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**Daily Current Affairs**

**GEO IAS**

SOURCES



**Date: 1 May 2024**

### **Important News Articles**

1. Ravi Varma's painting- 'Indulekha'
2. AstraZeneca submission over COVID vaccine nothing new, say doctors - The Hindu
3. Mumps cases spike from 'almost zero' to 5-6 a week, low vaccination due to Covid a factor- The Indian Express
4. India, UK closer to pact on electric propulsion system for warships- Indian Express
5. Fertilizer subsidy in FY24 exceeds RE by ₹6,500 crore- The Hindu
6. Core sectors slid 5.2% in March- The Hindu
7. Microbes, not fossil fuels, produced most new methane: study - The Hindu

### **Editorials, Gists and Explainers**

8. Make EPI an 'Essential Programme on Immunisation' - The Hindu
9. The need for the use of labour statistics- The Hindu
10. Implementing the Street Vendors Act- The Hindu

### **Quick Look**

1. International Workers day
2. Self Driving cars
3. Peucetia chhaparajnrvin
4. Front-running:
5. Sell-Sell-Buy (SSB) trading patterN

## Important News Articles

### GS I

#### 1. Ravi Varma's painting- 'Indulekha'

**Relevance:** Indian culture will cover the salient aspects of Art Forms, literature and Architecture from ancient to modern times.

##### Prelims Takeaway

- Raja Ravi Varma
- Oiling painting

**News:**

- The first true copy of the painting Indulekha by legendary artist Raja Ravi Varma will be unveiled at the Kilimanoor Palace, where the eminent artist was born in 1848

**Raja Ravi Varma**

- It is considered the father of modern Indian art, as he combined Indian iconography with Western realism. His influence is seen in diverse fields such as art, literature, advertising, textiles, and comic books.
- Raja Ravi Varma, born into an aristocratic family in Kerala, started his professional art career at 22 and mastered oil painting.
- Varma was among the first Indian artists to use oil paints and is considered a representative of the Europeanised school of painting in India.
- Varma built his reputation through royal patronage, he received significant commissions from Maharana Fateh Singh and Sayajirao Gaekwad III.
- Works: Damayanti Talking to a Swan, Shakuntala Looking for Dushyanta, Nair Lady Adorning Her Hair, and Shantanu and Matsyagandha.
- Recognition: Kaiser-i-Hind Gold Medal by the British colonial government in 1904 and in 2013, a crater on the planet Mercury was named in his honour.

### GS II

#### 2. AstraZeneca submission over COVID vaccine nothing new, say doctors - The Hindu

**Relevance:** Issues Relating to Development and Management of Social Sector/Services relating to Health, Education, Human Resources.

##### Prelims Takeaway

- Thrombosis
- Thrombocytopenia syndrome

**News:**

- AstraZeneca admitted in U.K. court that its vaccine against COVID-19 has the potential to cause Thrombosis with Thrombocytopenia Syndrome.

**Highlights:**

- COVID-19 vaccine developed by Oxford AstraZeneca is sold under the brand name **Covishield** in India.
- In India, the product information with the vaccine clearly mentions **TTS in its special warnings and special precautions.**
  - A majority of the events occurred **within the first 21 days following vaccination**
- **Clotting was an issue for persons who were administered the first dose of the vaccine and in the first month afterwards.**
  - Therefore experts claim that in 2024, people are **not at risk of TTS.**
- The World Health Organisation (WHO) also wrote about it in 2021.
- The clotting side effect of this vaccine is already known and is **extremely rare.**
- This is not the first time AstraZeneca admits risk of clotting events **which are rarest side effect associated with COVID**

**Thrombosis with Thrombocytopenia Syndrome (TTS)**

- TTS is characterized by **blood clots (thrombosis)** combined with **low levels of platelets (thrombocytopenia),**

- Platelets also called **thrombocytes** are colorless blood cells that help in clotting of blood.
- Platelets **stop bleeding by clumping and forming plugs** in blood vessel injuries.
  - It often involves **unusual blood clot formations, such as in the brain or other parts of body.**
- Thrombocytopenia might occur as a result of a **bone marrow disorder or an immune system problem.** It can also be a **side effect of taking certain medications.**
- **Early recognition and treatment** are important for timely managing TTS effectively.

### 3. Mumps cases spike from 'almost zero' to 5-6 a week, low vaccination due to Covid a factor- The Indian Express

**Relevance:** Issues Relating to Development and Management of Social Sector/Services relating to Health, Education, Human Resources.

**News:**

- For the last two months, hospitals in the city have been witnessing five to six cases of **complications due to mumps** – a far cry from earlier when negligible cases were reported every year.

**Key Highlights:**

- Caused by **paramyxovirus**, a member of the **Rubulavirus family**, mumps usually affect the **parotid glands**, which make saliva, on each side of the face. The disease spreads through infected saliva.
- According to experts, a **drop in vaccination** rate due to the Covid-19 induced lockdown could be a major reason for the spike.
- The Centre provides vaccines to states only for measles and rubella and not for mumps.
- But during the pandemic, a major part of the population was left unvaccinated leading to compromised immunity.

**Mumps:**

- It is a contagious disease caused by a paramyxovirus.
- It affects the parotid glands, the ones on each side of the face to swell and they may also be tender or painful.
- It is an acute disease which infects children and young adults.
- Humans are the only known host for mumps virus, which is spread via direct contact or by airborne droplets from the upper respiratory tract of infected individuals.

**Symptoms:**

- After an incubation period of some 2 to 4 weeks mumps begins with non-specific symptoms such as headache and low-grade fever.
- Within days, these symptoms are followed by unilateral or bilateral swelling of the parotid salivary glands, with other salivary glands affected in 10% of cases.
- Normally mumps is a mild, self-limiting disease and disappears without sequelae.

**Treatment:**

- There is no specific treatment for mumps. The various symptoms may be relieved with medicines.
- The best way to protect kids is to make sure they're **immunised against mumps.**

#### Prelims Takeaway

- Indradhanush
- Vaccination
- Mumps

### 4. India, UK closer to pact on electric propulsion system for warships- Indian Express

**Relevance:** Bilateral, regional and global groupings and agreements involving India and/or affecting India's interests.

**News :**

- The Centre and the UK government are discussing the possibility of an agreement to develop an electric propulsion system in India to power domestic warships.
- Indian warships are currently powered by diesel engines, gas turbines or steam turbines.
- The electric propulsion capability is meant to power larger warships with a displacement of over 6,000 tonnes.

**Electric propulsion system**

#### Prelims Takeaway

- Electric propulsion

- The EPS is made up of four main components, including thruster components.
- The propellant used in EPS systems can be a liquid metal, a rare gas, or a conventional propellant, depending on the type of thruster.
- The thrusting fluid, which can be a gas, ion, or plasma, is energized by electric fields to accelerate.
- This can be done by directly heating the gas, using an electric field to accelerate ions, or using a magnetic field.
- Electric propulsion is not limited by energy, but only by the amount of electrical power available on the spacecraft.
- This makes it suitable for long-duration, low-thrust applications in spacecraft.
- Electric propulsion can also be used to power propeller blades on ships, which can increase efficiency and manoeuvrability.
- This technology could also reduce a ship's carbon footprint and increase the availability of electric power. India and the UK have recently set up a joint working group to explore electric propulsion for the navy

## GS III

### 5. Fertilizer subsidy in FY24 exceeds RE by ₹6,500 crore- The Hindu

**Relevance:** Issues related to Direct and Indirect Farm Subsidies  
**News:**

- The fertilizer subsidy in Fiscal Year 2023-24 (FY24) has exceeded Revised Estimates (RE) by over ₹6,500 crore.

#### Prelims Takeaway

- Fertilisers, NPK
- Urea Subsidies

#### Key Highlights:

- One possible reason for the increase in subsidy is the rise in **input cost and operations cost** mainly on account of an increase in natural gas prices. .
- Under nutrient-based subsidy (NBS) expenditure rose to more than ₹65,000 crore as against RE of more than ₹60,000 crore and Budget Estimate of ₹44,000 crore.
- Under the subsidy scheme, urea is provided to farmers at a statutorily notified maximum retail price (MRP).
- The difference between the delivered cost of urea at farm gate and net market realisation by the urea units is given as a subsidy to the urea manufacturer/importer by the government.

#### Fertilizer subsidy

- **Nutrient Based Subsidy Scheme:**
  - Nutrient Based Subsidy Programme for fertilizers was initiated in 2010.
  - Under the scheme, a fixed rate of subsidy (per kg basis) is announced for nutrients namely Nitrogen (N), Phosphate (P), Potash (K) and Sulphur (S) by the government on an annual basis.
  - It aims at ensuring the balanced use of fertilizers, improving agricultural productivity, promoting the growth of the indigenous fertilizers industry and also reducing the burden of Subsidy.
- **Neem-coated Urea:**
  - Urea coated with neem tree seed oil is called neem-coated urea.
  - The Department of Fertilisers has made it mandatory for all the domestic producers to produce 100% urea as Neem Coated Urea (NCU).
  - Benefits of NCU include:
    - Slow down the process of nitrification of urea
    - Enhance the yield
    - Decrease urea requirement, hence save money
- **New Urea Policy 2015:**
  - The New Urea Policy was released in May 2015.
  - The Policy seeks to:
    - Increase indigenous urea production,
    - Promote energy efficiency in urea production, and
    - Reduce subsidy burden on the Central government.

### Benefits of Nutrient Based Subsidies

- The CACP has recommended that bringing urea under the NBS regime would have several benefits for farmers, the government and the environment. Some of them are:
  - balanced use of fertilisers and improve soil health, crop productivity and quality. Proper use of NPK increased wheat yield by 25% compared to imbalanced use.
  - reduce the **cost of cultivation** for farmers by saving on input costs and increasing output returns.
  - reduce the subsidy burden on the government by rationalising the fertiliser pricing and subsidy mechanism..
  - encourage **innovation and efficiency** in the fertiliser industry by creating a level playing field for all fertiliser manufacturers.
  - Reducing supply-demand gaps and eliminating black marketing and hoarding.
  - reduce greenhouse gas emissions from agriculture by lowering nitrous oxide emissions from excessive urea use.

## 6. Core sectors slid 5.2% in March- The Hindu

**Relevance:** Indian Economy and issues relating to Planning, Mobilization of Resources, Growth, Development and Employment.

### Prelims Takeaway

- IIP
- DIPP

### News:

- India's eight core infrastructure sectors' output growth moderated to 5.2% in March from an upgraded 7.1% uptick in February, with high growth in Cement and Electricity production offset by contractions in fertilisers and refinery products.
- **Marked the first time in at least 12 years that all eight sectors had recorded annual growth**, led by double-digit upticks in steel and coal.

### Index of Industrial Production

- It is one of the Prime indicators of economic development for the measurement of trends in the behavior of Industrial Production
- It is computed and published by the Central Statistical Organisation (CSO) on a monthly basis.
- **Base Year:**
  - The current base year for the IIP series in India is 2011-12. The base year is always given a value of 100.

### Index of Eight Core Industries (ICI)

- ICI measures the collective and individual performance of production in selected eight core industries: Coal, Crude Oil, Natural Gas, Petroleum Refinery Products, Fertilisers, Steel, Cement and Electricity.
- The objective of the ICI is to provide an advance indication of production performance of industries of 'core' nature before the release of IIP by the Central Statistics Office.
- These industries are likely to impact general economic activities as well as industrial activities.
- The Index is compiled and released by the Office of the Economic Adviser (OEA), **Department of Industrial Policy & Promotion (DIPP), Ministry of Commerce & Industry, Government of India.**

### Significance:

- The core sector's performance is considered a key indicator of a country's overall industrial and economic performance.
- The core sector industries have significant interconnections with other sectors.
- This interdependence creates a multiplier effect, where changes in the core sector's growth or contraction impact the entire economy.
- Core industries are essential for developing a country's infrastructure.

- Production of steel, cement, and electricity is necessary for building roads, bridges, and power plants.
- The current weightage, of eight core industries is Petroleum Refinery Products (28.04%), Electricity (19.85%), Steel (17.92%), Coal (10.33%), Crude Oil (8.98%), Natural Gas (6.88%), Cement (5.37%), Fertiliser (2.63%).

## 7. Microbes, not fossil fuels, produced most new methane: study - The Hindu

**Relevance:** Conservation, Environmental Pollution and Degradation

**News:**

- A study has found methane emissions from fossil fuels declined between 1990 and the 2000s and have been stable since, whereas microbes have been producing more methane.

### Prelims Takeaway

- Methane
- Carbon-13

**Highlights:**

- Researchers examined the **concentration of methane** in the atmosphere and how it changed with time.
- Until the 1990s, **the concentration of methane increased**, then **stabilised for a bit**, and then **started to increase again around 2007**.
- According to recent estimates, **the atmospheric concentration of methane today is three-times what it was 300 years ago**.
- The study majorly focussed on finding out the source of methane emission. So they devised a method of analysing **carbon-13**.
  - If the methane is from **thermogenic sources, such as trapped fossil fuels or geological activities, there will be more carbon-13 atoms in 1,000 molecules compared to biological sources**.
- Both biogenic and thermogenic activities produce different isotopes of methane.
  - **Tracking the isotopes is a way to track which sources are the most active**.

**Methane Emissions:**

- Methane is the **second most abundant anthropogenic greenhouse gas** after carbon dioxide (CO<sub>2</sub>) but it warms the planet more.
- Methane has a global warming **potential 28-times greater than CO<sub>2</sub>**, and even higher over shorter periods like two decades.
- Scientists are increasingly recognising **various sources of methane**, most of which fit in two categories: biogenic and thermogenic.
  - **When fossil fuels such as natural gas or oil are extracted from deep within the earth's crust, thermogenic methane is released**.
  - **Biogenic methane comes from microbial action**.
- The microbes that produce methane are **archaea which are single-celled microorganisms and are called methanogens**.
  - They thrive in **oxygen-deficient environments**, such as the digestive tracts of animals, wetlands, rice paddies, landfills, and the sediments of lakes and oceans.
- Methanogens play a **crucial role in the global carbon cycle** by converting organic matter into methane.
  - While **methane is a potent greenhouse gas, its production by methanogens is an essential part of natural ecosystems**.
  - But human activities like **agriculture, dairy farming, and fossil fuel production** have further increased methane emissions.

## Editorials, Gists and Explainers

### 8. Make EPI an 'Essential Programme on Immunisation' - The Hindu

**Relevance:** Government Policies and Interventions

**News:**

- 2024 marks 50 years since the launch of the Expanded Programme on Immunization (EPI) by the World Health Organization (WHO).

<p><b>Expanded Programme on Immunization:</b></p> <ul style="list-style-type: none"> <li>• The EPI was introduced as the eradication of smallpox virus was on the horizon, and there was a need to leverage the immunisation infrastructure and train workforce to expand the benefit of available vaccines. <ul style="list-style-type: none"> <li>◦ Following the announcement of EPI nearly every country across the world initiated its national immunisation programme.</li> </ul> </li> <li>• India launched the EPI in 1978, which was later renamed as the Universal Immunization Programme (UIP) in 1985.</li> <li>• Globally, and in India, there has been significant progress in terms of the impact of immunisation and vaccines.</li> </ul> <p><b>Success of EPI:</b></p> <ul style="list-style-type: none"> <li>• Studies have shown that since the launch of EPI vaccines have saved millions of lives and prevented billions of hospital visits and hospitalisations. <ul style="list-style-type: none"> <li>◦ Economic analyses have estimated that vaccines are highly cost-effective interventions.</li> <li>◦ Every single dollar (or rupee) of expenditure on vaccination programmes ensures a seven to 11-fold return.</li> </ul> </li> <li>• Smallpox has been eradicated, polio also eliminated from all but two countries and many vaccine preventable diseases have nearly disappeared.</li> <li>• In India, the coverage has increased every passing year and in 2019-21, 76% of children received the recommended vaccines.</li> <li>• In India, the share of the private sector in overall health services is nearly two third. However, nearly 85% to 90% of all vaccines are delivered from government facilities.</li> </ul>	<p><b>Challenges of immunisation:</b></p> <ul style="list-style-type: none"> <li>• UNICEF's 'The State of the World's Children' report revealed that for the first time in more than a decade, the childhood immunisation coverage had declined in 2021.</li> <li>• In 2022, globally, an estimated 14.3 million children did not receive any recommended vaccine while another 6.2 million children were partially immunised.</li> <li>• Over the years, the vaccination coverage in India has increased, both nationally and State-wise. <ul style="list-style-type: none"> <li>◦ However, there are persisting inequities in coverage by geography, socio-economic strata and other parameters, which demand urgent interventions.</li> </ul> </li> <li>• There are also misconceptions among people that the vaccines are only for children.</li> </ul> <p><b>Way forward:</b></p> <ul style="list-style-type: none"> <li>• There are initial policy and technical discussions regarding expanding immunisation coverage in additional populations. <ul style="list-style-type: none"> <li>◦ The recent announcement on HPV vaccines for teenage girls is a good start.</li> <li>◦ However, the Indian government needs to consider providing recommended vaccines for a wider section of adults and elderly population.</li> </ul> </li> <li>• NTAGI, which provides recommendations on the use of vaccines should start providing recommendations on the use of vaccines in adults and the elderly.</li> <li>• The prevailing myths and misconceptions about vaccines must be proactively addressed to tackle vaccine hesitancy.</li> <li>• Various professional associations of doctors should work to increase awareness about vaccines among adults and the elderly.</li> <li>• Medical colleges and research institutions should generate evidence on the burden of diseases in the adult population in India.</li> </ul>
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### 9. The need for the use of labour statistics- The Hindu

**Relevance:** Effects of Liberalisation on the Economy, Changes in Industrial Policy and their Effects on Industrial Growth.

**Context:**

- The debate on changing labour laws in India (labour reforms) is heating up, but there's a problem: not enough hard data is being used to guide decisions.

<p><b>Key highlights</b></p> <ul style="list-style-type: none"> <li>• <b>Empty Talk at Conferences:</b> The Indian Labour Conference, meant to bring together different groups to discuss labour issues, is being criticized for lacking real analysis and becoming just a place for empty talk.</li> <li>• <b>Data Deficiencies:</b> India's labour statistics are weak, missing crucial information on how worker relations and the job market actually function.</li> <li>• <b>Flawed Arguments for Change:</b> Businesses and some academics are pushing for reforms based on unreliable stories and bad research, potentially leading the government to make policy changes without proper evidence.</li> </ul>	<p><b>How to Fix It: More Data, More Voice for Workers</b></p> <ul style="list-style-type: none"> <li>• <b>Unions Need Data Power:</b> Trade unions, which represent workers, should focus on collecting solid data on workplace inspections, factory closures, and strikes.</li> <li>• <b>Numbers Talk:</b> Unions need to use labour statistics to advocate for worker rights and have a stronger voice in policy discussions.</li> <li>• <b>Teaming Up with Experts:</b> Unions should partner with universities to conduct research on labour relations and the job market.</li> </ul>
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## 10. Implementing the Street Vendors Act- The Hindu

**Relevance:** Government policies and interventions for development in various sectors and issues arising out of their design and implementation.

**Context :**

- A decade has passed since the Street Vendors (Protection of Livelihood and Regulation of Street Vending) Act came into effect on May 1, 2014
- It marks a significant milestone after nearly four decades of legal jurisprudence and the tireless efforts of street vendor movements across India.

### Provisions of the law

- Street vendors, estimated to constitute 2.5% of any city's population, play multifaceted roles in city life.
- The Act clearly delineates the roles and responsibilities of both vendors and various levels of government.
- It recognises the positive urban role of vendors and the need for livelihood protection.
- It commits to accommodating all 'existing' vendors in vending zones and issuing vending certificates.
- The Act establishes a participatory governance structure through Town Vending Committees (TVCs)
- Additionally, the Act outlines mechanisms for addressing grievances and disputes, proposing the establishment of a Grievance Redressal Committee chaired by a civil judge or judicial magistrate.

### Three broad challenges

- However, the Act has faced three broad challenges. First, at the administrative level,
  - There has been a noticeable increase in harassment and evictions of street vendors, despite the Act's emphasis on their protection and regulation.
- This is often due to an outdated bureaucratic mindset that views vendors as illegal entities to be cleared.
- There is also a pervasive lack of awareness and sensitisation about the Act among state authorities, the wider public, and vendors themselves.
- Second, at the governance level, existing urban governance mechanisms are often weak.
  - The Act does not integrate well with the framework established by the 74th Constitutional Amendment Act for urban governance.
- ULBs lack sufficient powers and capacities, Schemes like the Smart Cities Mission, laden with resources and pushed through as policy priorities from the top-down
  - Mostly focus on infrastructure development and ignore the provisions of the Act for the inclusion of street vendors in city planning.
- Third, at the societal level, the prevailing image of the 'world class city tends to be exclusionary.
- It marginalises and stigmatises street vendors as obstacles to urban development instead of acknowledging them as legitimate contributors to the urban economy.

### The way forward

- PM SVANidhi, a micro-credit facility for street vendors, has been a positive example in that direction.
- There is a strong need to decentralise interventions, enhance the capacities of ULBs to plan for street vending in cities, and move away from high-handed department-led actions to actual deliberative processes at the TVC level.
- The Act now faces new challenges such as the impact of climate change on vendors, a surge in the number of vendors, competition from e-commerce, and reduced incomes.
- The Act's broad welfare provisions must be used creatively to meet the emerging needs of street vendors.
- The sub-component on street vendors in the National Urban Livelihood Mission needs to take cognisance of the changed realities and facilitate innovative measures for addressing needs.
- The case of the Street Vendors Act highlights the complex interplay of contestation over space, workers in urban areas, and governance, offering valuable lessons for future lawmaking and implementation.

## Quick Look

### 1. International Workers day

- International Workers' Day, also known as Labour Day in some countries and often referred to as May Day
- IT is a celebration of labourers and the working classes that is promoted by the international labour movement and occurs every year on 1 May
  - or the first Monday in May.
- Traditionally, 1 May is the date of the European spring festival of May Day.
- In 1889, the Marxist International Socialist Congress met in Paris and established the Second International as a successor to the earlier International Workingmen's Association.

### 2. Self Driving cars

- A self-driving car (sometimes called an autonomous car or driverless car) is a vehicle that uses a combination of sensors, cameras, radar and artificial intelligence
  - (AI) to travel between destinations without a human operator.
- To qualify as fully autonomous, a vehicle must be able to navigate without human intervention to a predetermined destination over roads
  - That have not been adapted for its use.

### 3. Peucetia chhaparajirvin

- It is a new species of green lynx spider.
- The spider was found in Tal Chhapar Wildlife Sanctuary in Churu district of Rajasthan.
- The spider species has been named Peucetia chhaparajirvin after the area in Rajasthan, Tal Chhapar, where it was discovered.
- This spider is found on the green leaves of the Vachellia nilotica (babul) tree.
- Their green hue aids in blending with their surroundings and ambushing prey, while their long legs allow them to move quickly.
- This spider is nocturnal and feeds on small insects.

### 4. Front-running:

- It is when a broker or an investor joins a trade because they have pre-existing non-public information concerning a significant transaction that may change the asset's price, equity, or derivative to obtain economic benefits.
- It is also known as forward-trading or tailgating.
- It is illegal in India.
- Front-running can occur in various forms and contexts, including the stock market, commodities market, and other financial markets.
- The strategies commonly used to front-run trades are the Buy-Buy-Sell (BBS) trading pattern and the Sell-Sell-Buy (SSB) trading pattern.

### 5. Sell-Sell-Buy (SSB) trading pattern

- In this trading pattern, the alleged front-runner by using the non-public information regarding an impending sell order of the big client
  - Places his sell orders before the big client's sell order.
- When the big client places a sell order the price of the security falls which allows the alleged front-runner to buy back the securities
  - At a lower price to meet his obligations which he had created earlier by selling securities.

## Prelims Track Question

**Q1. Consider the following statement:**

**Statement I:** The Indian Renaissance was a socio-intellectual revolution in the 19th century that marked a revival of Indian culture, traditions, and knowledge systems.

**Statement II:** Raja Ram Mohn Roy is widely regarded as the father of Indian renaissance

**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 is the correct explanation for Statement-I
- B. Both Statement-I and Statement-II are correct and Statement-II is not the correct explanation for Statement-I
- C. Statement-I is correct but Statement-II is incorrect
- D. Statement-I is incorrect but Statement-II is correct

**Q2. Consider the following statement regarding Thrombocytopenia Syndrome (TTS)**

1. It is characterised by blood clots formation combined with low levels of platelets
2. It involves unusual blood clot formations, such as in the brain or other parts of body.
3. It can be a side effect of taking certain medications.

**How many of the above statements is/are correct**

- A. Only one
- B. Only two
- C. All three
- D. None

**Q3. Project Indradhanush, launched by the Government of India, primarily focuses on:**

1. Strengthening immunisation coverage by targeting unvaccinated and partially vaccinated children and pregnant women
2. Universal Immunisation Programme (UIP) provide free vaccines against 15 life threatening diseases
3. A flagship scheme under Gram Swaraj Abhiyan and Extended Gram Swaraj Abhiyan.

**How many of the above statements is/are correct?**

- A. Only one
- B. Only two
- C. All three
- D. None

**Q4. Consider the following statement:**

**Statement I:** Indian warships are currently powered by diesel engines, gas turbines or steam turbines.

**Statement II:** The electric propulsion capability is meant to power larger warships with a displacement of over 6,000 tonnes.

**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 is the correct explanation for Statement-I
- B. Both Statement-I and Statement-II are correct and Statement-II is not the correct explanation for Statement-I
- C. Statement-I is correct but Statement-II is incorrect
- D. Statement-I is incorrect but Statement-II is correct

**Q5. Which of the following statements regarding fertilisers and agriculture in India is/are correct?**

1. India is the world's largest producer of fertilisers
2. The Government of India implements various schemes and subsidies to promote the balanced use of fertilisers and enhance agricultural productivity.
3. The Green Revolution in India, spearheaded by the introduction of high-yielding varieties of seeds, significantly reduced the country's reliance on fertilisers for agricultural production.
4. Soil health cards, issued under the Soil Health Card Scheme, provide farmers with personalised recommendations on soil nutrient management, aiding in judicious fertiliser application.

**How many of the above statements is/are correct?**

- A. Only one
- B. Only two
- C. All three
- D. All four

**Q6. Which of the following statements regarding India's core sector performance and related indices are correct?**

1. The Index of Industrial Production (IIP) is calculated by the Central Statistical Organisation (CSO) with 2011-12 as the base year.
2. The Index of Eight Core Industries (ICI) is released by DIPP under the Ministry of Commerce & Industry
3. Electricity carries the highest weightage in the Index of Eight Core Industries (ICI), reflecting their substantial impact on the Indian economy.

**How many of the above statements is/are correct?**

- A. Only one
- B. Only two
- C. All three
- D. None

**Q7. Consider the following statements regarding Methane**

1. Methane has a global warming potential lesser than CO<sub>2</sub>
2. Biogenic methane emission comes from fossil fuels such as natural gas or oil
3. Methane is produced by archaea which are single celled organisms

**How many of the above statements is/are correct**

- A. Only one
- B. Only two
- C. All three
- D. None

**Q8. Consider the following statements regarding Expanded Programme on Immunization (EPI)**

1. It was launched by the World Economic Forum.
2. Due to EPI there has been significant progress in terms of the impact of immunisation and vaccines.
3. In India, the coverage of immunisation has been decreasing every passing year.

**How many of the above statements is/are correct**

- A. Only one
- B. Only two
- C. All three
- D. None

**Q9. Which of the following statements regarding the International Labour Organization (ILO) is/are correct?**

1. The ILO is a specialized agency of the United Nations, founded in 1919, and headquartered in Geneva, Switzerland.
2. The primary goal of the ILO is to promote social justice and internationally recognized human and labour rights, including the right to decent work for all.
3. The ILO is solely designed to represent the interests of employers.

**How many of the above statements is/are correct?**

- A. Only one
- B. Only two
- C. All three
- D. None

**Q10. Consider the following Statements regarding PM-SVANidhi**

1. It is a Central Sector Scheme fully funded by Ministry of Housing and Urban Affairs
2. its main objective is to facilitate working capital loan and to incentivize regular repayment; and
3. Microfinance Institutions, Non-Banking Financial Company, Self Help Groups are lending agencies.

**How many of the above statements is/are correct?**

- A. Only one
- B. Only two
- C. All three
- D. None

## Prelims Track Answer

### Answer 1 Option B is correct

#### Explanation

- The Indian Renaissance was a socio-intellectual revolution in the 19th century that marked a revival of Indian culture, traditions, and knowledge systems. It was a time of change in the fields of literature, philosophy, politics, and science. The Renaissance was a way to stem the decline of values in society and to rethink the relationship between politics and culture. It was also a pre-political phase of the anti-colonial struggle, in which Indians were preparing for participation in a more progressive and radical political program. **HENCE BOTH THE STATEMENTS ARE CORRECT**

### Answer 2 Option C is correct

#### Explanation:

- TTS is characterized by blood clots formation which is also called thrombosis combined with low levels of platelets called as thrombocytopenia. **Statement 1 is correct.**
- Platelets also called thrombocytes are colorless blood cells that help in clotting of blood. Platelets stop bleeding by clumping and forming plugs in blood vessel injuries.
- It often involves unusual blood clot formations, such as in the brain or other parts of the body. **Statement 2 is correct.**
- Thrombocytopenia might occur as a result of a bone marrow disorder or an immune system problem. It can also be a side effect of taking certain medications. **Statement 3 is correct.**
- Early recognition and treatment are important for timely managing TTS effectively.

### Answer 3 Option B is Correct

#### Explanation:

- Project Indradhanush, launched by the Government of India, primarily focuses on strengthening immunisation coverage by targeting unvaccinated and partially vaccinated children and pregnant women against seven vaccine-preventable diseases. **Statement 1 is correct.**
- Mission Indradhanush was also identified as one of the flagship schemes under Gram Swaraj Abhiyan and Extended Gram Swaraj Abhiyan. **Statement 3 is correct.**

- Universal Immunisation Programme (UIP) provides free vaccines against 12 life threatening diseases. **Statement 2 is INCORRECT.**

### Answer 4 Option B is correct

#### Explanation

- Indian warships are currently powered by diesel engines, gas turbines or steam turbines.
- The electric propulsion capability is meant to power larger warships with a displacement of over 6,000 tonnes.
- The EPS is made up of four main components, including thruster components.
- The propellant used in EPS systems can be a liquid metal, a rare gas, or a conventional propellant, depending on the type of thruster.
- The thrusting fluid, which can be a gas, ion, or plasma, is energized by electric fields to accelerate.
- This can be done by directly heating the gas, using an electric field to accelerate ions, or using a magnetic field.
- Electric propulsion is not limited by energy, but only by the amount of electrical power available on the spacecraft. **Hence both the statements are correct**

### Answer 5 Option B is Correct

#### Explanation:

- India is the world's second-largest producer of fertilisers, and fertiliser usage plays a crucial role in the country's agricultural output. **Statement 1 is INCORRECT.**
- The Government of India does implement various schemes and subsidies to promote the balanced use of fertilisers and enhance agricultural productivity. **Statement 2 is correct.**
- Green Revolution in India, while significantly increasing agricultural productivity, did not reduce the country's reliance on fertilisers; instead, it led to **increased fertiliser usage** to support high-yielding crop varieties, not reduced. **Statement 3 is INCORRECT.**
- Soil Health Card Scheme provides farmers with personalised recommendations on soil nutrient management, facilitating judicious fertiliser application and thereby enhancing agricultural sustainability. **Statement 4 is correct.**

## Answer 6 Option B is Correct

### Explanation:

- Index of Industrial Production (IIP) serves as a monthly indicator of industrial trends, calculated by the Central Statistical Organisation (CSO) with 2011-12 as the base year. **Statement 1 is correct.**
- Index of Eight Core Industries (ICI) is indeed compiled and released by the Office of the Economic Adviser (OEA) in DIPP, to provide advance indications of production performance before the release of the IIP. **Statement 2 is correct.**
- Petroleum Refinery Products, carries the highest weightage in the Index of Eight Core Industries (ICI). **Statement 3 is INcorrect.**

## Answer 7 Option A is correct

### Explanation:

- Methane is the second most abundant anthropogenic greenhouse gas after carbon dioxide (CO<sub>2</sub>) but it warms the planet more.
- Methane has a global warming potential 28-times greater than CO<sub>2</sub>, and even higher over shorter periods like two decades. **Statement 1 is incorrect.**
- Scientists are increasingly recognising various sources of methane, most of which fit in two categories: biogenic and thermogenic.
- When fossil fuels such as natural gas or oil are extracted from deep within the earth's crust, thermogenic methane is released. Biogenic methane comes from microbial action. **Statement 2 is incorrect.**
- The microbes that produce methane are archaea which are single-celled microorganisms and are called methanogens. **Statement 3 is correct.**

## Answer 8 Option A is correct

### Explanation:

- Expanded Programme on Immunization (EPI) was launched by the World Health Organization (WHO) in 1974. **Statement 1 is incorrect.**
- The EPI was introduced as the eradication of smallpox virus was on the horizon, and there was a need to leverage the immunisation infrastructure and train workforce to expand the benefit of available vaccines.

- Following the announcement of EPI nearly every country across the world initiated its national immunisation programme.
- Globally, and in India, there has been significant progress in terms of the impact of immunisation and vaccines. **Statement 2 is correct.**
- In India, the coverage has increased every passing year and in 2019-21, 76% of children received the recommended vaccines. **Statement 3 is incorrect.**

## Answer 9 Option B is Correct

### Explanation:

- International Labour Organization (ILO) is indeed a specialized agency of the United Nations, established in 1919, with its headquarters in Geneva, Switzerland. **Statement 1 is correct.**
- The primary goal of the ILO is to promote social justice and internationally recognized human and labour rights, including the right to decent work for all.
- ILO represents the interests of governments, employers, and workers alike, acting as a tripartite organization that brings together these stakeholders to address labour-related issues globally.

## Answer 10 Option C is Correct

### Explanation:

- PM-SVANidhi
- It is a Central Sector Scheme i.e., fully funded by Ministry of Housing and Urban Affairs with the following objectives:
  - To facilitate working capital loan;
  - To incentivize regular repayment; and
  - To reward digital transactions
- Introduction of 3rd term loan of up to ₹50,000 in addition to 1st & 2nd loans of ₹10,000 and ₹20,000 respectively.
- The loans would be without collateral.
- Lending Agencies:
  - Microfinance Institutions, Non-Banking Financial Company, Self Help Groups have been allowed due to their ground level presence and proximity to the urban poor including the street vendors. **HENCE ALL THE STATEMENT ARE CORRECT**



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