

**GS PAPER III ECONOMY**

**Exemption for Green Hydrogen Projects**

Recently, the Ministry of New and Renewable Energy (MNRE) has exempted export-oriented green hydrogen projects from its solar module shortlist of domestic manufacturers.

- **Objective:** To enable them to lower costs to the level of grey hydrogen.
- **Need:** Setting up renewable energy capacity is essential for the **production of green hydrogen** and contributes significantly to **project costs**.
- **Earlier Action:** The exemption for green hydrogen projects set up in special economic zones (SEZs) or export oriented units (EOUs) by **2030** from MNRE's Approved List of Models and Manufacturers (ALMM) was granted in May earlier this year.

**About Green Hydrogen Projects**

These are initiatives that aim to produce and use green hydrogen, a clean energy source that's made by splitting water with renewable electricity.

- Green hydrogen is a key part of the **global effort to limit global warming and reduce reliance on fossil fuels**.
- **About National Green Hydrogen Mission:** This mission was **approved in January 2023**.
- **Goal:** To make **India a global hub** for green hydrogen production, use, and export.
- It also aims to **develop supply chains** for transporting and distributing hydrogen.

**About Green Hydrogen**

Green Hydrogen refers to a hydrogen produced by the electrolysis of water, that is splitting water into hydrogen and oxygen using renewable electricity.

- **Aim:** To limit global warming to 1.5 degrees Celsius and reduce fossil fuel dependency by replacing green hydrogen.
- **Production:** Green hydrogen is traditionally produced from methane (CH<sub>4</sub>), split with steam into CO<sub>2</sub> (GreenHouse Gas) and H<sub>2</sub> (Hydrogen).
- **Applications:**
  - Used directly **as a fuel for internal combustion**
  - **Blended with natural gas** and used as fuel for **heat or power generation**
  - Used in the **hydrogen fuel cell to run vehicles**
  - Used in **Fertilizer and Steel Industries**

**Other different types of Hydrogen Production**

Following are the various different types of hydrogen:

- **Grey Hydrogen:** The most commonly used form of hydrogen today, derived from **natural gas** and typically uses fossil fuels as the energy source.
- **Blue Hydrogen:** Generated with the same process as grey hydrogen, but most of the carbon emitted during its production is **"captured"** and not released in the atmosphere.

**About Special Economic Zones (SEZs)**

- These areas **within a country have different business and trade laws** than the rest of the country.
- **SEZs are typically duty-free** and offer fiscal concessions.
- **Aim:** To increase trade, investment, and employment, and to promote exports.
- **SEZ policy in India was first implemented on April 1, 2000.**
- **About 64% of the SEZs are located in five states** – Tamil Nadu, Telangana, Karnataka, Andhra Pradesh and Maharashtra

**About Export Oriented Units (EOUs)**

- EOUs are a scheme of the Indian government **to promote exports and increase foreign exchange earnings**.
- **Establishment:** EOUs are established **under the provisions of the Foreign Trade (Development and Regulation) Act, 1992**, and the Export Import Policy.
- **Regulation:** These are regulated by the **Directorate General of Foreign Trade (DGFT)**

**Initiatives for Green Hydrogen Production In India**

- **National Green Hydrogen Mission, January 2023**
- **Green Hydrogen Policy, February 2022**
- **Strategic Interventions for Green Hydrogen Transition (SIGHT) Programme**
- **Exemption of Inter-State Transmission Charges**
- **India Hydrogen Alliance**

**GS PAPER III ECONOMY**

**India becomes Corn Importer**

India has recently become a net corn importer from being Asia's top corn exporter due to rising demand for corn since its push to make more corn-based ethanol.

- **The Year 2024:** As per the Trade Ministry Data, **India's corn imports surged to 531,703 tons** from just 4,981 tons a year earlier, **while exports fell 87% from 1.8 million tons to 241,889 tons** in the first half of the year.

**Reason For The Rising Imports**

- **Incentivising Corn for Ethanol Production:** The **procurement price** of ethanol made from corn was **hiked in Jan 2024 to replace sugarcane-based ethanol** for blending in gasoline
  - In 2024 uptill now, **around 3.5 million tons of corn has been used to make 1.35 billion litres of ethanol.**
- **Prioritize Domestic Sugar Consumption:** The Government has **suddenly curbed the use of sugarcane for ethanol following a drought** thus leading to a shortfall of 5 million tons
- **Squeezed Local Poultry Producers:** India's poultry producers **demand removal of import duties and lifting of the ban on genetically modified (GM) corn** as the prices of corn in the local market has risen affecting the feed cost.
  - **India allowed imports of around 500,000 tons at a concessional duty of 15%** which usually attract a 50% import duty.

**Impact of India becoming a Net Importer**

- **Scrambling Global Supply Chains:**
  - **Traditional export markets such as Vietnam, Bangladesh, Nepal, and Malaysia,** are now compelled to source supplies from other countries
    - **Vietnam** has cut down its imports of corn from India recently due to high prices in the Indian market
  - **Beneficiaries:** The rising prices has benefited the exporters, farmers and other stakeholders in the supply chain
  - **New Markets:** Starch makers are **bringing in duty-free corn from Ukraine through India's Advance License Scheme,** under which an equal amount of finished goods must be exported.
- **Support Global Prices:** Indian Imports are **likely to support global prices** which are trading near four-year lows.
  - **Example:** Indian demand has **lifted corn prices in Myanmar to around \$270 per metric ton,** from around \$220, encouraging farmers to plant more.
- **Inflation in Corn:** The major industries for corn (**poultry and starch**) are now **battling with distilleries** to secure supplies which is leading to a price rise due to increase in competition.

**About Corn/Maize**

- **Scientific name:** *Zea mays L.*
- **Native:** Central America and Mexico
- **Queen of Cereals:** Maize is known as the queen of cereals because it has the **highest genetic yield potential among the cereals.**
- **Types:** It has many types like, **normal yellow/ white grain, sweet corn, baby corn, popcorn, waxy corn,** high amylase corn, high oil corn, quality protein maize, etc.
- **Maize Production In India:**
  - India is the **fifth largest producer of Maize in 2020** as per FAO data and India's share in world production accounted for **2.59 per cent.**
    - **Production:** Corn accounts for approximately **10 percent of total food grain production in the country with Madhya Pradesh and Karnataka** having the highest area under production (15% each) followed by Maharashtra (10%)
    - **Exports:** The country has **exported 3,453,680.58 MT of maize** to the world in FY 2022-23 with major export destinations being, **Bangladesh, Vietnam, Nepal, Malaysia and Sri Lanka.**
  - **Usage:**
    - **Staple Food Consumption:** Maize in the form of Corn, Corn Flour etc is a source of Food for humans,
    - **Feed Stock:** An estimated **60% goes as feed for poultry birds** and livestock.
    - **Industrial use:** **14-15% of India's maize utilisation is for industrial purposes as it contains 68-72% starch** which has its applications in the **textile, paper, pharmaceutical, food and beverage industries.**
    - **Feedstock for Ethanol:** Maize is emerging as a feedstock for ethanol that is used for blending with petrol. Distilleries are considering the use of Maize to produce Ethanol in the off-season (May-October), when cane isn't available.

**About Ethanol**

- Ethanol is **anhydrous ethyl alcohol with the chemical formula C<sub>2</sub>H<sub>5</sub>OH**.
- **Sources:** Ethanol can be made from plants with high starch content with multiple feedstocks, including **sugarcane juice, molasses, damaged food grains, and agricultural residues**

**About Ethanol Blending Programme:**

- **Launch Date:** The Ethanol Blending Programme started in **January 2003**.
- **Objective:** To promote the use of **ethanol as an alternative fuel to conventional petrol**.
- **The E20 Target:** India aims to increase the share of **ethanol in gasoline to 20% by 2025-26**, from the **current 13% to curb carbon emissions**.
- **India needs more than 10 billion litres of ethanol**, which is double the volume the country produced in the marketing year ended October 2023.
- **Policy Support:**
  - **Differential Ethanol Pricing:** It aims to incentivise the ethanol production from various sources such as **sugarcane juice, B heavy molasses, c-heavy molasses, grains etc**.
  - **Interest Subvention Scheme:** It is a government initiative that aims to offer relief by providing subsidized interest rates on loans to increase productivity.
  - **Regulatory amendments:** Government allowed free movement of ethanol across various regions of India by doing amendments in the Industries (Development & Regulation) Act.

**GS PAPER 2 – GOVERNANCE – INCLUSIVE GROWTH AND ISSUES ARISING FROM IT**

**Global inequality is rising**

The article explains that global inequality is rising as labour income stagnates. AI and automation reduce labour’s share of income despite higher productivity. The ILO urges stronger policies to distribute technological benefits fairly and address inequality by 2030.

Why is Income Inequality a Concern?

**Reduced Labour Income Share:** AI and automation have boosted productivity but reduced the share of income earned by workers. From 2019 to 2022, the global labour income share fell by 0.6 percentage points.

**Pandemic Influence:** The COVID-19 pandemic caused 40% of this reduction, particularly from 2020 to 2022.

**Technological Innovation:** Over the past two decades, technological advancements have improved output, but these innovations have also lowered the share of labour income across 36 countries, as per the ILO study.

**Policy Response Needed:** Without strong policies to distribute technological benefits fairly, AI could further lower labour’s income share, worsening inequality.

**ILO’s Call for Action:** The ILO urges equitable distribution through policies like freedom of association and collective bargaining to counteract these negative impacts.

What Should be Done?

**Accelerate Progress on SDGs:** With the 2030 deadline approaching, slow progress on Sustainable Development Goals, especially reducing inequalities, needs urgent attention.

The ILO calls for policies that promote fair distribution of economic gains. These include freedom of association, collective bargaining, and effective labour administration to achieve inclusive growth.

**GS PAPER 2 – GOVERNANCE-ISSUES RELATING TO DEVELOPMENT AND MANAGEMENT OF SOCIAL SECTOR/SERVICES RELATING TO HEALTH**

**Challenges in Implementing the PM-ABHIM and HRHME Initiatives**

The article discusses challenges in utilizing Union Budget allocations for health initiatives like PM-ABHIM and HRHME. Issues include low fund utilization, faculty shortages, and the need for states to manage recurring costs. Effective outcomes depend on addressing these fiscal and structural challenges.

What are the Central Health Initiatives?

1. **Pradhan Mantri Ayushman Bharat Health Infrastructure Mission (PM-ABHIM):** Focuses on building health and wellness centers (AB-HWCs), block-level public health units (BPHUs), integrated district public health laboratories (IDPHLs), and critical care hospital blocks (CCHBs) in each district. It aims to prepare India for future health emergencies.
2. **Human Resources for Health and Medical Education (HRHME):** Aims to expand medical personnel by establishing new medical, nursing, and paramedical colleges. It also seeks to increase seats in existing institutions and upgrade district hospitals by linking them with newly established medical colleges.

**What are the Challenges in Implementing These Initiatives?**

1. **Low Fund Utilization:** PM-ABHIM used only 29% of its budget in 2022-23, and the Revised Estimate for 2023-24 was around 50%. HRHME saw a similar low utilization, with only about a quarter of the allocated funds used in both 2022-23 and 2023-24.
2. **Complex Funding Structures:** PM-ABHIM relies on the 15th Finance Commission's health grants for 60% of its resources, but only 45% of these grants were used from 2021-24 due to complex execution and hurdles in the States.
3. **Integration of Health Labs:** States struggled to integrate public health labs from different vertical programs, slowing down the implementation of the Integrated District Public Health Laboratories (IDPHLs) under PM-ABHIM.
4. **Construction Delays:** Rigid procedures and overlapping funding from different sources delayed construction projects like Block Public Health Units (BPHUs) and Critical Care Hospital Blocks (CCHBs).
5. **Faculty Shortages:** Over 40% of teaching faculty positions were vacant in newly created AIIMS, and in Uttar Pradesh, 30% of faculty positions were unfilled in government medical colleges.
6. **State Recurring Costs:** States will bear the recurring costs of maintaining health infrastructure beyond 2025, increasing their financial burden, as central support for human resources under PM-ABHIM ends in 2025-26.

**GS PAPER 3 – INDIAN ECONOMY -GROWTH, DEVELOPMENT AND EMPLOYMENT**

**World Bank's growth forecast for India**

The article discusses India's revised GDP growth forecast for 2024-25, now at 7%, and highlights the World Bank's concerns. It emphasizes the need for job creation, boosting trade, and addressing barriers to exports, investments, and foreign trade agreements.

**What is the World Bank's growth forecast for India?**

1. **2024-25 Growth Forecast:** The World Bank raised India's GDP growth forecast to 7%, up from its earlier estimate of 6.6%. This is in line with the projections of the International Monetary Fund and the Asian Development Bank but slightly lower than the 7.2% predicted by the Reserve Bank of India and Fitch Ratings.
2. **Global Economic Context:** Despite a weak global economy, with global growth expected to remain at 2.6%, India's economy is projected to perform strongly.
3. **Sectoral Growth:** Private consumption is expected to rise by 5.7%, and the agricultural sector is predicted to grow by 4.1%, which could help balance out a moderation in industrial growth.
4. **Challenges for Non-Farm Jobs:** While the **Production Linked Incentive schemes** support manufacturing, they may not generate enough jobs for India's young workforce. The Bank urges a rethink of strategies to create more non-farm employment opportunities.
5. **India's Trade Strategy:** India's global trade share does not reflect its economic size. The World Bank recommends reducing tariffs, non-tariff barriers, and foreign direct investment curbs. It also calls for revisiting India's stance on multilateral trade agreements like the **RCEP** to boost trade.

**PRELIM FACTS**

**1. Rajaji Tiger Reserve**

**Context:** Ahead of the hearing in the Supreme Court, the Uttarakhand government removed an Indian Forest Service officer from the office of Director of Rajaji Tiger Reserve.

**About Rajaji Tiger Reserve**

- **Location:** It is an Indian national park and tiger reserve spread over three districts of Uttarakhand: Haridwar, Dehradun and Pauri Garhwal.
- It is situated along the hills and foothills of the Shivalik ranges
- **Background:** In the year 1983, Rajaji Wildlife Sanctuary was merged with Motichur and Chilla wildlife sanctuaries and made into Rajaji National Park.
- It was named after the famous freedom fighter C. Rajgopalachari who's popularly known as "Rajaji"
- **Tiger Reserve Declaration:** It was declared a Tiger Reserve in 2015 as the 48th tiger reserve of the country.
- **Flora:** Diverse forest types ranging from semi-evergreen to deciduous and from mixed broad-leaved to Terai grassland
- **Sal (Shorea robusta)** is the characteristic dominant tree species.
- **Fauna:** It is known for its population of Tigers, Elephants, Leopards, and other wildlife species such as Spotted Deer, Barking Deer, Sloth bears etc.
- **Rivers:** The Ganga and Song rivers flow through this.

## 2. Project Strawberry

OpenAI plans to release its most powerful AI model, codenamed Project Strawberry, which could be integrated into ChatGPT-5.

### **About Project Strawberry:**

- It is being developed by OpenAI to enhance autonomous Internet research and dramatically improve AI reasoning capabilities.
- **Key Feature:**
  - Better math, programming and puzzle solving skills
  - Advanced levels of thinking
- **Potential Applications:**
  - **Autonomously conduct experiments**, analyze data, and come up with new hypotheses.
  - **Personalized education, creating educational content and interactive lessons.**
  - **Generation of high-quality training data** for OpenAI's next-frontier model, codenamed **Orion**.

## 3. Faster Adoption and Manufacturing of Electric Vehicles (FAME)

The government is expected to finalize the **third phase of its flagship electric mobility adoption scheme FAME** in the next two months.

### **About Faster Adoption and Manufacturing of Hybrid and Electric Vehicles (FAME)-III**

- **Continuation of Efforts:** It has been launched to address the issues faced in the first two phases of the FAME scheme.
- **Replacement of EMPS:** It will replace the temporary Electric Mobility Promotion Scheme (EMPS) 2024, expiring in September.
- **Follow-up to FAME-II:** FAME III builds up on FAME-II, which began in 2019. FAME II had an initial outlay of ₹10,000 crore and was extended to March 2024 with an additional ₹1,500 crore.
- **Target Support:** The initial target of the scheme was to support 10 lakh electric two-wheelers, 5 lakh electric three-wheelers, 55,000 electric passenger cars, and 7,000 electric buses.

### **About FAME Scheme:**

#### **FAME-I:**

- FAME India, part of the **National Electric Mobility Mission Plan**, aims to promote electric and hybrid vehicle adoption by providing upfront purchase incentives.
- The scheme began in 2015 and was completed on 31st March 2019, with an outlay of Rs 895 crore.
- This phase of FAME India Scheme had four focus areas i.e. technological development, demand generation, pilot project and charging infrastructure components.

#### **FAME-II**

- FAME was rolled out in **2019** with an initial outlay of **₹10,000 crore for three years**. It was later extended till 2024.
- This phase mainly focuses on supporting the **electrification of public & shared transportation** through demand incentives for eBuses, e-3 Wheelers, e-4 Wheeler Passenger Cars and e-2 Wheelers.

## 4.Exercise Varuna

A P8I aircraft of the Indian Navy has reached France to participate in 'Exercise Varuna' with the French Navy.

### **About Varuna Exercise:**

- It is the **bilateral Naval Exercise between India and France** which was initiated in **1993**.
- It was **named 'VARUNA' in 2001** and has become a hallmark of India France strategic bilateral relationship.
- The 2024 edition of Exercise Varuna, is scheduled in the **Mediterranean Sea**.
- It will include **advanced tactical exercises** underscoring the **deepening synergy and interoperability** between the two navies.
- Other **Indo-French Joint Exercises:**
  - Desert Knight-21 and Garuda (Air exercise)
  - Shakti (Army exercise)

## 5.Andaman and Nicobar Islands Integrated Development Corporation

The Andaman and Nicobar Islands Integrated Development Corporation (ANIIDCO) is leading a mega infrastructure project in Great Nicobar, promoted by NITI Aayog. This project includes a trans-shipment port, a greenfield airport, a tourism and township project, and a solar and gas-based power plant.

**1. About:** It is a quasi-government agency based in Port Blair. ANIIDCO was established on June 28, 1988, under the Companies Act 1956.

**2. Objective:** The key objective of the Corporation is holistic and sustainable development of the territory.

**3. Activities:** The activities include the trading of petroleum products, IMFL (Indian Made Foreign Liquor), and milk, along with the management of Megapode Resort, Dolphin Resort, and Hornbill Resort. It also focuses on infrastructure development in the sectors of tourism and fisheries.

**What is the Great Nicobar Island Development Project?**

The project involves a comprehensive Rs 72,000-crore infrastructure upgrade on Great Nicobar Island. It is being implemented by the Andaman and Nicobar Islands Integrated Development Corporation (ANIIDCO).

The project covers 16,610 hectares and aims to leverage the island's strategic location near the Malacca Strait. The Great Nicobar Island Development project includes developing an

1. An International Container Transshipment Terminal (ICTT)
2. A greenfield international airport
3. Two greenfield cities
4. A coastal mass rapid transport system
5. A free trade zone

**ANSWER WRITING**

**Q. Examine the role of the Aparajita Women and Child (West Bengal Criminal Laws Amendment) Bill, 2024 in combating sexual offences.**

The Aparajita Women and Child (West Bengal Criminal Laws Amendment) Bill, 2024 seeks to enhance punishments for sexual offences, particularly focusing on crimes against women and children. The Bill introduces stringent measures such as the mandatory death penalty for specific cases of rape and expedited investigations. It highlights West Bengal's legislative response to public outrage after a major criminal incident, aiming to strengthen legal frameworks and ensure faster justice.

**Role of the Aparajita Women and Child (West Bengal Criminal Laws Amendment) Bill in Combating Sexual Offences:**

- **Mandatory Death Penalty for Rape:** The Bill mandates the **death penalty** for rape resulting in death or a vegetative state, intensifying the deterrent effect.
- **Faster Investigation Timelines:** The Bill mandates that investigations into sexual offences be completed within **21 days**, aiming to expedite justice.
- **Victim Identity Protection:** The Bill strengthens the protection of victims' identities, proposing 3-5 years imprisonment for disclosure..
- **Special Courts for Sexual Offences:** The Bill proposes establishing **special courts** dedicated to sexual violence cases, expediting legal processes.
- **Strict Punishment for Minors' Sexual Exploitation:** The Bill targets cases involving sexual exploitation of **minors**, imposing harsher penalties and enhanced oversight.

**Shortcomings of the Aparajita Women and Child (West Bengal Criminal Laws Amendment) Bill:**

- **Excessive Focus on Punitive Measures:** The Bill prioritises punitive actions over rehabilitation and social reforms, neglecting deeper systemic issues.  
**For instance:** The **NCRB** shows a steady increase in sexual crimes despite harsher penalties, indicating the limited impact of purely punitive laws.
- **Potential Judicial Delays:** Establishing **special courts** may strain the existing judicial infrastructure, potentially leading to procedural delays.  
**For instance:** Fast-track courts introduced post-**Nirbhaya** cases faced similar delays due to the **overburdened legal system** and lack of resources.
- **Death Penalty Effectiveness:** The use of the death penalty as a deterrent has been widely debated, with limited evidence of its effectiveness.  
**For instance:** The **Verma Committee Report** highlighted that the death penalty does not substantially reduce sexual offences, calling for more nuanced solutions.
- **State-Central Conflict:** The Bill creates potential conflicts with central legislation, risking delayed implementation due to legal challenges.  
**For instance:** **Article 254** of the Indian Constitution necessitates Presidential assent for such amendments, complicating the law's enforceability.
- **Lack of Focus on Prevention:** The Bill does not adequately address preventive measures, such as education or public awareness campaigns on sexual violence.  
**For instance:** Programs like the **Beti Bachao Beti Padhao** focus on awareness and prevention, offering a more holistic approach to reducing such crimes.

**Way Ahead:**

- **Rehabilitation and Support Systems:** Introducing robust **rehabilitation** and psychological support systems for survivors will complement punitive measures.
- **Strengthening Legal Infrastructure:** Allocating more resources to **judicial infrastructure** is essential to reduce delays in handling sexual offence cases.  
**For example:** The **E-Courts project** by the Government of India aims to digitise the judiciary, enabling faster processing of cases.
- **Focus on Public Awareness and Education:** Awareness campaigns targeting schoolchildren and the general public can help reduce instances of sexual violence by addressing root causes.  
**For example:** The **Sakhi One Stop Centres** initiative provides education and awareness, empowering women to report crimes early.
- **Collaboration Between State and Central Governments:** Harmonising state laws with **central frameworks** ensures smoother implementation and avoids unnecessary conflicts.  
**For instance:** The successful alignment of **POCSO** with state initiatives in Kerala showcases the benefits of a collaborative approach.
- **Investment in Preventive Measures:** Introducing long-term preventive measures like self-defense training and gender sensitization in schools can help curb sexual violence.  
**For instance:** The **Delhi Police** conducts free **self-defence** training programs, which could be expanded nationwide for better preventive outreach.

The Aparajita Bill is a vital step toward addressing sexual violence in West Bengal, reflecting a legislative response to public outrage. However, effective implementation requires a balanced approach that combines punitive measures with rehabilitation, public awareness, and infrastructural support. A coordinated effort between the state and centre will ensure lasting protection for women and children, fostering long-term societal change and enhanced safety.

**MCQ**

1. Consider the following statements:  
Statement-I: Globally, there has been a decline in labour income.  
Statement-II: Many young people are not working, studying, or receiving training.  
Statement-III: Businesses across the globe are implementing automation technologies and artificial intelligence (AI) systems into their operations and processes.  
Which one of the following is correct in respect of the above statements?  
a) Both Statement-II and Statement-III are correct and both of them explain Statement-I  
**b) Both Statement-II and Statement-III are correct, but only one of them explains Statement-I**  
c) Only one of the Statements II and III is correct and that explains Statement-I  
d) Neither Statement-II nor Statement-III is correct
2. Consider the following statements:  
1. Brunei is one of the leading exporters of liquefied natural gas (LNG).  
2. The United States is Brunei's largest trading partner and investor.  
3. India has shifted its oil imports from Brunei to Russia in recent years.  
Which of the statement(s) given above is/are correct?  
a) 1 only  
b) 1 and 2 only  
c) 2 and 3 only  
**d) 1 and 3 only**
3. Which one of the following is a unique geographical feature of Rajaji Tiger Reserve?  
a) It is entirely located in the Himalayan mountains  
**b) It is bisected by the Ganges River flowing through it**  
c) It consists only of grassland habitats  
d) It has no elevation changes throughout the reserve
4. Consider the following statements:  
1. The navies of India and South Africa have signed an agreement to enhance cooperation in submarine rescue.  
2. The Deep Submergence Rescue Vehicle (DSRV) is a specialized vehicle capable of rescuing submarine crew members from depths of up to 650 meters.  
Which of the statement(s) given above is/are correct?  
a) 1 only  
b) 2 only  
**c) Both 1 and 2**  
d) Neither 1 nor 2
5. Consider the following statements:  
1. The 'creamy layer' refers to the more affluent members within a reserved category who may not need the benefits of reservation.  
2. According to Dr. Ambedkar, economic disparities is the primary source of graded inequality in India.

3. The Mahad satyagraha was led by Dr. B.R. Ambedkar.  
How many of the statements given above are correct?
- Only one
  - Only two**
  - All three
  - None
6. Consider the following statements:
- Pradhan Mantri Ayushman Bharat Health Infrastructure Mission (PM-ABHIM) aims to boost health preparedness by setting up health centers, public health units, and critical care hospital blocks in every district.
  - The Human Resources for Health and Medical Education (HRHME) programme seeks to increase the spending in healthcare by facilitating Public-Private Partnerships (PPP).
- Which of the statement(s) given above is/are correct?
- 1 only**
  - 2 only
  - Both 1 and 2
  - Neither 1 nor 2
7. Consider the following statements:
- Great Nicobar is a biodiversity hotspot with indigenous communities and is located in a seismically active region.
  - The Andaman and Nicobar Islands Integrated Development Corporation (ANIIDCO) is a quasi-government agency responsible for trading, managing tourism resorts, and developing infrastructure on the island.
- Which of the statement(s) given above is/are correct?
- 1 only
  - 2 only
  - Both 1 and 2**
  - Neither 1 nor 2
8. Consider the following statements:
- India and Singapore are members of a number of forums, including East Asia Summit, G20.
  - Singapore contributes around 10% of the global semiconductor output.
- Which of the statements given above is/are correct?
- 1 only
  - 2 only
  - Both 1 and 2**
  - Neither 1 nor 2
9. With reference to “Varuna Exercise” Consider following Statements
- It is the bilateral Naval Exercise between India and vietnam.
  - The 2024 edition of Exercise Varuna, is scheduled in the Arabian Sea.
  - It will include advanced tactical exercises underscoring the deepening synergy and interoperability between the two navies.
- How many of the above statement are correct
- only one**
  - Only two
  - All three
  - None of the above
10. What is the primary focus of OpenAI’s Project Strawberry?
- Creating an AI-based agricultural tool
  - Generating synthetic biology models for pharmaceutical research
  - Developing an advanced AI model with enhanced math, programming, and reasoning skills**
  - Addressing cybersecurity threats through AI