

4 May 2024



**Daily Current Affairs**

**GEO IAS**

SOURCES



**Date: 4 May 2024**

### **Important News Articles**

1. India press freedom score fell over the last year: RSF - The Hindu
2. India-Nigeria trade officials meet as China's investments in Africa falter- The Indian express
3. March mining output growth slows to 1.2% in signal for IIP - The Hindu
4. Banned Oxytocin still used in milk supplied in Delhi: HC takes note- The Indian Express
5. Kerala on red alert for likely swell waves over the weekend- The Hindu
6. India, Indonesia agree to enhance collaboration in defence industry, maritime security- The Hindu
7. Productivity loss due to oral cancer in India in 2022 at \$5.6 bn: Study- Business Standard

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

8. Side effects of AstraZeneca vaccine: Medicine is clear now to the courts- Indian Express
9. Explained: The Eta Aquariid meteor shower and how it can be spotted Indian Express
10. This is the year to get the SDG goals back on track - The Hindu

### **Quick Look**

1. Shrinkflation
2. C295 Transport Aircraft:
3. 498A of the Indian Penal Code (IPC):
4. Mount Fuji
5. Thunderstorm:

## Important News Articles

### GS II

#### 1. India press freedom score fell over the last year: RSF - The Hindu

**Relevance:** Important International Institutions, agencies and fora - their Structure, Mandate.

##### Prelims Takeaway

- World Freedom Index

**News:**

- 'India's score fell over the last year' according to Reporters Without Borders (RSF), which puts together an annual index on the freedom enjoyed by journalists.

**Highlights:**

- India's score in the World Press Freedom Index fell from 36.62 to 31.28
- India's rank improved from 161 in 2023 to 159 in 2024, **but this was because other countries had slipped in their rankings.**
- **Norway and Denmark topped** the RSF table while Eritrea was at the bottom, with Syria just ahead of it.
- The **government** has in the past dismissed international rankings of freedoms in India as **misinformed and propaganda driven.**
- The press freedom questionnaire covers five categories — **political context, legal framework, economic context, sociocultural context and security.**
  - **Scores for India dropped (worsened) in all but the security indicator.**

#### 2. India-Nigeria trade officials meet as China's investments in Africa falter- The Indian express

**Relevance:** Effect of Policies and Politics of Developed and Developing Countries on India's interests, Indian Diaspora.

##### Prelims Takeaway

- Indo-Africa Ties
- Sub Saharan region

**News:**

- Amid a crisis in China that has put brakes on its investments in Africa, Indian officials held a Joint Trade Committee (JTC) meeting with their Nigerian counterparts.

**Key Highlights:**

- The ripple effects of China's slowing economy extended to sovereign lending to sub-Saharan Africa,
  - below \$1 billion last year, the lowest level in nearly two decades.
- China has made deep economic ties with countries in sub-Saharan Africa over the past 20 years, making it the region's largest single-country trading partner.
- The delegation from India consisted of officials from
  - The Reserve Bank of India (RBI), EXIM Bank of India, and the National Payments Corporation of India (NPCI).
- Both sides wanted to resolve market access issues, and cooperation in key sectors:
  - Crude oil and Natural Gas, Pharmaceuticals, Unified Payments Interface (UPI), Local Currency Settlement System among others.
- **Nigeria is the second-largest** trading partner of India in the Africa region.
  - Bilateral trade between India and Nigeria stood at \$11.8 billion in 2022-23.
- With a total investment of \$27 billion, approximately 135 Indian companies are actively engaged in Nigeria's vibrant market.
  - These investments traverse diverse sectors, encompassing infrastructure, manufacturing, consumer goods, and services.

## GS III

### 3. March mining output growth slows to 1.2% in signal for IIP - The Hindu

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

#### Prelims Takeaway

- IIP

**News:**

- India's mining output growth slid to a 19 month low

**Highlights:**

- This hints at a possible slowing in the month's overall industrial output,
- Industrial output growth hit a four-month high of 5.7% in February with mining (8%) and electricity growth (7.5%) lifting growth.

**IIP.**

- Manufacturing constitutes 77.6% of the IIP
  - The eight infrastructure sectors make up 40.27% of the IIP
- Mining constitutes 14.3% of the Index of Industrial Production (IIP).
- The Index of Industrial Production (IIP) is a measure of the rate of growth in the economy's various industry groups over a given time period.
- The Central Statistical Organization (CSO) computes and publishes the IIP index on a monthly basis.

### 4. Banned Oxytocin still used in milk supplied in Delhi: HC takes note- The Indian Express

**Relevance:** Science and Technology- Developments and their Applications and Effects in Everyday Life

#### Prelims Takeaway

- Oxytocin
- Dairy Sector

**News:**

- HC calls for action against 'rampant use of Oxytocin' in dairy colonies

**Key Highlights:**

- The drug was banned by the Central government, saying that it was being misused on milch cattle to increase yield.
- It not only affects the health of the cattle but also humans who consumed the milk.
- The Delhi High Court has called for action against its use in dairy colonies and observed its administration to "animal cruelty".

**Oxytocin**

- Also known as the '**love hormone**', Oxytocin is secreted by the **pituitary glands** of mammals during sex, childbirth, lactation or social bonding.
- chemically manufactured and sold by pharma companies for use during childbirth.
- It is administered either as an injection or a nasal solution.
- The bench said, use of Oxytocin is a offence under Section 12 of the Prevention of Cruelty to Animals Act, 1960

### 5. Kerala on red alert for likely swell waves over the weekend- The Hindu

**Relevance:** Disaster and Disaster Management.

#### Prelims Takeaway

- Swell Waves
- INCOIS

**News:**

- Coastal communities have been advised to remain vigilant with Kerala being put on red alert for high-energy swell waves along the coast.

**Key Highlights:**

- Indian National Centre for Ocean Information Services (INCOIS) forecast says the sea is likely to be "dominated" by **high-energy swell waves**
- The phenomenon, known locally as '**Kallakadal**' (literally 'rogue sea').
  - Low-lying areas along the coast such as beaches could experience intermittent surges of seawater during high periods, 0.5 to 1.7-metre high swell waves.

- The Kerala State Disaster Management Authority has issued directions for suspending recreational activities along the beaches.
  - The public has been advised against travelling to the coast. Directions have also been issued to shift people from the beaches.

**Swell Waves:**

- A swell is the formation of **long wavelength waves** on the surface of the seas. These are composed of a series of surface gravity waves.
- They occur not due to the local winds, but rather due to distant storms like hurricanes, or even long periods of fierce gale winds.

## 6. India, Indonesia agree to enhance collaboration in defence industry, maritime security- The Hindu

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

**Prelims Takeaway**

- Indo-Pacific
- ASEAN

**News:**

- India and Indonesia agreed to enhance collaboration in areas of defence industry, maritime security and multilateral cooperation
- During the India-Indonesia **Joint Defence Cooperation** Committee meeting held in New Delhi.

**Key Highlights:**

- India and Indonesia have a **Comprehensive Strategic Partnership** and have arrived at a shared vision of the Indo-Pacific.
- Indonesia is an important partner in **India's Act East Policy** and the Indo-Pacific region.
- The first-ever "India-Indonesia Defence Industry Exhibition-cum-Seminar" was organised in Jakarta
  - Which marked the 75th year of establishment of diplomatic ties.

**Indo-Indonesia:**

- India and Indonesia laid the foundation of the Afro-Asian and Non-Aligned Movements at the Bandung Conference in 1955.
- Indonesia is India's second largest trading partner in ASEAN countries and bilateral trade stands over **38 billion dollars**.
  - India is the largest buyer of **crude palm oil** from Indonesia and also imports coal, minerals, rubber, pulp and hydrocarbon in significant quantities.
- In 2005 both the countries agreed to become Strategic Partners
- India has active cultural centres in Jakarta and Bali.

## 7. Productivity loss due to oral cancer in India in 2022 at \$5.6 bn: Study- Business Standard

**Relevance:** science and Technology- developments and their applications and effects in everyday life.

**Prelims Takeaway**

- CANCER
- GDP

**News :**

- A study by the Tata Memorial Centre (TMC), a premier cancer treatment and research institute, has estimated that the productivity loss of the country due to oral cancer in year 2022 was approximately USD 5.6 billion.

**India Battles High Costs and Young Victims of Oral Cancer**

- This study highlights the serious impact of oral cancer in India.
- It's the most common cancer in men, causing a huge number of deaths and costing the country billions.
- **Younger lives lost:** Unlike Western countries, oral cancer strikes younger people in India, with a median age of death at 41.5. This means many productive years are cut short.
- **Financial burden:** Treatment costs a lot, with many needing financial aid. Lost productivity due to illness adds to the economic strain.
- **Early detection is key:** The study emphasizes the importance of early screening, especially for younger adults. This could save lives and reduce economic losses.
- The high prevalence of tobacco use, alcohol, and poor oral hygiene are major risk factors for oral cancer in India.

## Editorials, Gists and Explainers

### 8. Side effects of AstraZeneca vaccine: Medicine is clear now to the courts- Indian Express

**Relevance:** Science and Technology- developments and their applications and effects in everyday life.

**News :**

- Like in most pandemics, the after-shocks of Covid-19 are continuing.
- The most recent being Oxford-AstraZeneca's vaccine being linked to a rare adverse side effect — thrombosis with thrombocytopenia syndrome (TTS).

#### KEY HIGHLIGHTS

- Manufactured by the Serum Institute of India (SII) in India and sold under the brand name Covishield, this vaccine was the workhorse in India's Covid-19 vaccination programme.

#### Understanding the rare side-effect

What exactly is a TTS?

- Also, known as vaccine-induced prothrombotic immune thrombocytopenia (VIPIT) or vaccine-induced immune thrombotic thrombocytopenia (VITT)
- it is a rare syndrome reported in persons who received the adenoviral vector Covid-19 vaccines (there are several) and is generally understood to result from an immune response triggered by the adenovirus vector used in the vaccines.
- Typically presenting four to 42 days after vaccination, the symptoms are on account of thrombosis formation (blood clots) along with thrombocytopenia (low platelet count).
- The hallmark of Tier 1 is the uncommon site of thrombosis such as brain or gut or other rare sites of venous and arterial thromboses.

#### Is TTS a threat?

- The fatality rate related to TTS per million doses administered has been similarly heterogeneous — from a high of 0.6 to 1.3 in countries like Australia, Spain, France, Canada, and Italy to less than 0.1 in Asian countries and Brazil.
- South Africa was one of the earliest to announce the suspension of its use of the Astra Zeneca vaccine on February 7, 2021. By mid-March 2021, more than 20 European countries had decided to suspend its use, particularly among younger adults. Canada suspended it on March 29, and despite maintaining a stockpile of several million doses in the US, the company decided to withdraw its application to the Federal Drug Agency for its approval.
- The disease itself also caused clotting problems that could result in death. It also called for specific information of the risks being shared widely. The WHO's Global Advisory Committee on Vaccine Safety (GACVS) met on March 16 and 19, 2021.

#### WAY FORWARD

- The High Court in the UK will decide on a potential 255 million pound compensation that will be borne by the government, given the indemnity agreements.
- Nested within a pandemic, there are critical ethical dilemmas for the courts to resolve. The bottom-line is the WHO's criteria for vaccine confidence — need for trust in the effectiveness and safety of vaccines and the perceived motivations of policy-makers.

### 9. Explained: The Eta Aquariid meteor shower and how it can be spotted Indian Express

**Relevance:** Science and Technology- developments and their applications and effects in everyday life.

**Context:**

- The Eta Aquariid meteor shower, which has been active since April 15, will peak on May 5 and 6.

## KEY HIGHLIGHTS

- Comprising burning space debris moving at speeds of around 66 km per second (2.37 lakh kmph) into Earth's atmosphere
- these showers are seen in May every year, and are best visible to countries such as Indonesia and Australia in the Southern Hemisphere.

### What are comets?

- Meteor showers come from comets, which are frozen leftovers from the formation of our solar system, some 4.6 billion years ago.
- Comets are composed of dust, rock and ice, and orbit around the Sun in highly elliptical orbits which can, in some cases, take hundreds of thousands of years to complete.
- According to NASA, a total of 3,910 comets are currently known, although billions more are theorised to be orbiting the Sun beyond Neptune, in the Kuiper Belt and even more distant Oort cloud.
- However, as they come closer to the Sun, comets "heat up and spew gases and dust into a glowing head that can be larger than a planet", according to NASA's website.
- This material also forms a tail which stretches millions of miles.

### How exactly are meteor showers related to comets?

- Meteors are simply grains of dust or rock that burn up as they enter the Earth's atmosphere.
- This burning also creates a brief tail.
- Since most meteors are tiny (the size of a grain of sand) they completely burn up in Earth's atmosphere.
- However, once in a while, a large enough meteor passes through and hits the ground (at which time it is called a meteorite), often causing significant damage.
- The Eta Aquariid meteor shower is formed when Earth passes through the orbital plane of the famous Halley's Comet, which takes about 76 years to orbit the Sun once.
- Last seen in 1986, Halley's comet is due to enter the inner solar system again in 2061. Like Eta Aquariids, the Orionids meteor shower is also caused by the Halley's Comet,

### Why are Eta Aquariids unique?

- The Eta Aquariid meteor shower is known for its rapid speed.
- This makes for long, glowing tails which can last up to several minutes.

## 10. This is the year to get the SDG goals back on track - The Hindu

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

### News:

- According to available reports progress towards fulfilling SDGs are off track

#### Key Highlights:

- The recent United Nations summit on Sustainable Development Goals (SDG), that was held in New York assessed progress towards achieving the SDGs.
- The **Agenda-2030**, which was adopted by the UN General Assembly in 2015
  - **Identified 17 SDGs with 169 specific targets to be achieved by 2030.**
- The programme is **internationally non-binding**, but all countries have committed to work towards these goals.

#### Slow progress

- From **2015 to 2019**, there were some improvements but they were grossly insufficient to achieve the goals.
- The outbreak of the **COVID-19 pandemic and other global crises** have virtually halted progress.
- Apart from slow progress, there is little or **no attention towards the goals related to the environment and biodiversity**
- We are far from the overarching target of balancing human well-being and a healthy environment.
- The present trend, if continue, **will lead to accelerated environmental degradation**

#### UN SDG Report : Key Suggestion

- Given this emerging scenario, the **UN SDG Report, 2023 identified five key areas for urgent action:**
  - **Commitment** of governments to deliver on the promises of SDGs
  - **Concrete, integrated and targeted** government policies and actions to eradicate poverty
  - **Reducing inequality** and to end the war on nature with a focus on advancing the rights of women and girls and empowering the most vulnerable
  - **Strengthening of national and subnational capacity**, accountability, and public institutions to deliver accelerated progress
  - **Recommitment of the international community** to deliver and mobilise resources to assist developing nations.

#### Need for action:

- There is little evidence that **goal setting at the global level leads directly to political impacts in national and local politics.**
- **UN report, 'Future is Now', provided guidelines for action.**
  - It emphasised that the true transformative potential of the 2030 Agenda can be realised through a systemic approach that helps identify, manage trade-offs while maximising co-benefits.
  - By **co-benefit** the stress is on the activities that will address multiple SDGs
- The report suggests adopting locally best suited entry points following regional and national priorities and applying four levers:
  - **Governance, Economy & Finance**
  - **Individual & Collective action,**
  - **Science & Technology**
- Actors from these levers must develop partnership, **establish collaboration** and **rapidly implement** integrated pathways to sustainable development.

## Quick Look

### 1. Shrinkflation

- Companies reduce the size or quantity of a product while keeping the price the same.
- It's a subtle way for businesses to cope with rising production costs or maximize profits without overtly raising prices.
- It occurs mainly in the food and beverage industries

### 2. C295 Transport Aircraft

- It is a new-generation tactical airlifter in the light and medium segment. It was designed and built by Airbus, a European multinational aerospace corporation.
- It is a reliable and highly versatile tactical transport that is tailored for missions that range
  - from carrying troops and cargo, maritime patrol, airborne warning, surveillance and reconnaissance to signals intelligence armed close air support, medical evacuation, Air-to-Air refuelling, VIP transport, and airborne firefighting.

### 3. 498A of the Indian Penal Code (IPC)

- It is a crucial legal provision that aims to protect married women from cruelty inflicted upon them by their husbands or their relatives.
- This section was introduced in 1983 as an amendment to the IPC to address the growing concern of domestic violence and harassment faced by married women in India.
- Under Section 498-A IPC, a husband or his relatives can be sentenced to a jail term of three years for subjecting the wife to cruelty.
- The section applies to married women only.
- The section defines cruelty as any wilful conduct that is likely to drive a woman to commit suicide or to cause grave injury to her life, limb, or health, whether mental or physical.

### 4. Mount Fuji

- Located on Honshu Island in Japan,
- It is an iconic and active stratovolcano
- It is situated within the Ring of Fire
- It is one of the most geologically active regions on Earth characterized by high seismic and volcanic activity.

### 5. Thunderstorm

- It is a rain shower during which you hear thunder. Since thunder comes from lightning, all thunderstorms have lightning.
- Thunderstorms arise when layers of warm, moist air rise in a large, swift updraft to cooler regions of the atmosphere.
- There, the moisture contained in the updraft condenses to form towering cumulonimbus clouds and, eventually, precipitation.
- Columns of cooled air then sink earthward, striking the ground with strong downdrafts and horizontal winds.
- At the same time, electrical charges accumulate on cloud particles (water droplets and ice).



## Prelims Track Question

**Q1. Consider the following statements regarding World Press Freedom Index**

1. The Index's rankings are based on a score ranging from 0 to 10
2. It is published every year by Reporters Without Borders
3. The report ranks 180 countries based on their level of press freedom

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

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

**Q2. Consider the following statements about The India-Africa Summit**

**Statement I:** The Summit was initiated by India in 1961 under PM Nehru

**Statement II:** India-Africa Summit is a forum to re-initiate and reboot relation between India and African countries

**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

**Q3. Consider the following Statement regarding Index of Industrial Production (IIP)**

1. It is compiled and published quarterly by the CSO
2. Currently the base year of IIP in India is 2015-16
3. Core industries hold around 40% share of IIP

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

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

**Q4. Consider the following Pairs: Hormone Function**

1. Parathyroid – Managing sleep-wake cycle
2. Dopamine – Controlling moods, memory
3. Melatonin – Calcium in the bloodstream

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

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

**Q5. Consider the following Statements regarding Indian National Centre for Ocean Information Services (INCOIS):**

1. INCOIS is an autonomous organisation under the Ministry of Science & Technology
2. It develops and improves capability to forecast, weather, climate and hazard
3. Provides daily advisories to farmers to help them in their harvest.

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

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

**Q6. Consider the following Statements regarding Defence Indigenisation of India**

**Statement 1:** Operation Trident is the flagship programme to Indian government to indigenously establish defence production

**Statement 2:** . It encourages foreign direct investment (FDI) in defence manufacturing, technology transfer, and collaboration

**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

**Q7. India faces a significant public health burden due to oral cancer. In light of this, choose the most appropriate statement.**

- A. Oral cancer primarily affects elderly citizens globally.
- B. Stringent regulations on tobacco products are unnecessary for controlling oral cancer.
- C. Early detection programs for oral cancer are a low priority due to minimal economic impact.
- D. HPV vaccination can be a potential preventive measure for certain types of oral cancer.

**Q8. In the context of vaccines manufactured to prevent COVID-19 pandemic, consider the following statements:**

- 1. The Serum Institute of India produced COVID-19 vaccine named Covishield using mRNA platform.
- 2. Sputnik. V vaccine is manufactured using vector-based platform.
- 3. COVAXIN is an inactivated pathogen-based vaccine.

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

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

**Q9. Consider the following**

- 1. Meteors are simply grains of dust or rock that burn up as they enter the Earth's atmosphere.
- 2. Most meteors are tiny (the size of a grain of sand) they completely burn up in Earth's atmosphere.
- 3. Meteorites are large enough that a meteor passes through and hits the ground often causing significant damage.

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

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

**Q10. Consider the following statement regarding Sustainable development goals**

- 1. Agenda 2030 for achieving SDGs is founded upon 5 pillars
- 2. There in total 27 SDGs with 169 targets
- 3. They are legally binding on the participating countries

**How many of the above statement 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 Index's rankings are based on a score ranging from 0 to 100 with 100 being the best possible score (the highest possible level of press freedom) and 0 the worst.

**Statement 1 is incorrect.**

- This index is published by Reporters Without Borders (RSF) every year. RSF defends the right of every human being to have access to free and reliable information.

**Statement 2 is correct.**

- The report ranks 180 countries based on their level of press freedom. **Statement 3 is correct.**

### Answer 2 Option D is Correct

#### Explanation:

- India-Africa Summit is a forum to re-initiate and reboot relations between India and African countries. **Hence, statement 2 is correct**

- **It started from 2008** with New Delhi as its first venue. Since then, the summit has been held every three years, alternately in India and Africa. **Hence, statement 1 is not correct.**

- The second summit was held in Addis Ababa in 2011. The third summit, scheduled to be held in 2014, was postponed because of the Ebola outbreak, and took place in October, 2015 in New Delhi.

### Answer 3 Option A is correct

#### Explanation:

- The all India IIP is a composite indicator that measures the short-term changes in the volume of production of a basket of industrial products during a given period with respect to that in a chosen base period. It is compiled and published monthly by the Central Statistics Office (CSO). **Statement 1 is incorrect.**

- The base year of IIP in India is currently 2011-12. **Statement 2 is incorrect**

- The eight core sector industries represent around 40% of the weight of items that are included in the IIP. **Statement 3 is correct.**

### Answer 4 Option A is Correct

#### Explanation:

- The **parathyroid hormone** produced by the thyroid glands helps maintain the right balance of **calcium in the bloodstream** and in tissues that depend on calcium for proper functioning. **Pair 1 is INcorrect.**

- **Melatonin** is a natural hormone that's mainly produced by your pineal gland in your brain. It plays a role in managing your **sleep-wake cycle** and circadian rhythm. **Pair 3 is INcorrect.**

- **Dopamine** acts on areas of the brain to give you feelings of pleasure, satisfaction and motivation. Dopamine also has a role to play in **controlling memory, mood,** sleep, learning, concentration, movement and other body functions. **Pair 2 is correct.**

### Answer 5 Option A is Correct

#### Explanation:

- Indian National Centre for Ocean Information Services (INCOIS), is an autonomous organization under the Ministry of Earth Sciences (MoES) **Statement 1 is INcorrect.**

- Its aim is to develop and improve capability to forecast, weather, climate and hazard **Statement 2 is correct.**

- Provides daily advisories to **fisher folk** to help them easily locate areas of abundant fish **Statement 3 is INcorrect.**

### Answer 6 Option D is Correct

#### Explanation:

- Make in India is a flagship initiative launched by the Government of India in 2014 with the aim of transforming India into a global manufacturing hub. Operation Trident was an offensive operation launched by the Indian Navy on Pakistan's port city of Karachi during the Indo-Pakistani War of 1971. **Statement 1 is INcorrect.**

- In the defense sector, Make in India aims to promote indigenous production of defense equipment and reduce dependency on imports.

- It encourages foreign direct investment (FDI) in defense manufacturing, technology transfer, and collaboration with domestic companies to build capabilities for defense production within the country. **Statement 2 is correct**

**Answer 7 Option D is Correct**

**Explanation:**

- Options (a), (b), and (c) are incorrect
- Oral cancer is highly prevalent among younger individuals, high economic cost, and Stringent regulations on tobacco products are potential preventive measures.
- HPV vaccination can be a potential preventive measure for certain types of oral cancer.
- There is the link between Human Papillomavirus (HPV) and some oral cancers, suggesting vaccination as a preventive strategy. **Hence option D is correct**

**Answer 8 Option B is correct**

**Explanation**

- **Statement 1 is incorrect:** The Serum Institute of India produced COVID-19 vaccine named Covishield but not using mRNA platform. It has been prepared using the viral vector platform. In the vaccine, a chimpanzee adenovirus – ChAdOx1 – has been modified to enable it to carry the COVID-19 spike protein into the cells of humans. This cold virus is basically incapable of infecting the receiver, but can very well teach the immune system to prepare a mechanism against such viruses.
- The same technology was used to prepare vaccines for viruses like Ebola.
- **Statement 2 is correct:** Sputnik V, the world's first registered vaccine, is based on the human adenoviral vector-based platform. The gene from adenovirus, which causes the infection, is removed while a gene with the code of a protein from another virus spike is inserted.

- **Statement 3 is correct:** Covaxin is an inactivated viral vaccine. It is developed with Whole-Virion Inactivated Vero Cell-derived technology. That is, it contains inactivated viruses that cannot infect a person, but still can teach the immune system to prepare a defence mechanism against the active virus.

**Answer 9 Option C is correct**

**Explanation**

- Meteors are simply grains of dust or rock that burn up as they enter the Earth's atmosphere.
- This burning also creates a brief tail.
- Since most meteors are tiny (the size of a grain of sand) they completely burn up in Earth's atmosphere.
- However, once in a while, a large enough meteor passes through and hits the ground (at which time it is called a meteorite), often causing significant damage. **Hence all statements are correct**

**Answer 10 Option A is correct.**

**Explanation:**

- Transforming our world: the 2030 agenda for sustainable development' is founded upon 5 pillars.
  - people (living with dignity);
  - planet (protecting our planet);
  - prosperity (a life which offers development possibilities);
  - peace (free from fear and violence);
  - partnership (a renewed global solidarity where everyone contributes so that no-one is left behind). **Statement 1 is correct.**
- The 17 SDGs are defined more precisely in 169 targets. **Statement 2 is incorrect.**
- The Sustainable Development Goals (SDGs) are not legally binding. **Statement 3 is incorrect.**



## ABOUT US

GEO IAS is the best institute for civil services in India for providing top quality teaching and materials, offering you most optimum path for your success in Civil Services exam. Our aim is to provide quality training with an affordable fee structure. Our uniquely designed course make us the best institute for UPSC to crack the exam in one go. We have a dedicated team of experienced and young teachers and counsellors who make sure that every student who joins the institute, must get customized way of preparation which matches with student's learning style. The only institute of UPSC in India which has 3 AI enabled Mobile apps. We believe in Smart way of teaching and learning. The classes are available in offline as well as in online mode. We take the help of animation so that you may visualize the lectures. Unlimited tests for prelims and mains with solution in both form (Hard copy and soft copy). We have the set of 15 lac mcqs on each topic. We provide daily news analysis, Highlighted news paper and links of important Sansad TV shows. The institute has best success rate with more than 230 students have cleared the exam. HIGHEST RATED INSTITUTE as per GOOGLE, SULEKHA and JUST DIAL and the magazine on civil services

 +91-9477560001 /002/005

 BRANCH: Delhi Kolkata, Raipur, Patna |  
HEAD OFFICE: 641, Ramlal Kapoor Marg,  
Mukherjee Nagar, Delhi, 110009

 [info@geoias.com](mailto:info@geoias.com)

 [www.geoias.com](http://www.geoias.com)