

UPSC CURRENT AFFAIRS

JANUARY 2026 : WEEK-2

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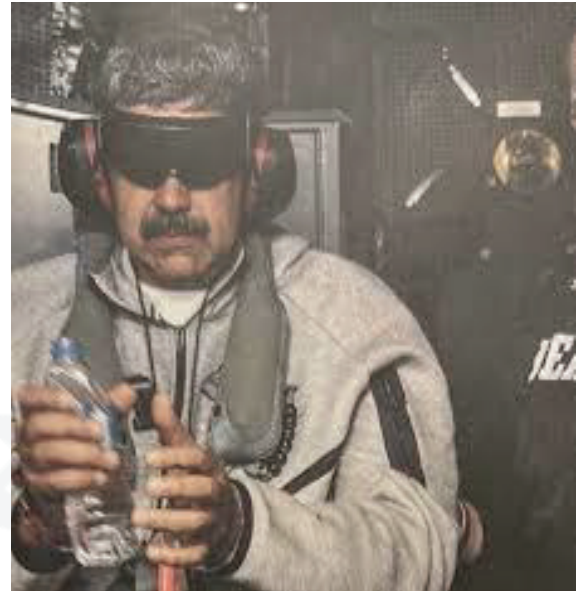
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1. 'Operation Absolute Resolve,' the US effort to capture Maduro



- The United States carried out a nighttime military operation in Caracas on January 3, 2026.
- Venezuelan President Nicolás Maduro and First Lady Cilia Flores were captured at their residence inside the Ft. Tiuna military complex.
- The operation lasted less than 30 minutes and involved airstrikes and low-flying aircraft.
- At least seven explosions were reported across the capital.

Casualties and Damage

- Venezuela's government said civilians and military personnel were killed, though no numbers were given.
- President Donald Trump stated that some U.S. forces were injured, but no U.S. fatalities occurred.
- Venezuelan officials accused the U.S. of bombing civilian and military installations.

Where Is Maduro Now?

- Trump confirmed Maduro and Flores were taken aboard the U.S. warship Iwo Jima.
- They are being transported to New York, where they will face U.S. prosecution.
- U.S. Attorney-General Pam Bondi said they will face "the full wrath of American justice."

Legal Basis for the Operation

- Maduro and senior Venezuelan officials were indicted in 2020 on narco-terrorism conspiracy charges.
- A new indictment was released on Saturday, accusing Maduro and Flores of involvement in drug trafficking and terrorism-related crimes.
- The legal authority for the military operation itself remains unclear.

Trump's Position

- Trump announced the U.S. would "run the country" temporarily.

- **He said the U.S. would:**
 - Oversee a political transition
 - Access Venezuela's oil reserves and sell oil internationally
 - Stop fentanyl production
- A team including Secretary of State Marco Rubio and Defense Secretary Pete Hegseth will be involved.

Venezuela's Response

- Vice President Delcy Rodríguez, now acting president, called the operation an “imperialist attack.”
- The government urged citizens to “take to the streets.”
- Armed civilian militias and ruling-party supporters mobilized in Caracas.
- Rodríguez later rejected Trump's claim that she would cooperate with the U.S.

Historical Context: The Monroe Doctrine

- The action revives the logic of the Monroe Doctrine, which treats Latin America as a U.S. sphere of influence.
- Between 1898 and 1994, the U.S. intervened in Latin America at least 41 times to change governments.
- Recent U.S. administrations had moved away from this approach.
- Trump has now explicitly reversed that trend.

Venezuela's Political Backdrop

- In July 2024 elections, opposition candidate Edmundo González was widely believed to have won.
- Maduro claimed victory and stayed in power.
- Opposition leader María Corina Machado, barred from running and now in exile, backed González.
- Trump publicly dismissed Machado's chances of leading Venezuela.

Why US attacked Venezuela?

1. Official U.S. reasons

- **The U.S. government, led by President Donald Trump, gave several justifications:**
 - Narco-terrorism and criminal charges
 - Maduro and his inner circle were accused of drug trafficking and “narco-terrorism.”
 - U.S. prosecutors had indicted Maduro years earlier on these charges.
- **Security claims**
 - The U.S. government argued that Venezuela was tied to drug cartels and criminal networks causing harm, especially through cocaine and fentanyl flowing toward the U.S.
 - Washington also linked Venezuela to migration pressures and broader regional instability.
- **Long-standing political hostility**
 - The U.S. has refused to recognize Maduro's leadership for years and supported opposition figures.

2. Underlying strategic and geopolitical factors

- Beyond the official statements, analysts and reports point to other motivations and context:
- **Oil and natural resources**
 - Venezuela has some of the largest oil and gas reserves in the world — and control of those resources has been a long-standing strategic issue in U.S.–Venezuela relations.

- **Relations with U.S. rivals**

- Venezuela's ties with Russia, China, Iran and Cuba worried U.S. policymakers, who fear influence from those countries in America's "backyard."

- **Accumulated tensions**

Before the full attack, the U.S. had already been:

- conducting military strikes on suspected drug vessels linked to Venezuela, which killed dozens and drew UN criticism;
- engaging in covert CIA operations and increasing military presence near Venezuelan coasts.
- All of this set the stage for the broader operation.

3. Legal and global reaction

- **International law controversies**

- Experts widely argue the attack violated international law (especially the UN Charter's ban on force against sovereign states), because the U.S. did not have a UN mandate or clear self-defense justification.

- **Global condemnation**

- Many countries — including Cuba, China, Russia, Mexico, Brazil, and others — condemned the operation as illegal intervention or aggression.

Nicolas Maduro is not the first foreign head of state to be captured by US, these are the others

Legal Justification Used by the United States

- **Ker-Frisbie Doctrine**

- A US legal principle allowing courts to try defendants even if they were illegally abducted and brought into US jurisdiction

- **Based on two Supreme Court cases:**

- **Ker v. Illinois (1886)**
- **Frisbie v. Collins (1952)**

- Holds that the method of capture does not invalidate jurisdiction or trial
- Cases Involving US Capture or Removal of Heads of State

Manuel Noriega (Panama)

- De facto ruler of Panama from 1983–1989
- Former ally of the US and CIA
- Assisted US-backed forces in Latin America
- Later accused of drug trafficking
- 1989 US invasion of Panama:
 - 27,000 US troops and 300 aircraft involved
 - Took refuge in the Vatican Embassy
 - Surrendered on January 3, 1990
 - Flown to Miami, tried and convicted
 - Sentenced to 40 years in prison

- **Extradited:**
 - **France (2010)**
 - **Panama (2011)**
- Died in 2017 from a brain tumour

Saddam Hussein (Iraq)

- President of Iraq until 2003
- Deposed following the US invasion of Iraq
- Captured by US forces in December 2003 near Tikrit
- Tried for crimes against humanity
- Executed in 2006

Jean-Bertrand Aristide (Haiti)

- Then-President of Haiti
- Claimed in 2024 that:
- He was kidnapped by the US
- Forced into exile under threat of violence
- Allegedly removed as rebels advanced

US position:

- Denied kidnapping
- Claimed it only facilitated a voluntary departure to prevent a “bloodbath”

Juan Orlando Hernández (Honduras)

- Former President of Honduras
- Not abducted by the US
- Arrested in Honduras in February 2022
- Extradited to the US in April 2022
- Convicted of drug trafficking
- Sentenced to 45 years in prison in June 2024
- Pardoned and released in November 2025 by Donald Trump

QUESTIONS

1. With reference to the geographical location of Venezuela, consider the following statements:

1. Venezuela has coastlines along both the Caribbean Sea and the Atlantic Ocean.
2. Venezuela shares land borders with Guyana, Brazil, and Colombia.
3. Venezuela also shares a land boundary with Peru.

Which of the statements given above is/are correct?

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

2. On 3 January 2026, the United States attacked Venezuela, capturing Venezuelan president Nicolás Maduro and his wife Cilia Flores. What was the codename for the military action?
- A. Operation Urgent Fury
B. Operation Absolute Resolve
C. Operation Desert Storm
D. Operation Just Cause

3. Consider the following statements:

Statement-I: Recently, Venezuela has achieved a rapid recovery from its economic crisis and succeeded in preventing its people from fleeing/emigrating to other countries.

Statement-II: Venezuela has the world's largest oil reserves.

Which one of the following is correct in respect of the above statements?

- A. Both Statement-I and Statement-II are correct and Statement-II explains Statement-I
B. Both Statement-I and Statement-II are correct, but Statement-II does not explain Statement-I
C. Statement-I is correct, but Statement-II is incorrect
D. Statement-I is incorrect, but Statement-II is correct
4. Which of the following lists correctly ranks countries by proven oil reserves from highest to lowest?
- A. Saudi Arabia – Venezuela – Iran – Canada
B. Venezuela – Saudi Arabia – Iran – Canada
C. Iran – Venezuela – Saudi Arabia – Iraq
D. Venezuela -Canada – Saudi Arabia – Iran

5. Consider the following statements:

Statement-I: The United States is the world's largest oil producer.

Statement-II: It is primarily due to technological advancements like shale oil extraction (fracking).

Which one of the following is correct in respect of the above statements?

- A. Both Statement-I and Statement-II are correct and Statement-II explains Statement-I
B. Both Statement-I and Statement-II are correct, but Statement-II does not explain Statement-I
C. Statement-I is correct, but Statement-II is incorrect
D. Statement-I is incorrect, but Statement-II is correct
6. With reference to Venezuela's physical geography, consider the following statements:
1. The Guiana Highlands in Venezuela are the location of the world's highest waterfall.
2. Lake Maracaibo lies in the Llanos plains region of the country.
3. The Orinoco River system plays a major role in shaping Venezuela's ecology and economy.

Which of the statements given above is/are correct?

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

7. Consider the following countries:

- | | | |
|------------|-------------|--------------|
| 1. Bolivia | 3. Colombia | 5. Paraguay |
| 2. Brazil | 4. Ecuador | 6. Venezuela |

Andes Mountains pass through how many of the above countries?

- | | |
|---------------|--------------|
| A. Only two | C. Only four |
| B. Only three | D. Only five |

8. With reference to the use of military force under international law, consider the following statements:

1. Article 2(4) of the UN Charter prohibits the use of force against the territorial integrity of states.
2. Article 51 permits the use of force only in response to an armed attack.
3. The UN General Assembly can independently authorise collective military action.

Which of the statements given above is/are correct?

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

9. With reference to the Monroe Doctrine, consider the following statements:

1. It opposed the establishment of new European colonies in the Americas.
2. It authorised the United States to intervene militarily in European internal affairs.
3. It originally committed the United States to non-interference in European wars.

Which of the statements given above is/are correct?

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

2. Iran's latest protests

- Iran is witnessing its most serious nationwide unrest since the 2022 “Woman, Life, Freedom” movement.
- Protests began in late December, initially over economic hardship, and have since expanded into open challenges to the Islamic regime.
- At least seven deaths have been reported so far.
- While demonstrations have slowed in Tehran, they are spreading to other cities and rural areas.



2. Immediate Trigger: Economic Collapse

- **The protests were sparked after the Iranian rial fell to a record low:**
 - Around 1.4–1.45 million rials per US dollar, compared to about 820,000 a year ago.
 - Inflation exceeds 40%, making food, medicine, and basic goods unaffordable.
 - GDP growth slowed to 3.7% in 2024/25, the weakest in five years.
 - The oil sector, once Iran's economic backbone, has sharply decelerated.
 - Iran's Central Bank chief resigned, deepening concerns about economic mismanagement.

3. Role of the Grand Bazaar

- The protests began with shopkeepers in Tehran's Grand Bazaar, historically a pillar of regime stability.
- **Bazaar merchants now face:**
 - Inability to compete with state-backed or regime-linked businesses
 - Currency collapse destroying imports and trade margins
- Historically, the Bazaar played a key role in:
 - **The 1906 Constitutional Revolution**
 - **The 1979 overthrow of the Shah**
- Analysts see the Bazaar's participation as a major warning sign for the regime.

4. Expansion beyond Economics

- **Protests have grown beyond shopkeepers to include:**
 - Students
 - Urban youth
 - Women-led groups
- **Common slogans include:**
 - Anti-government chants
 - Calls for regime change
- Increasing use of pro-monarchy slogans like "Javid Shah" ("Long live the Shah")

5. Youth Factor: A Generational Shift

- A new generation, born between 1997–2012 ("Dahe Hashtadi"), is driving unrest.
- **Key characteristics:**
 - No memory of the 1979 Islamic Revolution
 - Strong exposure to social media and global culture
- **Growing demands for:**
 - Personal freedom
 - Secularisation
 - Economic opportunity
- **Many young Iranians view the Pahlavi era as a time of:**
 - Modernisation
 - Economic growth
 - Global engagement
 - Increasing public support for exiled Crown Prince Reza Pahlavi is visible.

6. Political Context Inside Iran

- **President Masoud Pezeshkian, a reformist, has:**
 - Acknowledged economic grievances
 - Promised banking and monetary reforms
 - Called for dialogue with protesters
- **However:**
 - Ultimate authority lies with Supreme Leader Ayatollah Ali Khamenei (86)
 - Voter turnout in the 2024 election was just 40%, the lowest since 1979, signaling public disillusionment.

7. Sanctions and Nuclear Standoff

- **Iran's economic crisis is worsened by:**
- **Decades of US and Western sanctions**
 - Collapse of the 2015 Iran Nuclear Deal (JCPOA) after US withdrawal under Donald Trump
 - Reimposition of sanctions via a “snapback” mechanism by the UK, France, and Germany
 - Iran halted international nuclear inspections after US and Israeli strikes on nuclear sites.

8. Regional and International Pressure

- **Iran's regional influence is weakening due to:**
 - Losses suffered by Hezbollah and Hamas
 - The fall of the Assad regime in Syria
- **Fears of further escalation:**
 - Israel preparing for a multi-front conflict
 - Iran possesses an estimated 2,000 ballistic missiles
 - US President Donald Trump has issued strong warnings against Iranian repression

9. Why This Protest Wave Matters

- **Unlike earlier protests, this movement includes:**
 - Traditionally loyal groups (Bazaar merchants)
 - Youth with no ideological attachment to the regime
- **Iran now faces:**
 - Severe economic distress
 - International isolation
 - A deep crisis of legitimacy
- Analysts describe Iran as being in a state of revolt, even if a full-scale revolution is not yet certain.

1906 Constitutional Revolution of Iran

- The 1906 Constitutional Revolution of Iran was a major political movement that aimed to limit absolute monarchy and establish the rule of law.
- It is one of the most important events in modern Iranian history.

Background

- Before 1906, Iran (then called Persia) was ruled by the Qajar dynasty, where the shah held near-absolute power.
- The country faced:
 - Widespread corruption
 - Heavy foreign influence from Russia and Britain
 - Economic hardship, including high taxes and debt
 - Lack of legal protections for ordinary people
- Merchants, religious leaders, intellectuals, and students were increasingly frustrated with arbitrary rule and injustice.

Causes

- **Key factors that led to the revolution included:**
 - Economic crises and rising prices
 - Anger over foreign control of Iranian resources
 - Influence of modern political ideas such as constitutionalism and parliamentary government
 - Protests against government abuse and unfair taxation

Main Events

- In 1905–1906, protests and strikes spread, especially in Tehran.
- Demonstrators demanded the creation of a constitution and a parliament (Majles).
- In August 1906, Shah Mozaffar ad-Din Shah was forced to accept these demands.
- Iran's first constitution was signed later that year.

Achievements

- **The revolution led to:**
 - The establishment of the Majles (parliament)
 - A written constitution that limited the shah's power
 - Recognition of citizens' rights, such as legal equality and protection from arbitrary arrest
 - A move toward rule of law instead of absolute monarchy

Challenges and Aftermath

- The next shah, Mohammad Ali Shah, tried to reverse the reforms and even bombarded the parliament in 1908.
- Internal divisions and foreign interference weakened the movement.
- Despite setbacks, constitutional ideas survived and influenced later Iranian political movements.

Historical Significance

- **The 1906 Constitutional Revolution:**
 - Marked Iran's first major step toward democracy
 - Inspired later struggles for political reform
 - Remains a symbol of resistance against tyranny and foreign domination

1979 overthrow of the Shah



- The 1979 overthrow of the Shah in Iran is known as the Iranian Revolution.

What happened?

- In 1979, Iran's long-time ruler Mohammad Reza Shah Pahlavi was forced out of power after months of mass protests and strikes.
- The monarchy collapsed, and Iran was transformed into an Islamic Republic.

Why it happened

- **Several major factors contributed:**
 - **Authoritarian rule:** The Shah ruled with little political freedom, using a secret police force (SAVAK) to suppress opposition.
 - **Western influence:** Many Iranians resented the Shah's close ties to the United States and Europe, seeing them as foreign interference.
 - **Economic inequality:** Rapid modernization benefited elites but left many people struggling.
 - **Religious opposition:** Conservative religious leaders opposed the Shah's secular policies.

Key figure

- **Ayatollah Ruhollah Khomeini:** A Shi'a cleric who became the revolution's leader.
- Though exiled for years, he gained massive support and returned to Iran in February 1979.

Outcome

- The Shah fled Iran.
- A referendum abolished the monarchy.
- Iran became an Islamic Republic, with Khomeini as Supreme Leader.
- Religious leaders gained major political power, reshaping Iran's laws, society, and foreign relations.

Why it matters

- It dramatically changed Iran's government and society.
- It reshaped Middle Eastern politics.
- It led to long-term tension between Iran and Western countries, especially the U.S.

QUESTIONS

10. How many of the following countries share a land border with Iran?

- | | |
|-----------|----------------|
| 1. Iraq | 4. Afghanistan |
| 2. Turkey | 5. Georgia |
| 3. Kuwait | |

Select the correct answer using codes given below:

- | | |
|---------------|--------------|
| A. Only two | C. Only four |
| B. Only three | D. Only five |

11. With reference to the ongoing **protests in Iran**, consider the following statements:

1. The protests began as a response to economic hardship and later expanded into political demands against the Islamic regime.
2. The Iranian rial has strengthened recently, helping to ease inflation and the cost of basic goods.
3. The Grand Bazaar in Tehran has played a significant role in the protests, historically linked to regime stability.

Which of the statements given above is/are correct?

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

12. With reference to the **Strait of Hormuz**, consider the following statements:

1. The Strait of Hormuz connects the **Persian Gulf** to the **Gulf of Oman**.
2. The northern coast of the Strait of Hormuz is bordered by **Iran**, and the southern coast is shared by the **United Arab Emirates** and **Oman**.
3. The Musandam Peninsula is entirely part of the **United Arab Emirates**.

Which of the statements given above is/are correct?

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

13. Consider the following statements about **Chabahar Port**:

1. India and Iran signed a 10-year agreement in 2024 for the development of Chabahar Port.
2. The agreement grants India operations of the Shahid Beheshti terminal, which was developed with Iranian assistance.
3. Chabahar Port provides India with direct access to Afghanistan and Central Asia, bypassing Pakistan.

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

3. Sagarmala Finance Corporation Limited (SMFCL) Commences Lending Operations

1. Key Milestone

- Sagarmala Finance Corporation Limited (SMFCL) has commenced lending operations, becoming India's first maritime-focused NBFC.
- Loan sanctions of Rs. 4,300 crore approved at the 51st Board Meeting on December 30, 2025.
- Marks SMFCL's formal entry into the maritime lending ecosystem.

2. Strategic Lending & Borrowing Targets

- **Borrowing limit approved:** Rs. 25,000 crore
- **Lending target for FY 2025–26:** Rs. 8,000 crore
- **Target loan book (FY 2025–26):** Rs. 8,000 crore
- Latest sanctions to be disbursed within the current fiscal year.

3. Major Loan Sanctions

- Rs. 4,000 crore allocated to a Greenfield Port Project (port-led development).
- **Dredging Corporation of India (DCI):** Rs. 150 crore.
- **Goa Shipyard Limited:** Rs. 110 crore.
- Focus on port infrastructure, dredging capacity, and indigenous shipbuilding.

4. Institutional Background

- Inaugurated on June 26, 2025 by Union Minister Sarbananda Sonowal.
- Established to bridge financing gaps in the maritime sector.
- Aligned with Amrit Kaal Vision 2047 and India's Blue Economy objectives.

5. Government Support & Maritime Development Fund (MDF)

- **SMFCL designated as nodal agency for the Maritime Development Fund (Rs. 25,000 crore):**
 - **Maritime Investment Fund:** Rs. 20,000 crore
 - **Interest Incentivisation Fund:** Rs. 5,000 crore
 - Will manage Government of India's contribution to the Alternative Investment Fund (AIF) in a fiduciary role.
 - Will channelise interest incentives to expand sector-wide funding.



6. Credit Ratings & Financial Strength

- Credit ratings from major agencies expected shortly.
- Anticipated to lower borrowing costs and enable scaling up of lending operations.

7. Shipbuilding Financial Assistance Scheme

- Upcoming guidelines for Shipbuilding Financial Assistance Scheme.
- **Outlay:** Rs. 44,700 crore.
- Expected to boost shipbuilding, allied industries, and domestic manufacturing.

Non-Banking Financial Company

- An NBFC is a company that provides financial services similar to a bank, like loans, credit, investments, or asset financing, but it does not hold a full banking license.
- Importantly, it cannot accept demand deposits (like your savings or checking accounts in a bank).

Key Features of NBFCs:

- They cannot issue cheques drawn on themselves.
- They cannot accept demand deposits (only banks can).
- They provide loans, credit, hire-purchase, leasing, and investment services.
- They are regulated by the Reserve Bank of India (RBI) in India.

Types of NBFCs:

- Asset Finance Companies (AFCs) – finance physical assets like cars or machinery.
- Loan Companies (LCs) – provide loans and advances.
- Investment Companies (ICs) – invest in shares, stocks, bonds.
- Microfinance NBFCs (NBFC-MFIs) – provide small loans to low-income people.
- Infrastructure Finance Companies (IFCs) – fund infrastructure projects.

QUESTIONS

14. Consider the following statements about Sagarmala Finance Corporation Limited (SMFCL):

1. SMFCL is India's first maritime-focused Non-Banking Financial Company (NBFC).
2. It was inaugurated on June 26, 2025, by Prime Minister of India.
3. SMFCL is tasked with bridging financing gaps in the maritime sector and is aligned with India's **Blue Economy** objectives.
4. SMFCL will manage the Maritime Development Fund of Rs. 25,000 crore, which includes Rs. 5,000 crore for the Interest Incentivisation Fund.

Which of the statements given above is/are correct?

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

15. Consider the following statements regarding **Non-Banking Financial Companies (NBFCs)**:

1. NBFCs are allowed to issue cheques drawn on themselves.
2. NBFCs are allowed to accept demand deposits, similar to banks.
3. NBFCs provide services such as loans, credit, leasing, and investment.
4. NBFCs are regulated by the Reserve Bank of India (RBI).

Which of the statements given above are correct?

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

16. Consider the following statements regarding the **Sagarmala Programme**:

1. The Sagarmala Programme was launched in March 2015 by the Ministry of Ports, Shipping, and Waterways to enhance India's maritime sector.
2. The program focuses solely on port modernization and does not include coastal or waterway infrastructure development.
3. The Sagarmala Programme is aligned with the **Maritime Amrit Kaal Vision 2047 (MAKV)**, which aims to make India a global leader in maritime affairs.
4. The program's targets under MAKV include building **4 million GRT** of shipbuilding capacity and handling **10 billion metric tons** of port traffic annually by 2047.

Which of the statements given above is/are correct?

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

4. India needs climate-resilient agriculture

- Climate threat to Indian agriculture: Increasing weather unpredictability, declining soil health, and rising air pollution threaten farm productivity.
- Climate change could reduce staple crop yields by 3–22% by the end of the century, with worst-case drops exceeding 30%.

What is Climate-Resilient Agriculture (CRA)?

- Combines biotechnology and modern tools to maintain or improve crop productivity while reducing chemical inputs.



- Key techniques include biofertilizers, biopesticides, soil microbiome analyses, genome-edited climate-tolerant crops, and AI-driven farm advisories.

Need for CRA in India:

- 51% of India's cultivated land is rainfed, producing 40% of food—making it highly climate-vulnerable.
- CRA can boost yields, reduce reliance on imports, and strengthen India's food security and strategic autonomy.

Current status in India:

- ICAR's National Innovations in Climate Resilient Agriculture project covers 448 climate-resilient villages with technologies like zero-till wheat, direct-seeded rice, and climate-tolerant varieties.
- National Mission for Sustainable Agriculture focuses on integrated farming, water efficiency, and soil health.
- BioE3 policy positions CRA as a key area for biotechnology solutions.
- Private sector companies like Biostadt, IFFCO, GSFC, and IPL Biologicals supply bio-inputs; agritech startups provide AI-driven farm advisories and precision tools.
- **Global practices:**
 - **USA:** USDA Climate-Smart Agriculture invests billions in climate-smart practices.
 - **EU:** Green Deal & Farm to Fork Strategy aim to cut chemical use and boost sustainability.
 - **China:** Focus on climate-tolerant crops, water-saving irrigation, and digital agriculture.
 - **Brazil:** EMBRAPA leads tropical climate-resilient crop research.
- **Challenges for India:**
 - Limited adoption by small farmers due to access, affordability, and awareness gaps.
 - Quality inconsistencies in biofertilizers and biopesticides.
 - Slow rollout of climate-resilient seeds and gene-editing tools.
 - Digital divide restricts precision farming reach.
 - Soil degradation, water scarcity, and fragmented policies hinder progress.

Why Climate Resilience Matters for India

- **Rain-dependent farming:** Nearly half of India's farmland depends on monsoons.
- **Smallholder dominance:** Most farmers have limited resources to absorb climate shocks.
- **Food security pressure:** A growing population needs stable food production.
- **Regional vulnerability:** Arid, coastal, Himalayan, and tribal regions face distinct climate risks.

1. Climate-Smart Farming Practices

- Crop diversification instead of monocropping
- Intercropping and mixed farming to spread risk
- Conservation agriculture (minimum tillage, mulching)
- Agroforestry integrating trees with crops and livestock

2. Climate-Resilient Crops

- **Development and adoption of:**
 - Drought-tolerant rice, millets, and pulses
 - Flood- and salinity-tolerant varieties (especially for coastal areas)
 - Revival of nutri-cereals (millets)—hardy, low-water crops now promoted nationally

3. Water-Smart Agriculture

- Micro-irrigation (drip and sprinkler systems)
- Rainwater harvesting and farm ponds
- Watershed management in dryland regions
- Efficient groundwater use through community regulation

4. Digital and Climate Information Systems

- Weather-based advisories via mobile phones
- Early warning systems for droughts, floods, and cyclones
- Use of AI, satellite data, and remote sensing for crop planning and insurance

5. Soil Health and Carbon Farming

- Improved soil organic carbon through:
 - Composting and green manures
 - Biofertilizers
- Healthier soils improve water retention and reduce emissions

6. Livestock and Fisheries Resilience

- Heat-resistant livestock breeds
- Improved fodder management
- Climate-resilient aquaculture practices in coastal and inland areas

Government Initiatives Supporting Climate Resilience

- National Mission for Sustainable Agriculture (NMSA)
- Paramparagat Krishi Vikas Yojana (organic farming)
- Pradhan Mantri Krishi Sinchayee Yojana (irrigation)
- Soil Health Card Scheme
- Crop insurance (PMFBY) to reduce climate risk

QUESTIONS

17. Consider the following statements regarding **Climate-Resilient Agriculture (CRA)**:

1. CRA combines modern biotechnology with traditional practices to maintain or improve crop productivity while reducing chemical inputs.
2. Key techniques in CRA include biofertilizers, biopesticides, soil microbiome analysis, and AI-driven farm advisories.
3. CRA primarily focuses on increasing the use of chemical fertilizers and pesticides in agriculture.
4. ICAR's National Innovations in Climate Resilient Agriculture project currently covers 448 climate-resilient villages in India.

Which of the statements given above are correct?

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

18. Which of the following are government initiatives supporting climate resilience in Indian agriculture?

1. National Mission for Sustainable Agriculture (NMSA)
2. Paramparagat Krishi Vikas Yojana (organic farming)
3. Pradhan Mantri Krishi Sinchayee Yojana (irrigation)
4. National Innovations in Climate Resilient Agriculture (NICRA)

Select the correct answer using the code below:

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

19. With reference to **global practices in climate-smart agriculture**, consider the following statements:

1. The **USA's USDA Climate-Smart Agriculture** initiative invests billions in implementing climate-smart agricultural practices.
2. The **EU's Green Deal and Farm to Fork Strategy** focus on **reducing chemical use** and boosting **sustainability** in farming.
3. **China** is focusing on **tropical crop research** and **precision agriculture** to enhance climate resilience.
4. **Brazil's EMBRAPA** leads research on **tropical climate-resilient crops** and climate-smart practices in agriculture.

Which of the statements given above are correct?

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

20. Consider the following statements regarding the **National Mission for Sustainable Agriculture (NMSA)** and its components:

1. The NMSA aims to make agriculture more productive, sustainable, and climate resilient by promoting integrated farming systems, soil health management, and efficient water management practices.
2. The **Per Drop More Crop (PDMC)** component of **Pradhan Mantri Krishi Sinchayee Yojana (PMKSY)** mainly focuses on **rainwater harvesting** at the farm level.
3. The **Soil Health Card Scheme** under NMSA aims to provide farmers with information about the soil nutrient status and recommendations for appropriate fertilizer use.
4. The **Rainfed Area Development Programme** under NMSA focuses on increasing the production of single crops in rainfed areas to boost farm incomes.

Which of the statements given above is/are correct?

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

5. India becomes world's largest rice producer

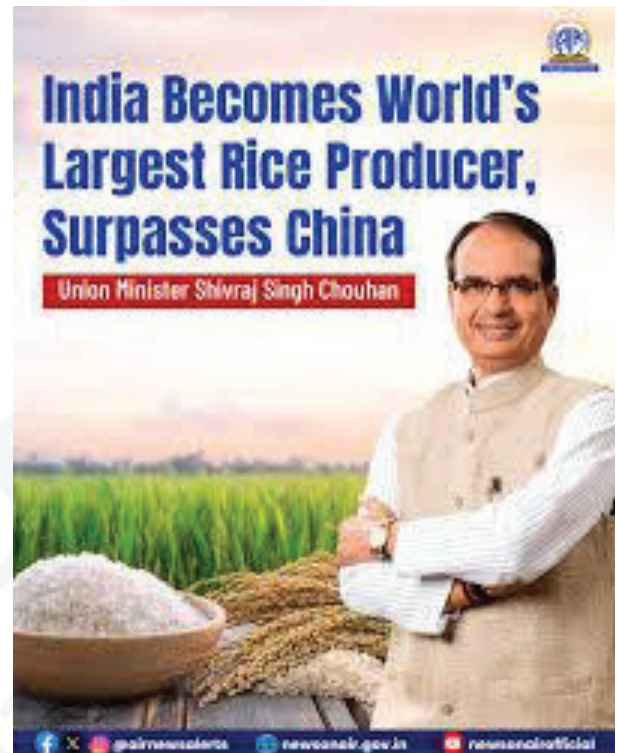
- India has emerged as the world's largest producer of rice, surpassing China.

Rice Production (Latest Figures):

- India: 150.18 million tonnes
- China: 145.28 million tonnes
- The announcement was made by Union Agriculture Minister Shivraj Singh Chouhan in New Delhi.
- India is now actively supplying rice to international markets, strengthening its position in global food trade.

Key Agricultural Developments Announced

- 184 improved crop varieties released by the Indian Council of Agricultural Research (ICAR).
- Crop-wise distribution:**
 - Cereals: 122
 - Pulses: 6
 - Oilseeds: 13
 - Fodder crops: 11
 - Sugarcane: 6
 - Cotton: 24
 - Jute: 1
 - Tobacco: 1
- Focus areas:**
 - High-yielding and climate-resilient seeds
 - Rapid delivery of quality seeds to farmers
 - Increased production of pulses and oilseeds for self-sufficiency
 - Marks the beginning of a new agricultural revolution in India



2. Rice Crop

- Rice is a staple food crop for more than half of the world's population.
- It is a Kharif crop, mainly grown during the monsoon season.
- India is:**
 - Largest producer and exporter of rice
 - A global leader in Basmati and non-Basmati rice

3. Geographical Conditions Required for Rice Cultivation

Climate

- Hot and humid climate

Temperature:

- **Ideal:** 20°C – 35°C
- Requires abundant sunshine during growth

Rainfall

- 100–200 cm annually
- Can also be grown using irrigation in low rainfall areas

Soil

- Clayey or loamy soils
- High water-retention capacity
- Fertile alluvial soils are ideal

Topography

- Flat plains and river valleys
- Terraced fields in hilly areas

4. Major Rice-Growing Regions in India

Top Rice-Producing States

- | | |
|----------------------------------|----------------|
| • West Bengal (largest producer) | • Tamil Nadu |
| • Uttar Pradesh | • Odisha |
| • Punjab | • Bihar |
| • Andhra Pradesh | • Chhattisgarh |
| • Telangana | • Assam |

River Basins Supporting Rice

- | | |
|--------------------------|------------------|
| • Ganga Basin | • Mahanadi Basin |
| • Brahmaputra Valley | • Cauvery Delta |
| • Godavari–Krishna Delta | |

5. Steps in Rice Cultivation (Rice Farming Process)

1. Preparation of Field

- Ploughing and leveling of land
- Fields flooded to soften soil
- Removal of weeds

2. Sowing

- **Two methods:**
 - Transplantation (most common)
 - Direct seeding
- Seeds first grown in nurseries (in transplantation)

3. Transplantation

- 20–30 day old seedlings transplanted to flooded fields
- Ensures better yield and plant spacing

4. Irrigation

- Standing water of 5–10 cm maintained
- Continuous water supply essential

5. Use of Manures and Fertilizers

- Organic manure (compost, green manure)
- Chemical fertilizers (NPK) for higher yield

6. Weed Control

- Manual weeding
- Use of weedicides where necessary

7. Harvesting

- Crop matures in 3–6 months
- Harvested when grains turn golden yellow
- Done manually or by combine harvesters

8. Threshing and Storage

- Grains separated from stalks
- Proper drying before storage to avoid pests

6. Importance of Rice in India

- Staple food for millions
- Major source of employment
- **Key contributor to:**
 - Food security
 - Export earnings
 - Rural economy

7. India's Global Role in Rice Production

Largest producer and exporter

- **Supplies rice to:**
 - Africa
 - Middle East
 - Southeast Asia
- **Known for high-quality Basmati rice**

QUESTIONS

21. Consider the following statements about **India's rice production**:

1. India has surpassed China to become the world's largest producer of rice.
2. India's rice production stands at approximately **145.28 million tonnes**.
3. India is the largest exporter of both **Basmati** and **non-Basmati rice**.
4. Rice is a **Kharif crop**, mainly grown during the monsoon season.

Which of the statements given above is/are correct?

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

22. Which of the following geographical conditions are ideal for rice cultivation?

1. Temperature between **20°C and 35°C**.
2. Clayey or loamy soil with high water retention.
3. **Heavy rainfall** of 300–400 cm annually.
4. Flat plains, river valleys, and terraced fields in hilly areas.

Select the correct answer using the code below:

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

23. Among the following crops, which one is the most important anthropogenic source of both methane and nitrous oxide?

- | | |
|-----------|--------------|
| A. Cotton | C. Sugarcane |
| B. Rice | D. Wheat |

24. Among the following, which one is the largest exporter of rice in the world in the last five years?

- | | |
|----------|------------|
| A. China | C. Myanmar |
| B. India | D. Vietnam |

25. Consider the following statements:

Statement-I: India is now the largest producer of rice, surpassing China.

Statement-II: India is the largest exporter of rice in the world.

Which one of the following is correct in respect of the above statements?

- Both Statement-I and Statement-II are correct and Statement-II explains Statement-I
- Both Statement-I and Statement-II are correct, but Statement-II does not explain Statement-I
- Statement-I is correct, but Statement-II is incorrect
- Statement-I is incorrect, but Statement-II is correct

6. Olive ridley nesting season begins in Andhra

- **Scientific name:** *Lepidochelys olivacea*
- **Common name:** Olive Ridley Sea Turtle
- **Conservation status:** Vulnerable (IUCN Red List)
- Olive ridley turtles are the smallest and most abundant sea turtles in the world.

- They are known for their mass nesting behavior, called “Arribada”, where thousands of females nest simultaneously on the same beach.

2. Importance of India for Olive Ridley Turtles

- India is one of the most important nesting and breeding grounds globally.
- The eastern coast of India, especially along the Bay of Bengal, supports large nesting populations.
- Indian beaches provide ideal sandy shores, temperature, and tidal conditions for nesting.



3. Major Nesting Sites in India

Key Nesting Regions

- **Odisha (world-famous):**
 - Gahirmatha Beach
 - Rushikulya River mouth
 - Devi River mouth
- **Andhra Pradesh:**
 - Visakhapatnam coastline
 - Anakapalli, Vizianagaram, Srikakulam
 - Krishna, Godavari, Nellore, Prakasam, and Bapatla districts
 - Tamil Nadu & West Bengal (limited nesting)

4. Nesting Season & Behavior

- **Nesting period:** December to April
- **Peak nesting:** January to March
- **Nesting pattern:**
 - Begins with small numbers
 - Peaks suddenly (mass nesting)
 - Gradually declines
- **Key nesting characteristics:**
 - Females usually come ashore during high tide
 - Nesting is influenced by lunar cycles and tides
 - Each turtle lays 100–150 eggs per nest
 - Eggs hatch after about 45–60 days

5. Breathing & Survival Needs

- Olive ridley turtles are air-breathing reptiles
- They must surface every 40–45 minutes to breathe
- If trapped in fishing nets, they cannot reach the surface and may drown
- This makes them highly vulnerable to mechanised fishing activities

6. Major Threats Faced by Olive Ridley Turtles

Human-Induced Threats

- Entanglement in fishing nets (trawlers & gill nets)
- Illegal fishing within restricted coastal zones
- Artificial lighting on beaches (confuses nesting turtles and hatchlings)
- Beach pollution & plastic waste
- Coastal development & tourism events

Natural Threats

- Predation of eggs by dogs, birds, and crabs
- Tidal flooding of nests

7. Impact of Artificial Lighting

- Bright lights disorient nesting females
- Hatchlings move toward artificial lights instead of the sea
- Darker beach stretches show higher nesting success
- **Conservationists recommend:**
 - Dimming streetlights near nesting zones
 - Using turtle-friendly lighting during nesting season

8. Conservation Efforts in India

Government & NGO Initiatives

- Marine Fishing Regulation Acts (restrict fishing near coast)
- Seasonal fishing bans during nesting months
- Creation of protected nesting zones
- Hatcheries managed by Forest Departments & NGOs
- Community awareness and volunteer beach patrols

Example: Andhra Pradesh

- Forest Department working with NGOs like The Tree Foundation
- Establishment of multiple hatcheries
- Special precautions during festivals and large events
- Burial of deceased turtles as per wildlife protocol

9. Ecological Importance of Olive Ridley Turtles

- Help maintain healthy marine ecosystems
- Control jellyfish populations
- Improve beach nutrient cycles through nesting
- Act as indicators of ocean health

10. Why Protecting Olive Ridley Turtles Matters

- They have existed for over 100 million years
- Slow reproduction makes population recovery difficult

- Loss of turtles affects marine biodiversity
- Protecting turtles also protects coastal ecosystems

QUESTIONS

26. Consider the following statements regarding **Olive Ridley Sea Turtles**:

1. The scientific name of the Olive Ridley Turtle is *Lepidochelys olivacea*.
2. Olive Ridley turtles are classified as **Endangered** on the IUCN Red List.
3. India is one of the most important global nesting grounds for Olive Ridley turtles, especially along the eastern coast.
4. The nesting season for Olive Ridley turtles in India spans from **June to September**.

Which of the statements given above is/are correct?

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

27. Consider the following statements regarding the **Olive Ridley Sea Turtles**:

1. Female Olive Ridley turtles usually come ashore during **high tide** to lay eggs.
2. Olive Ridley turtles can stay submerged for up to **10–12 hours** without breathing.
3. The **lunar cycle** and **tides** influence the nesting behavior of Olive Ridley turtles.
4. Olive Ridley turtles are highly vulnerable to **mechanised fishing activities**, which prevent them from surfacing to breathe.

Which of the statements given above is/are correct?

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

28. Which of the following statements about the **Olive Ridley Turtles** is/are correct?

1. They are the smallest and most abundant of all sea turtles found in the world.
2. They live in warm waters of the **Pacific, Atlantic, and Indian Oceans**.
3. The **Coromandel Coast** in India is the largest mass nesting site for the **Olive Ridley Turtles**.

Select the correct answer using the code below:

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

29. Which one of the following is the **national aquatic animal** of India?

- | | |
|------------------------|---------------------|
| A. Saltwater crocodile | C. Gangetic dolphin |
| B. Olive ridley turtle | D. Gharial |

30. The **Olive Ridley Turtles** are considered to be endangered because of their few remaining nesting sites in the world. In this context, which among the following statement(s) is/are correct?

1. Their peculiar behavior of synchronized nesting in mass numbers is known as **Arribada**.
2. **Gahirmatha Beach** in **Orissa** is one of their few nesting grounds in the world.

Select the correct answer using the code below:

- | | |
|-----------|--------------------|
| A. Only 1 | C. Both 1 and 2 |
| B. Only 2 | D. Neither 1 nor 2 |

7. Army signs deal to procure long-range rocket launchers Suryastra

- **Contract Signed:** Indian Army has signed a Rs. 292.69 crore contract with Pune-based NIBE Limited under emergency procurement (EP) powers.
- **International Collaboration:** The system is being developed in collaboration with Israel's Elbit Systems under a Technology Collaboration Agreement signed in July 2025.
- **System Details:** The rocket launcher system, named Suryastra, is India's first Made-in-India universal multi-calibre rocket launcher.
- **Strike Capability:** Capable of precision surface-to-surface strikes at 150 km and 300 km ranges.
- **High Accuracy:** Achieved a Circular Error Probable (CEP) of less than 5 metres during trials.
- **Multi-Role Capability:** Can engage multiple targets simultaneously at varying ranges and can also fire loitering munitions up to 100 km.
- **Operational Boost:** The acquisition significantly enhances the Indian Army's deep-strike artillery firepower and operational reach.
- **Emergency Procurement Framework:** Approved by the Defence Acquisition Council (DAC) on December 26, 2025, allowing contracts up to Rs. 300 crore without further clearances.
- **Delivery Timeline:** As per EP norms, deliveries will begin within six months and be completed within one year of contract signing.
- **Aatmanirbhar Bharat Push:** Marks the first domestic production of a high-precision rocket launcher with 300 km strike capability.
- **Future Developments:** DRDO is also developing extended-range Pinaka variants (120 km and 300 km), expected to be inducted in 3–5 years.



Pinaka Multi-Barrel Rocket Launcher (MBRL) system

- **Developed by:** DRDO (India)
- **Type:** Multi-barrel rocket artillery system
- **Purpose:** Long-range fire support for the Indian Army
- **Launcher:** Typically mounted on a truck; fires salvos of rockets quickly
- **Range (variants):**
 - **Pinaka Mk-I:** ~40 km
 - **Pinaka Mk-II / ER:** ~60–90 km (enhanced versions)
 - **Features:** High accuracy, fast deployment, can hit multiple targets in a short time
 - **Status:** In active service; also exported to other countries

QUESTIONS

31. Consider the following statements regarding **Suryastra**, the new rocket launcher system acquired by the Indian Army:

1. **Suryastra** is India's first **Made-in-India** universal multi-calibre rocket launcher.
2. It has a strike range of **150 km** and **300 km**, with a **Circular Error Probable (CEP)** of less than 5 metres.
3. The system is developed in collaboration with **Russia's Elbit Systems** under a Technology Collaboration Agreement.
4. The system's acquisition enhances India's deep-strike artillery firepower and operational reach.

Which of the statements given above is/are correct?

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

32. Consider the following statements about the **Pinaka Multi-Barrel Rocket Launcher (MBRL)** system:

1. The **Pinaka MBRL** is developed by **India's DRDO** and provides long-range fire support for the Indian Army.
2. The **Pinaka Mk-I** has a range of **40 km**, while the **Pinaka Mk-II/ER** has an enhanced range of **60–90 km**.
3. The **Pinaka system** is typically mounted on trucks and can fire multiple rockets in quick succession.
4. The **Pinaka Mk-II** is still in development and has not yet been inducted into the Indian Army.

Which of the statements given above is/are correct?

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

8. Saudi Arabia-UAE Rift over Yemen

- Saudi Arabia and the United Arab Emirates (UAE), once close allies in the Yemen war, are now facing their deepest rift in decades.
 - The conflict centers on opposing political visions for Yemen's future, especially over southern separatism.
 - The crisis escalated after Saudi airstrikes on Mukalla and the Southern Transitional Council (STC)'s push for independence.

Why Yemen Matters to Saudi Arabia and the UAE

- Yemen lies along critical maritime trade routes, including:

The Red Sea

- The Bab el-Mandeb Strait, vital for global shipping and energy supplies
- Stability in Yemen directly affects Saudi border security and Gulf regional influence.
- The war is also part of a broader Saudi-Iran regional rivalry.

1. Iran-Backed Houthis (North)

Control:

- Capital Sana'a
- Most of northern and western Yemen
- Provinces like Saada, Hajjah, and Al Hudaydah

Strengths:

- Most powerful and popular armed group
- Proven ability to withstand military strikes

Current role:

- Staying largely on the sidelines while Saudi- and UAE-backed forces clash

2. Saudi-Backed President Leadership Council (PLC)

- Internationally recognised government

Controls:

- Marib
- Hadramawt
- Al Mahrah

Backed by Saudi Arabia to:

- Maintain Yemen's territorial unity
- Protect Saudi security interests
- Facing setbacks as STC forces expand northward

3. UAE-Backed Southern Transitional Council (STC)

- Formed in 2017





- **Seeks:**
 - Autonomy or independence for southern Yemen
- **Controls:**
 - Aden
 - Lahj
 - Parts of Abyan
- **Recent actions:**
 - Seized territory in Hadramawt and Al Mahrah
 - Announced plans for an independence referendum within two years

4. Militant Groups

- Al Qaeda in the Arabian Peninsula (AQAP) and others
- Present in remote areas of Abyan and Shabwah
- Currently weakened but capable of exploiting instability

How the Yemen War Began

- **2015:** Saudi-led coalition formed to counter the Iran-backed Houthis
- Members included UAE, Bahrain, Kuwait, and Qatar (later sidelined)

Saudi Arabia:

- Led air operations

UAE:

- Led ground operations

Goal:

- Restore the internationally recognised government

The Roots of the Saudi-UAE Split

2019 Turning Point

- UAE scaled down its troops but continued backing the STC
- This undermined Saudi efforts to unify anti-Houthi forces
- UAE support strengthened southern separatism, complicating reconciliation

South Yemen:

- Formerly People's Democratic Republic of Yemen
- Only Communist Arab state

1990:

- Unified with North Yemen

1994:

- Southern secession attempt crushed by the northern government
- The STC wants to restore pre-1990 South Yemen
- Recent Escalation of the Crisis

December developments:

- STC rapidly expanded control in oil-rich eastern regions
- Saudi Arabia accused the UAE of supplying weapons to separatists

December 30:

- Saudi Arabia bombed Mukalla, citing a UAE weapons shipment

UAE response:

- Announced withdrawal of remaining troops from Yemen

STC:

- Declared intention to hold an independence referendum

34. Consider the following statements about the **Yemen War** and the roles of **Saudi Arabia** and the **UAE**:
1. Saudi Arabia led air operations, while the UAE led ground operations during the Yemen War.
 2. The UAE withdrew most of its troops in 2019, but continued to support the **Southern Transitional Council (STC)**.
 3. The conflict initially started in 2015 when a Saudi-led coalition was formed to counter the **Iran-backed Houthis**.
 4. The STC, backed by the UAE, advocates for the restoration of **South Yemen's** pre-1990 status as the **People's Democratic Republic of Yemen**.

Which of the statements given above is/are correct?

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

35. Consider the following statements regarding the **geography of Yemen**:

1. Yemen shares land borders with **Saudi Arabia** to the north and **Oman** to the northeast.
2. Yemen has maritime borders across the **Red Sea** and the **Gulf of Aden** with countries like **Djibouti**, **Eritrea**, and **Somalia**.
3. Yemen has direct maritime borders with **India** via the **Arabian Sea**.
4. Yemen is landlocked and does not have any maritime borders.

Which of the statements given above is/are correct?

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

36. Consider the following statements:

1. The **Red Sea** receives very little precipitation in any form.
2. No water enters the **Red Sea** from rivers.

Which of the statements given above is/are correct?

- | | |
|-----------|--------------------|
| A. 1 only | C. Both 1 and 2 |
| B. 2 only | D. Neither 1 nor 2 |

ANSWER KEY AND EXPLANATION

1. **A** 1 and 2 only

- Statement 1 is correct: Venezuela is located at the northern end of South America and has coastlines along the **Caribbean Sea** and the **Atlantic Ocean**.
- Statement 2 is correct: It shares land borders with **Guyana (east)**, **Brazil (south)**, and **Colombia (west and southwest)**.
- Statement 3 is incorrect: **Peru does not share a border with Venezuela**; Peru lies further south and is separated by Brazil and Colombia.

2. **B** Operation Absolute Resolve

- On 3 January 2026, the United States attacked Venezuela, capturing Venezuelan president Nicolás Maduro and his wife Cilia Flores. The attack, codenamed Operation Absolute Resolve, began around 2 am local time when explosions were observed.

3. **D** Statement-I is incorrect, but Statement-II is correct

- **Statement-I is incorrect.** Venezuela has not recently achieved a rapid recovery from its economic crisis. The country has faced a **prolonged socioeconomic collapse**, with hyperinflation, shortages of basic goods, and widespread poverty persisting for years. As a result, **millions of Venezuelans continue to flee the country in one of the largest migration crises in the world**, with millions seeking refuge in neighbouring countries due to economic hardship and insecurity.
- **Statement-II is correct.** Venezuela is recognised as having the **world's largest proven crude oil reserves**, estimated at around **300+ billion barrels**, surpassing those of Saudi Arabia and other major oil producers. These vast reserves are a key part of Venezuela's resource base, although production has fallen significantly due to mismanagement and sanctions. **Conclusion:** The correct option is **(D)** because the country has not recovered economically nor halted emigration (Statement-I is incorrect), but it does indeed possess the largest oil reserves globally (Statement-II is correct).

4. **B** Venezuela – Saudi Arabia – Iran – Canada

- The correct descending order is: Venezuela (~303 billion bbl) > Saudi Arabia (~267 billion bbl) > Iran (~209 billion bbl) > Canada (~163 billion bbl). Venezuela sits at the top of the global list of proven crude oil reserves, with about 303 billion barrels, followed by Saudi Arabia, Iran, Canada, Iraq, the UAE, Kuwait, Russia, the United States, and Libya in descending order of reserves. Venezuela's vast resource base accounts for nearly one-fifth of the world's total proven oil reserves, underlining its strategic importance in global energy geopolitics, and most of the leading reserve-holding countries are members of OPEC.

5. **A** Both Statement-I and Statement-II are correct and Statement-II explains Statement-I

- The United States is the world's largest oil producer, consistently leading production ahead of Saudi Arabia and Russia, primarily due to technological advancements like shale oil extraction (fracking). The U.S. produces around 22% of global oil, followed by Saudi Arabia and Russia, which each contribute about 11%.

6. **A** 1 and 3 only

- **Statement 1 is correct:** **Angel Falls**, the world's highest waterfall, is located in the **Guiana Highlands**.
- **Statement 2 is incorrect:** **Lake Maracaibo** is located in the northwestern part of Venezuela, not in the Llanos plains.
- **Statement 3 is correct:** The **Orinoco River system** is central to Venezuela's ecology, transport, and resource economy.

7. C Only four

- The **Andes Mountains** are the longest continental mountain range in the world and stretch along the western edge of South America. They pass through seven countries: **Venezuela, Colombia, Ecuador, Peru, Bolivia, Chile, and Argentina**. **Bolivia** – Yes, the Andes run through western Bolivia. **Brazil** – No, Brazil lies east of the Andes. **Colombia** – Yes, the Andes extend into Colombia. **Ecuador** – Yes, the Andes traverse Ecuador. **Paraguay** – No, Paraguay lies east of the Andes. **Venezuela** – Yes, the northernmost extensions of the Andes enter Venezuela.

8. A 1 and 2 only

- **Statement 1 is correct:** Article 2(4) establishes the general prohibition on the use of force.
- **Statement 2 is correct:** Article 51 allows self-defence only after an armed attack and subject to proportionality.
- **Statement 3 is incorrect:** Only the **UN Security Council**, not the General Assembly, can authorise collective military action.

9. A 1 and 3 only

- **Statement 1 is correct:** Non-colonisation was a core principle of the Monroe Doctrine (1823).
- **Statement 2 is incorrect:** The doctrine explicitly avoided interference in European affairs; military intervention authority emerged later under the Roosevelt Corollary.
- **Statement 3 is correct:** The US promised restraint from European conflicts.

10. B Only three

- Out of the listed countries, **Iraq, Turkey, and Afghanistan** share a land border with Iran. **Kuwait** and Georgia do not share a land border with Iran. Therefore, only three of the listed countries share a land border with Iran. Iran shares land borders with seven countries: Iraq, Turkey, Armenia, Azerbaijan, Turkmenistan, Afghanistan, and Pakistan, with maritime borders in the Persian Gulf and Gulf of Oman.

11. B 1 and 3 only

- **Statement 1 is correct:** The protests started over **economic hardship** and **expanded to anti-regime protests**.
- **Statement 2 is incorrect:** The **Iranian rial has fallen to a record low**, exacerbating inflation.
- **Statement 3 is correct:** The **Grand Bazaar** has historically been important for regime stability, and its involvement is a **major warning sign** for the regime.

12. A 1 and 2 only

- **Statement 1 is correct:** The **Strait of Hormuz** connects the **Persian Gulf** to the **Gulf of Oman**.
- **Statement 2 is correct:** The **northern coast** of the Strait is **Iran**, and the **southern coast** is shared by the **UAE** (Musandam Peninsula) and **Oman**.
- **Statement 3 is incorrect:** The **Musandam Peninsula** is an **exclave of Oman**, not part of the UAE.

13. B 1 and 3 only

- **Statement 1 is correct:** India and Iran signed a **10-year agreement** in May 2024 to develop Chabahar Port, replacing the previous one-year contract.
- **Statement 2 is incorrect:** **Shahid Beheshti terminal** was developed with **Indian assistance**, not Iranian assistance, and is part of the agreement for Indian operations.
- **Statement 3 is correct:** Chabahar Port provides India with **direct access** to **Afghanistan and Central Asia**, bypassing **Pakistan**, which is crucial for regional connectivity and countering China's Gwadar influence.

14. A 1, 3 and 4 only

- **Statement 1 is correct:** SMFCL is India's first **maritime-focused NBFC**.
- **Statement 2 is incorrect:** The **Union Minister of Ports, Shipping & Waterways (MoPSW)**, **Shri Sarbananda Sonowal** on 26 June 2025 inaugurated Sagarmala Finance Corporation Limited (SMFCL), India's first Non-Banking Financial Company (NBFC) in the maritime sector.
- **Statement 3 is correct:** SMFCL is focused on **bridging financing gaps in the maritime sector** and supports **Blue Economy** objectives.
- **Statement 4 is correct:** SMFCL will manage the **Maritime Development Fund** of Rs. 25,000 crore, with portions dedicated to **maritime investment** and **interest incentivisation**.

15. B 3 and 4 only

- **Statement 1 is incorrect:** NBFCs **cannot issue cheques** drawn on themselves.
- **Statement 2 is incorrect:** NBFCs **cannot accept demand deposits**; only banks are permitted to do so.
- **Statement 3 is correct:** NBFCs provide services like **loans, credit, leasing, and investment**.
- **Statement 4 is correct:** NBFCs are regulated by the **Reserve Bank of India (RBI)**.

16. B 1, 3 and 4 only

- **Statement 1 is correct:** The Sagarmala Programme was launched in **March 2015** to revolutionize India's maritime sector.
- **Statement 2 is incorrect:** The Sagarmala Programme also focuses on **coastal and waterway infrastructure** in addition to port modernization.
- **Statement 3 is correct:** The Sagarmala Programme is indeed a key pillar of **Maritime Amrit Kaal Vision 2047**, aligning with India's ambition to lead in maritime affairs.
- **Statement 4 is correct:** MAKV sets **ambitious targets**, including shipbuilding capacity and port handling to position India among the top maritime nations by 2047.

17. A 1, 2 and 4 only

- **Statement 1 is correct:** CRA integrates **biotechnology** and modern tools to **improve crop productivity** while reducing chemical inputs.
- **Statement 2 is correct:** CRA uses **biofertilizers, biopesticides, soil microbiome analysis, and AI-driven farm advisories** as key techniques. 51% of India's cultivated land is rainfed, producing 40% of food—making it highly climate-vulnerable.
- **Statement 3 is incorrect:** CRA seeks to **reduce the reliance on chemical fertilizers and pesticides**, not increase it.
- **Statement 4 is correct:** ICAR's **National Innovations in Climate Resilient Agriculture** project covers **448 villages**.

18. D 1, 2, 3 and 4

- All four initiatives mentioned are key **government programs** designed to **promote climate resilience** in agriculture, including sustainable farming, irrigation, organic farming, and innovations in climate-resilient agriculture (NICRA).

19. B 1, 2 and 4 only

- **Statement 1 is correct:** The **USDA** invests in **climate-smart agricultural practices** in the US.
- **Statement 2 is correct:** The **EU's Green Deal and Farm to Fork Strategy** promote sustainability and the **reduction of chemical use** in agriculture.

- **Statement 3 is incorrect:** China focuses on **climate-tolerant crops** and **water-saving irrigation**, but **not tropical crop research**.
- **Statement 4 is correct:** **EMBRAPA** in Brazil leads **tropical crop research** and develops **climate-resilient agricultural solutions**.

20. A 1 and 3 only

- **Statement 1 is correct:** NMSA aims at improving **productivity, sustainability, and climate resilience** in agriculture through integrated farming, soil health, and water management practices.
- **Statement 2 is incorrect:** **Per Drop More Crop (PDMC)** focuses on **precision irrigation** like **drip and sprinkler systems**, not rainwater harvesting.
- **Statement 3 is correct:** The **Soil Health Card Scheme** provides farmers with **soil nutrient status** and **fertilizer recommendations**.
- **Statement 4 is incorrect:** The **Rainfed Area Development Programme** focuses on **integrated farming systems** rather than **single crop production** to mitigate risks from climatic variability.

21. B 1, 3 and 4 only

- **Statement 1 is correct:** **India** is now the **largest producer** of rice, surpassing **China**.
- **Statement 2 is incorrect:** **India's rice production** is **150.18 million tonnes**, not **145.28 million tonnes**.
- **Statement 3 is correct:** **India** is the **largest exporter** of both **Basmati** and **non-Basmati rice**.
- **Statement 4 is correct:** **Rice** is a **Kharif crop**, grown mainly in the **monsoon season**.

22. D 1, 2 and 4 only

- **Statement 1 is correct:** Rice requires **temperatures between 20°C and 35°C**.
- **Statement 2 is correct:** **Clayey or loamy soils** with **high water retention** are ideal for rice cultivation.
- **Statement 3 is incorrect:** Rice requires **rainfall of 100–200 cm**, not 300–400 cm.
- **Statement 4 is correct:** **Flat plains** and **river valleys** are ideal for rice farming, with **terraced fields** used in hilly areas.

23. B Rice

- **Option B (Rice)** is the correct answer.
- **Methane** and **nitrous oxide** are potent greenhouse gases contributing significantly to **global warming**.
- **Rice fields** are one of the largest anthropogenic (human-caused) sources of **biogenic methane**, especially in flooded conditions.
- **Methane** is produced due to anaerobic (low oxygen) conditions in waterlogged rice paddies, where decomposing organic matter generates methane.
- **Nitrous oxide** is also released from rice fields due to the application of fertilizers and soil microbial processes.
- **Other anthropogenic sources** of methane include **cattle, animal waste, landfills, and biomass burning**.
- Rice cultivation, especially in flooded fields, is the **most important source** of both **methane** and **nitrous oxide** among the crops listed.

24. B India

- **India** is the correct answer.
- **India** has maintained its position as the **largest exporter of rice** in the world over the last five years, with a **share of 25-26%** in global rice exports from 2014 to 2018.
- **India emerged as the largest exporter in 2011-12**, overtaking **Thailand**, which had previously held the top spot.
- **India's dominance** in the rice export market has been driven by its **high production** of both **Basmati and non-Basmati rice**, which are in demand globally, especially in countries across **Africa, the Middle East, and Southeast Asia**.

25. B Both Statement-I and Statement-II are correct, but Statement-II does not explain Statement-I

- **Statement-I is correct:** **India** has become the **largest producer of rice**, surpassing **China**. India's rice production has been consistently higher than that of China in recent years, making it the world leader in rice production.
- **Statement-II is correct:** **India** is also the **largest exporter of rice** in the world, with a significant share of global rice exports (around 25-26%) over the past several years.
- However, **Statement-II does not explain Statement-I**. While India is the largest producer of rice, this does not necessarily mean it is the largest exporter because rice production and rice exports can be influenced by domestic consumption, government policies, and international market demand. India's position as the largest exporter of rice is a result of high production levels and global demand, but the two statements are independent of each other in terms of their explanations. Thus, the correct answer is **(B)**.

26. A 1 and 3 only

- **Statement 1 is correct:** The scientific name of the **Olive Ridley Turtle** is *Lepidochelys olivacea*.
- **Statement 2 is incorrect:** Olive Ridley turtles are classified as **Vulnerable**, not **Endangered**, on the IUCN Red List.
- **Statement 3 is correct:** India, especially along the **eastern coast**, plays a significant role as a **nesting ground** for these turtles.
- **Statement 4 is incorrect:** The **nesting season** in India spans from **December to April**, with the **peak nesting** occurring from **January to March**.

27. A 1, 3 and 4 only

- **Statement 1 is correct:** Female Olive Ridley turtles typically come ashore during **high tide** for nesting.
- **Statement 2 is incorrect:** Olive Ridley turtles are air-breathing reptiles and must surface every **40–45 minutes** to breathe, not **10–12 hours**.
- **Statement 3 is correct:** The nesting behavior of Olive Ridley turtles is influenced by **lunar cycles and tides**.
- **Statement 4 is correct:** Olive Ridley turtles are highly vulnerable to **mechanised fishing activities**, as being trapped in fishing nets prevents them from surfacing to breathe, leading to the risk of drowning.

28. B 1 and 2 only

- **Statement 1 is correct:** The **Olive Ridley Turtle** is indeed the **smallest and most abundant** species of sea turtle globally.
- **Statement 2 is correct:** Olive Ridley turtles are found in **warm waters** of the **Pacific, Atlantic, and Indian Oceans**. They are widely distributed across these oceanic regions.

- **Statement 3 is incorrect:** While the **Coromandel Coast** (mainly in **Odisha**) is an important nesting site for Olive Ridley turtles in India, the **largest mass nesting** site is actually located at **Gahirmatha Beach** in Odisha, not the **Coromandel Coast**. Thus, the correct answer is **(B) 1 and 2 only**.

29. C Gangetic dolphin

- **Gangetic Dolphin** is the **national aquatic animal** of India. It was declared as such due to its ecological significance and importance to India's river ecosystems, particularly the **Ganges, Brahmaputra, and Meghna** river systems.
- **Saltwater crocodile** (Option a) is a species found in coastal regions but is not India's national aquatic animal.
- **Olive Ridley Turtle** (Option b) is a marine turtle species known for its mass nesting but is not the national aquatic animal.
- **Gharial** (Option d) is a critically endangered species of crocodile found in India but is not the national aquatic animal. Thus, the correct answer is **(C) Gangetic dolphin**.

30. C Both 1 and 2

- **Statement 1 is correct:** The synchronized mass nesting of **Olive Ridley Turtles**, where thousands of female turtles come ashore simultaneously to lay eggs, is called **Arribada**. This unique behavior is one of the key characteristics of this species.
- **Statement 2 is correct:** **Gahirmatha Beach**, located in **Orissa**, is one of the **largest mass nesting sites** for **Olive Ridley Turtles** in the world. It is considered one of the most significant and protected nesting grounds for the species. Thus, both statements are correct, and the correct answer is **(C) Both 1 and 2**.

31. A 1, 2 and 4 only

- **Statement 1 is correct:** **Suryastra** is India's **first Made-in-India** universal multi-calibre rocket launcher.
- **Statement 2 is correct:** The launcher can perform **precision strikes** at **150 km** and **300 km** ranges with high accuracy (**CEP less than 5 meters**).
- **Statement 3 is incorrect:** The system was developed in collaboration with **Israel's Elbit Systems**, not **Russia**.
- **Statement 4 is correct:** The acquisition significantly enhances **India's deep-strike artillery firepower** and operational reach.

32. A 1, 2 and 3 only

- **Statement 1 is correct:** The **Pinaka MBRL** is developed by **DRDO** and provides long-range fire support.
- **Statement 2 is correct:** The **Pinaka Mk-I** has a range of approximately **40 km**, and the enhanced **Pinaka Mk-II/ER** has a range of **60–90 km**.
- **Statement 3 is correct:** The **Pinaka system** is mounted on trucks, and it is capable of **rapid rocket salvos**.
- **Statement 4 is incorrect:** **Pinaka Mk-II** is already in **active service** and has been inducted into the **Indian Army**.

33. C 1, 3 and 4 only

- **Statement 1 is correct:** The rift is indeed over **opposing views on southern separatism** and the political future of Yemen.
- **Statement 2 is incorrect:** Saudi Arabia backs the **President Leadership Council (PLC)**, while the UAE backs the **Southern Transitional Council (STC)**.

- **Statement 3 is correct:** Yemen's position along **critical maritime trade routes**, like the **Red Sea** and **Bab el-Mandeb Strait**, is vital for both countries' interests.
- **Statement 4 is correct:** The **STC**, with **UAE** backing, aims for **autonomy or independence** for southern Yemen and has proposed an **independence referendum**.

34. D 1, 2, 3 and 4

- **Statement 1 is correct:** **Saudi Arabia** led air operations, and the **UAE** led ground operations during the Yemen conflict.
- **Statement 2 is correct:** The **UAE** withdrew its troops in 2019 but **continued to back the STC** in Yemen.
- **Statement 3 is correct:** The war began in **2015** when the **Saudi-led coalition** was formed to counter the **Iran-backed Houthis**.
- **Statement 4 is correct:** The **STC**, supported by the **UAE**, advocates for the **restoration of South Yemen's** status as the **People's Democratic Republic of Yemen** before its unification in 1990.

35. A 1 and 2 only

- **Statement 1 is correct:** Yemen shares land borders with **Saudi Arabia** and **Oman**.
- **Statement 2 is correct:** Yemen has maritime borders across the **Red Sea** and **Gulf of Aden** with countries like **Djibouti**, **Eritrea**, and **Somalia**.
- **Statement 3 is incorrect:** Yemen does not have **direct maritime borders with India** via the **Arabian Sea**.
- **Statement 4 is incorrect:** Yemen is not landlocked and has important maritime borders. Thus, the correct answer is **(A) 1 and 2 only**.

36. C Both 1 and 2

- **Statement 1 is correct:** The **Red Sea** is known for its **low precipitation** due to the surrounding desert climate. The region experiences **arid conditions**, with very little rainfall, making the Red Sea a relatively dry area.
- **Statement 2 is correct:** The **Red Sea** is an **enclosed body of water**, and it does not receive significant water input from **rivers**. While some smaller streams may drain into the Red Sea, there are no large rivers like the Nile that provide a substantial freshwater contribution to the sea. Thus, the correct answer is **(C) Both 1 and 2**.