a Potential Energy Source or Weapon

- The potential for antimatter to become an energy source is tantalizing. The annihilation of matter and antimatter releases an immense amount of energy, far more efficiently than any current propulsion system.
- This has led to speculation that antimatter could one day power spacecraft, possibly even enabling interstellar travel. NASA has funded studies exploring antimatter propulsion, and while the technology is far from practical, the idea remains an exciting possibility for the future.
- However, harnessing antimatter presents significant challenges.
- Producing even a single gram of antimatter would cost around \$60 trillion using current particle accelerators, and storing it safely is even more problematic.
- Any contact with matter would lead to immediate annihilation, making it difficult to contain and manage.
- Thus, while the potential for antimatter is vast, it remains far beyond our current technological capabilities.

Antimatter in Space: Searching for the Cosmic Twin

- While antimatter is scarce on Earth, it occasionally appears in the cosmos. Cosmic rays from distant parts of space can strike Earth's atmosphere, producing brief showers of antimatter particles.
- The International Space Station (ISS) carries the Alpha Magnetic Spectrometer, a device designed to scan for signs of antimatter nuclei in space.
- If detected, this could suggest the existence of regions of the universe made entirely of antimatter — a fascinating but speculative concept.
- Other cosmic phenomena, such as neutron stars and black hole jets, are believed to produce small amounts of antimatter.
- Yet, despite these potential sources, the universe remains overwhelmingly dominated by matter. Why the universe took this path, favoring matter over antimatter, remains one of the great mysteries of modern physics.

QUESTIONS

29. Who among the following first theoretically predicted the existence of antimatter through equations that combined quantum mechanics and relativity?
- A. Carl Anderson
 - B. Albert Einstein
 - C. Paul Dirac
 - D. Enrico Fermi

30. Which of the following best explains why antimatter is considered the most energy-dense substance known to science?
- A. It contains more protons and neutrons than matter.
 - B. Its annihilation with matter releases 100% of mass as energy.
 - C. It spontaneously generates energy in a vacuum.
 - D. It is unstable and emits continuous radiation.
31. Which of the following statements correctly describes the mystery of antimatter in the universe according to current physics understanding?
- A. The universe contains equal parts of matter and antimatter.
 - B. Antimatter decays faster than matter, causing its disappearance.
 - C. The Big Bang should have created equal amounts of matter and antimatter, but matter dominates.
 - D. Antimatter forms only under artificial laboratory conditions.
32. Consider the following statements regarding applications and properties of antimatter:
1. Antimatter is used in modern medical diagnostics like PET scans.
 2. The annihilation of 1 gram of antimatter could, in theory, release energy equivalent to that of a nuclear bomb.
 3. Antimatter has been detected in cosmic rays and black hole jets.
 4. It is easy and economical to produce and store antimatter in laboratories.
- Which of the statements given above are correct?
- A. 1, 2 and 3 only
 - B. 1, 3 and 4 only
 - C. 2 and 4 only
 - D. 1, 2, 3 and 4

9. India's top 10 states with highest per capita income

- India's per capita income has increased to Rs. 1,14,710 in the financial year 2024-25.
- As per a report tabled in the Lok Sabha, the per capita net national income (NNI) at constant prices was Rs. 72,805 in 2014-15.
- This marks a rise of Rs. 41,905 over the past decade.
- "As per the provisional estimates of GDP released by National Statistical Office, Ministry of Statistics and Programme Implementation (MoSPI), the per capita net national income (NNI) at constant prices for 2024-25 stands at ₹1,14,710.
- The per capita NNI at constant prices for ten years ago, that is 2014-15, was ₹72,805."

- The increase in per capita income varies across states and UTs. Elaborating further, the minister said that the differences in the increase in per capita income across states may be attributed to a range of factors such as varying levels of economic development, sectoral composition, structural disparities, and differences in governance mechanisms, among others.

Top 10 states/UTs in India with highest per capita income (FY25)

- According to the available data, the top ten states/UTs in India with the highest per capita income (FY24-25) are Karnataka with Rs. 2,04,605, followed by Tamil Nadu with Rs. 1,96,309, Haryana with Rs. 1,94,285, Telangana with Rs. 1,87,912, Maharashtra with Rs. 1,76,678, Himachal Pradesh with Rs. 1,63,465, Uttarakhand with Rs. 1,58,819, Puducherry with Rs. 1,55,533, Andhra Pradesh with Rs. 1,41,609, and Punjab with Rs. 1,35,356.



Karnataka has emerged as the state with the highest per capita income in the country for 2024–25.

Per capita NSDP at constant prices

Serial No	State\UT	2013-14 (in ₹)	2014-15 (in ₹)	2023-24 (in ₹)	2024-25 (in ₹)	Change in 2023-2024 over 2013-14 (in %)	Change in 2024-25 over 2014-15 (in %)
1	Andhra Pradesh	72254	79174	131083	141609	81.4	78.9
2	Arunachal Pradesh	79004	91034	111107	NA	40.6	
3	Assam	43002	44809	75938	81127	76.6	81.1
4	Bihar	22776	23223	32227	NA	41.5	

5	Chhattisgarh	61409	61122	87681	93161	42.8	52.4
6	Goa	188358	241081	357611	NA	89.9	
7	Gujarat	102589	111370	195617	NA	90.7	
8	Haryana	119791	125032	182816	194285	52.6	55.4
9	Himachal Pradesh	98816	105241	154330	163465	56.2	55.3
10	Jharkhand	43779	48781	65062	NA	48.6	
11	Karnataka	101858	105697	191970	204605	88.5	93.6
12	Kerala	107846	112444	162040	NA	50.3	
13	Madhya Pradesh	42548	44027	67301	70434	58.2	60.0
14	Maharashtra	109597	115058	166013	176678	51.5	53.6
15	Manipur	41441	44101	65471	NA	58.0	
16	Meghalaya	59729	57478	74489	77412	24.7	34.7
17	Mizoram	67594	85056	152363	NA	125.4	
18	Nagaland	58619	60372	81158	NA	38.4	
19	Odisha	54209	54361	99396	106918	83.4	96.7
20	Punjab	93238	95807	129561	135356	39.0	41.3
21	Rajasthan	61053	64496	90414	96638	48.1	49.8
22	Sikkim	168897	180675	292339	NA	73.1	
23	Tamil Nadu	102191	107117	179732	196309	75.9	83.3
24	Telangana	96039	101424	177000	187912	84.3	85.3
25	Tripura	54645	63992	97250	NA	78.0	
26	Uttar Pradesh	34044	34583	50341	NA	47.9	
27	Uttarakhand	112900	118979	150931	158819	33.7	33.5
28	West Bengal	53811	54520	77933	82781	44.8	51.8
29	Andaman & Nicobar Islands	98735	106711	177335	NA	79.6	
30	Chandigarh	180615	182867	256912	NA	42.2	
31	Delhi	200702	213669	271490	NA	35.3	
32	Jammu & Kashmir UT*	54783	51649	76653	81774	39.9	58.3
33	Ladakh						
34	Puducherry	129127	117102	145921	155533	13.0	32.8

Net National Income (NNI)

- Net National Income (NNI) is a key measure in national income accounting. It represents the total income earned by a nation's residents after accounting for depreciation (wear and tear of capital goods).
- It's a more accurate measure of a country's economic well-being than Gross Domestic Product (GDP) because it considers the loss of value in capital assets.

Formula for NNI

$$\text{NNI} = \text{GNI} - \text{Depreciation}$$

Where:

$$\text{GNI (Gross National Income)} = \text{GDP} + \text{Net income from abroad}$$

$$\text{Depreciation} = \text{Consumption of fixed capital (wear and tear, obsolescence)}$$

Components of NNI

- Wages and salaries
- Rent
- Interest
- Profits
- Net income from abroad
- Minus depreciation

Why NNI Matters

- Provides a clearer picture of national income available for consumption or savings.
- Helps policymakers assess sustainability of growth (since it accounts for capital consumption).
- Used for international comparisons of living standards.

Gross Domestic Product

- GDP stands for Gross Domestic Product. It is a key indicator used to measure the economic performance of a country.
- GDP is the total monetary value of all final goods and services produced within a country's borders over a specific period (usually a year or a quarter).

Types of GDP

Nominal GDP

- Measured using current prices.
- Doesn't account for inflation.

Real GDP

- Adjusted for inflation.
- Reflects the true growth in volume of production.

GDP per capita

- GDP divided by the population.
- Indicates the average economic output per person.

How is GDP Calculated?

There are three main approaches:

Production (or Output) Approach

GDP = Sum of value added at each stage of production.

Income Approach

GDP = Wages + Rents + Interest + Profits + Taxes – Subsidies

Expenditure Approach (most common)

GDP = C + I + G + (X – M)

Where:

C = Consumption I = Investment

G = Government Spending X = Exports

M = Imports

Why is GDP Important?

- Measures economic growth.
- Helps compare economies.
- Used by policymakers to guide decisions.
- Signals standard of living (via GDP per capita).

Per capita income

- Per capita income refers to the average income earned by each person in a specific area (such as a country, state, or city) over a certain period, usually a year.
- It's a common economic indicator used to measure the economic well-being of a population.

Formula

Per Capita Income = Total Income of the Area / Population of the Area

Example:

- If a country has a total income of \$1 trillion and a population of 100 million people:
Per Capita Income = 1,000,000,000,000 / 100,000,000 = \$10,000
- It does not reflect income inequality—a country could have high per capita income but still have a large gap between rich and poor.
- Often used to compare standard of living or economic development across regions or countries.
- Typically expressed in terms of annual income and often adjusted for inflation (real per capita income) or cost of living (purchasing power parity, or PPP).

QUESTIONS

33. Which of the following Indian states had the highest per capita income in FY 2024–25 according to the recent data?
- A. Maharashtra
 - B. Karnataka
 - C. Haryana
 - D. Tamil Nadu

34. Consider the following statements regarding per capita income in India:

1. It represents the average income per person in a given year.
2. It is always a reliable measure of income equality.
3. It can be influenced by factors like sectoral growth and population changes.

Which of the above statements is/are correct?

- A. 1 and 2 only
- B. 2 and 3 only
- C. 1 and 3 only
- D. 1, 2 and 3

35. Which of the following states showed the highest percentage increase in per capita income from 2014–15 to 2024–25 among the listed states?

- A. Odisha
- B. Karnataka
- C. Tamil Nadu
- D. Assam

36. The growth rate of per capita income at current prices is higher than that of per capita income at constant prices, because the latter takes into account the rate of:

- A. growth of population
- B. increase in price level
- C. growth of money supply
- D. increase in the wage rate

10. Thailand and Cambodia fighting at the border

- Simmering tensions between Thailand and Cambodia exploded into a deadly battle at the border.
- At least 12 Thai nationals, most of whom are civilians, have been killed, Thai authorities have said.
- How many people - if any - have lost their lives on the Cambodian side is not known.
- Each side is blaming each other for causing the escalation, which reportedly began with gunfire over the border.
- Thailand has accused Cambodia of then firing rockets, while Bangkok carried out air strikes on Cambodian military targets.

What's behind the tensions?

- This is not a recent dispute.
- In fact, the argument between Thailand and Cambodia dates back more than a century, when the borders of the two nations were drawn after the French occupation of Cambodia.



- Things officially became hostile in 2008, when Cambodia tried to register an 11th Century temple located in the disputed area as a Unesco World Heritage Site - a move that was met with heated protest from Thailand.
- Over the years there have been sporadic clashes that have seen soldiers and civilians killed on both sides.
- The latest tensions ramped up in May after a Cambodian soldier was killed in a clash.
- This plunged bilateral ties to their lowest point in more than a decade.
- In the past two months, both countries have imposed border restrictions on one another.
- Cambodia banned imports from Thailand such as fruits and vegetables, and stopped importing power and internet services.
- Both countries have also strengthened troop presence along the border in recent weeks.

History of Cambodia and Thailand

1. Ancient Civilizations and Cultural Foundations

Khmer Empire (9th–15th centuries):

- Cambodia was the center of the powerful Khmer Empire, which at its height (10th–12th centuries) dominated much of mainland Southeast Asia, including parts of what is now Thailand.

- Angkor Wat, one of the world's greatest architectural wonders, was built during this period.
- Thai kingdoms like Sukhothai and Ayutthaya were rising as Khmer influence waned.

Cultural Influence:

- Thai culture borrowed heavily from the Khmer in areas such as architecture, language (royal and religious terms), Hindu-Buddhist religious traditions, and court rituals.

2. Rise of Thai Kingdoms and Shifting Power (13th–15th centuries)

- The Sukhothai Kingdom (1238–1438) and later Ayutthaya Kingdom (1351–1767) grew in strength as the Khmer Empire declined.
- Ayutthaya frequently clashed with the Khmer, at times even occupying Angkor.
- These wars led to a shift of Cambodia's power center from Angkor to Phnom Penh and other locations.

3. Wars and Rivalry (16th–19th centuries)

- Thailand (then Siam) and Cambodia were frequent rivals.
- Cambodia was caught between Siam and Vietnam, both of which vied for dominance.
- In the 18th century, Cambodia became a vassal state, at various times paying tribute to both Siam and Vietnam.

4. Colonialism and Borders (19th–20th centuries)

- France colonized Cambodia in 1863, making it part of French Indochina.
- Thailand maintained independence but lost territory to the French, including parts of what is now Laos and Cambodia.
- Tensions emerged over areas like the Preah Vihear Temple, a historical Hindu temple on the Thai-Cambodian border.

5. Modern Conflict and Cooperation

Preah Vihear Temple Dispute:

- In 1962, the International Court of Justice (ICJ) ruled the temple belonged to Cambodia, but disputes over adjacent land persisted and led to border skirmishes in the 2000s–2010s.

Khmer Rouge Era (1975–1979):

- After the Khmer Rouge took power in Cambodia, Thailand became a refuge for Cambodians fleeing violence and was a base for anti-Khmer Rouge resistance.

French Colonies in Asia

1. French Indochina (Indochine française)

- **Established:** 1887
- **Dissolved:** 1954

Included:

- Vietnam (divided into:
- Tonkin in the north
- Annam in the center
- Cochinchina in the south)
- Laos
- Cambodia

Capital: Hanoi (later Saigon for Cochinchina)

- **Significance:** This was the most significant and lasting French colony in Asia. It became a major site of resistance and independence movements, eventually leading to the First Indochina War and the end of French rule in 1954.

2. French India (Inde française)

- Established: 1664 (formally under the French East India Company)
- Transferred to India: 1954 (de facto), 1962 (de jure)

Included:

- Pondichéry (Puducherry)
- Karaikal
- Mahé
- Yanam
- Chandernagore (merged with West Bengal in 1950)
- **Significance:** Though minor compared to British India, French India had cultural and strategic importance. French language and culture still influence the Union Territory of Puducherry today.

3. French Concession in China

- **Location:** Shanghai
- **Established:** 1849
- **Ended:** 1943 (officially returned to China)
- **Significance:** Like other foreign concessions in China, the French Concession was a semi-colonial enclave with extraterritorial rights. It became a center of French influence, architecture, and lifestyle in East Asia.

4. French Concession in Tianjin (Tientsin)

- **Established:** 1860
- **Ended:** 1946
- **Significance:** Another small French-controlled area in China, primarily used for trade and military presence.

QUESTIONS

37. What triggered the latest round of deadly violence between Thailand and Cambodia?
- A. A dispute over fishing rights in the Gulf of Thailand.
 - B. An argument about COVID-19 border closures.
 - C. Gunfire across the border, followed by rocket and air strikes.
 - D. Cambodian troops occupying Thai territory near Angkor Wat.
38. What long-standing issue reignited tensions between the two nations in 2008?
- A. A dispute over maritime oil drilling rights.
 - B. Thailand's support for Khmer Rouge leaders.
 - C. Cambodia's refusal to export electricity to Thailand.
 - D. Cambodia's attempt to register a disputed temple as a UNESCO World Heritage Site.

39. Which of the following statements is Not true regarding Cambodia?

- A. It does not share it's border with Laos
- B. Norodom Sihamoni is King of Cambodia.
- C. Its capital and most populous city is Phnom Penh.
- D. The riel is the currency of Cambodia

40. Which of the following statements is Not true regarding Thailand?

- A. It is a country in Southeast Asia.
- B. Bangkok is the capital and largest city.
- C. The baht is the official currency of Thailand.
- D. It does not share it's border with Myanmar



Career
Launcher

ANSWER KEY AND EXPLANATION

1. **C** The Vice President of India is elected by an electoral college composed of members of both Houses of Parliament (Lok Sabha and Rajya Sabha), including nominated members. Unlike the Presidential election, state legislatures do not participate in the Vice Presidential election. Voting is conducted using a secret ballot and proportional representation system.
2. **C** According to Article 66(3) of the Constitution of India, the eligibility criteria for becoming the Vice President are:
 1. He must be a citizen of India.
 2. He must have completed the age of 35 years.
 3. He must be qualified to be elected as a member of the Rajya Sabha.
 4. He must not hold any office of profit under the Government of India or any state government or local/public authority.

Now, let's evaluate the correct option C: The Constitution does not require the candidate to be a sitting member of the Rajya Sabha. It only requires the person to be "qualified to be elected" as a Rajya Sabha member. That means the candidate must meet the constitutional qualifications (citizenship, age, etc.) necessary to contest a Rajya Sabha seat — but they don't need to be an actual member at the time of nomination or election.

Hence, option C is not a correct requirement, and that's why it is the correct answer to the question (i.e., not part of the eligibility criteria).

3. **B** The first Vice President of India to resign before completing their term was VV Giri. VV Giri took over as acting president due to the death of Zakir Hussain in May 1969. On July 20, 1969, Giri stepped down from the post of VP in order to contest the presidential election as an independent candidate.
4. **D** A newly elected Vice President serves a full five-year term, regardless of how much time was left in the predecessor's term.
5. **A** The Vice-President of India is the second highest constitutional office in the country. He serves for a five-year term, but can continue to be in office, irrespective of the expiry of the term, until the successor assumes office. The Vice-President may resign his office by submitting his resignation to the President of India. The resignation becomes effective from the day it is accepted. The Vice-President can be removed from office by a resolution of the Council of States (Rajya Sabha), passed by a majority of its members at that time and agreed to by the House of the People (Lok Sabha). A resolution for this purpose may be moved only after a notice of at least a minimum of 14 days has been given of such an intention. A resolution to remove the Vice President must be moved in the Rajya Sabha. Upon passage of the resolution by both Houses, the Vice President stands removed. The Vice-President is the ex-officio Chairperson of the Council of States (Rajya Sabha) and does not hold any other office of profit. During any period when the Vice-President acts as, or discharges the functions of the President, he does not perform the duties of the office of the Chairperson of the Council of States (Rajya Sabha) and, is not entitled to any salary or allowances payable to the Chairperson, Rajya Sabha. The Vice-President acts as President, during casual vacancy in the office of the President by reason of death, resignation or removal or otherwise, until a new President is elected as soon as practicable and, in no case, later than six months from the date of occurrence of the vacancy. When the President is unable to discharge his functions owing to absence, illness or any other cause, the Vice-President discharges those functions till the President resumes office. During this period, the Vice-President has all the powers, immunities and privileges of the President and receives emoluments and allowances payable to the President.

6. **D** Unlike the President, the Constitution does not explicitly state the grounds for removing the Vice President. However, the removal process draws from general democratic and constitutional principles, including: Violation of the Constitution, Incapacity to Perform Duties and Misconduct or Abuse of Office.
7. **C** The Three Gorges Dam is identified in the passage as the current largest hydropower project by installed capacity (22,500 MW). It generates approximately 88.2 million MWh annually, which is far less than the projected 300 million MWh of the new Yarlung Tsangpo project.
8. **A** Statements 1 and 2 are explicitly mentioned:
(1) Concerns from India and Bangladesh about disruption in water availability and agricultural cycles.
(2) Protests in Tibet against dams threatening monasteries and sacred sites.
Statement 3 is incorrect — the world’s largest artificial lake by surface area is Lake Volta (Akosombo Dam in Ghana), not associated with this project.
Statement 4 is also incorrect — the dam produces hydropower, not geothermal energy.
9. **C** Kariba Dam has the largest reservoir by volume, but not the largest artificial lake by surface area.
(b) Incorrect: Fort Peck is large in volume but not the largest by hydropower capacity.
(c) Correct: The passage says Akosombo Dam’s Lake Volta is the world’s largest artificial lake by surface area (~8,500 km²).
(d) Incorrect: The Three Gorges Dam is the largest by installed capacity, not structural volume.
10. **D All the pairs are correctly matched:** Itaipu Dam is on the Parana River (Brazil–Paraguay). Xiluodu Dam is on the Jinsha River, a tributary of the Yangtze, but often described as part of the Yangtze system. Baihetan Dam is also on the Jinsha River. Kariba Dam is on the Zambezi River, between Zambia and Zimbabwe.
11. **A** The Yarlung Tsangpo originates in Tibet (China), enters India (Arunachal Pradesh, Assam), and flows into Bangladesh, where it is called Jamuna. Bhutan is part of other Himalayan river systems (e.g., tributaries of Brahmaputra) but not of the Yarlung Tsangpo/Brahmaputra main stem.
12. **C** It clearly highlights that India’s textile sector, gems and jewellery industry, and MSMEs will benefit significantly from the FTA. It also mentions improved access to aircraft parts and medical devices. While India is opening up to UK luxury goods like cars and whisky, those are concessions, not the main beneficiaries.
13. **A** **Statement 1 is correct:** The FTA provides tariff-free access on 99% of tariff lines for India.
Statement 2 is correct: The trade is projected to grow to \$34 billion annually by 2040, up from \$21 billion.
Statement 3 is incorrect: It includes cooperation in the defence and cybersecurity sectors.
14. **B** The Double Contributions Convention, as mentioned in the passage, is aimed at boosting the services sector—especially technology and finance—by simplifying and lowering business costs. It does not relate to taxation, infrastructure funding, or COP-specific commitments.
15. **C** The Trump administration cited UNESCO’s admission of Palestine and its alleged anti-Israel stance as a key reason. The agency was also criticized for promoting a “globalist” and “divisive” ideological agenda, viewed as contrary to Trump’s “America First” policy.

- 16. B Statement 1 is correct:** The USA was indeed a founding member of UNESCO in 1945.
Statement 2 is incorrect: The USA rejoined UNESCO in 2003 under President George W. Bush after its 1984 withdrawal.
Statement 3 is correct: The Biden administration rejoined in 2023, emphasizing cooperation in AI ethics, climate science, and education.
- 17. A** Holocaust education and combating antisemitism are part of UNESCO's cultural and educational programs. Media development and press freedom are central to UNESCO's Communication & Information mandate. UNESCO is also involved in guiding ethical use of AI. However, peacekeeping operations are handled by the UN Department of Peace Operations, not UNESCO.
- 18. C** The core aim of the project is to capture genetic diversity, improve diagnosis of inherited and rare diseases, and enable precision medicine among Gujarat's tribal groups. It is a scientific and healthcare initiative, not related to skill development, cultural documentation, or biometric tracking.
- 19. B** With tribal populations often exhibiting unique genetic mutations due to centuries of isolation and endogamy (marriage within the community), they face a higher burden of hereditary disorders like sickle cell anemia, thalassemia, and G6PD deficiency. This project could pave the way for precision medicine tailored to India's tribal groups, reducing healthcare disparities and aligning with the national mission to eliminate sickle cell anemia by 2047. TTR gene-linked organ failure is not typically mentioned in relation to the genetic profiles of Gujarat's tribal communities.
- 20. C** Endogamy (marriage within the same community) helps preserve unique genetic traits, making tribal populations ideal for genomic study. This leads to more reliable insights into inherited disorders and genetic uniqueness.
- 21. C** INS Nistar is India's first indigenously designed and constructed Diving Support Vessel (DSV). Its primary purpose is to support deep-sea diving and act as a submarine rescue platform, especially in coordination with India's Deep Submergence Rescue Vehicles (DSRVs).
- 22. B Statement 1 is incorrect:** INS Nistar was constructed by Hindustan Shipyard Limited, not Mazagon Dock.
Statement 2 is correct: It is equipped with saturation and air diving systems, ROVs, and supports helicopter operations.
Statement 3 is correct: It has an operation theatre, ICU, and hyperbaric medical facilities, making it capable of functioning as a floating hospital in emergencies.
- 23. C** DSRVs are specialized platforms used in submarine rescue missions. They can dock with a disabled submarine at depth and safely extract crew members, thus enhancing naval survivability and disaster response capabilities.
- 24. B** Strait of Hormuz, Bab el-Mandeb, and Strait of Malacca are strategic chokepoints in the IOR that are critical for global oil and trade routes. Strait of Gibraltar, while important, is located between Europe and Africa and lies in the Atlantic-Mediterranean corridor, not the IOR.
- 25. B Statement 1 is incorrect:** The Druze religion is closed, and conversion is not permitted.
Statement 2 is correct: The Druze believe in reincarnation and revere al-Hakim as divine.
Statement 3 is correct: Their main populations reside in southern Syria, Lebanon, and northern Israel, including the Golan Heights.

26. **B** The term “two-state solution” is commonly discussed in the context of the Israeli-Palestinian conflict. It refers to a proposed framework for resolving the decades-long conflict by creating two separate states:
1. Israel, as a Jewish state.
 2. Palestine, as a state for the Palestinian people, in territories that include the West Bank, East Jerusalem, and the Gaza Strip.
27. **C** The conflict’s origins lie in the late 19th and early 20th centuries when increased Jewish immigration to Palestine began causing tensions with the Arab population. The British government’s Balfour Declaration (1917) expressed support for establishing a “national home for the Jewish people” in Palestine. This laid the groundwork for the escalating tensions between Jews and Arabs in the region.
28. **A** Israel is a country in the Southern Levant region of West Asia. It is bordered by Lebanon and Syria to the north, the West Bank and Jordan to the east, the Gaza Strip and Egypt to the southwest, and the Mediterranean Sea to the west. The country also has a small coastline on the Red Sea at its southernmost point, and part of the Dead Sea lies along its eastern border. Israel’s proclaimed capital is in Jerusalem, while Tel Aviv is the country’s largest urban area and economic center.
29. **C** Paul Dirac, in 1930, formulated equations that merged quantum mechanics with Einstein’s relativity, predicting the existence of antiparticles. This led to the theoretical discovery of the positron, later confirmed experimentally by Carl Anderson.
30. **B** When antimatter comes in contact with matter, both annihilate completely, converting their entire mass into energy via Einstein’s equation $E = mc^2$. This is far more efficient than nuclear fission or fusion.
31. **C** The passage states that, according to the Big Bang theory, the universe should have produced equal amounts of matter and antimatter. However, there exists a tiny imbalance (1 part in a billion) that led to matter’s dominance, a mystery still under investigation.
32. **A** **Statement 1 is correct:** PET scans use positron-emitting tracers to detect anomalies in body tissues.
Statement 2 is correct: 1 gram of antimatter could release energy comparable to a nuclear bomb, due to total mass-to-energy conversion.
Statement 3 is correct: Antimatter has been observed in cosmic rays, neutron stars, and black hole jets.
Statement 4 is incorrect: Antimatter is extremely expensive to produce (about \$60 trillion per gram) and very difficult to store, as any contact with matter causes annihilation.
33. **B** As per the FY25 data, Karnataka has the highest per capita income at ₹2,04,605, followed by Tamil Nadu (₹1,96,309), Haryana (₹1,94,285), and Telangana (₹1,87,912). Karnataka’s per capita income increased from ₹1,05,697 (2014–15) to ₹2,04,605 (2024–25), which is a 93.6% increase, the highest among the listed states.
34. **C** **Statement 1 is correct:** Per capita income = Total income / Population.
Statement 2 is incorrect: It does not reflect income inequality. A high per capita income may still hide large disparities.
Statement 3 is correct: It is affected by both economic growth and population size.
35. **B** From the given data: Karnataka’s per capita income increased from ₹1,05,697 (2014–15) to ₹2,04,605 (2024–25), which is a 93.6% increase, the highest among the listed states. Odisha follows with 96.7%,

but its 2024–25 figure (₹1,06,918) is still lower in absolute terms and has lower starting base value. Tamil Nadu's increase is 83.3%, and Assam's is 81.1%.

36. B Per capita income can be measured in two ways:

At current prices (Nominal): This includes the effect of inflation or changes in price levels.

At constant prices (Real): This adjusts for inflation, meaning it reflects the true increase in income in terms of purchasing power by holding prices constant over time. Because current prices include both real growth and inflation, the growth rate tends to be inflated by rising prices. In contrast, per capita income at constant prices removes the inflation effect, giving a more accurate measure of real economic growth. Hence, the correct reason is: (b) Increase in price level — because constant price figures adjust for inflation, while current price figures do not. Therefore, nominal (current price) income appears to grow faster than real (constant price) income if prices are rising.

37. C The latest clash began with gunfire, with both sides blaming each other, and escalated into rockets and air strikes.

38. D The 2008 escalation occurred when Cambodia tried to register the 11th-century Preah Vihear temple, provoking strong opposition from Thailand.

39. A Cambodia, officially the Kingdom of Cambodia, is a country in Mainland Southeast Asia. It is bordered by Thailand to the northwest, Laos to the north, and Vietnam to the east, and has a coastline along the Gulf of Thailand in the southwest. Its capital and most populous city is Phnom Penh. The riel is the currency of Cambodia. Norodom Sihamoni is King of Cambodia.

40. D Thailand officially the Kingdom of Thailand and historically known as Siam (the official name until 1939), is a country in Southeast Asia on the Indochinese Peninsula. Bangkok is the state capital and largest city. Thailand is bordered to the northwest by Myanmar, to the northeast and east by Laos, to the southeast by Cambodia, to the south by the Gulf of Thailand and Malaysia, and to the southwest by the Andaman Sea; it also shares maritime borders with Vietnam to the southeast and Indonesia and India to the southwest. The baht is the official currency of Thailand. Vajiralongkorn is King of Thailand. He is the tenth Thai monarch of the Chakri dynasty since ascending the throne in 2016 with the regnal name Rama X.