

**HEALTH**

**1. Revamped Pharmaceuticals Technology Upgradation Assistance Scheme and UCPMP 2024**

- The Department of Pharmaceuticals (DoP), Ministry of Chemicals and Fertilizers, announces the Revamped Pharmaceuticals Technology Upgradation Assistance Scheme (RPTUAS).
- It aims to upgrade the technological capabilities of the pharmaceutical industry in alignment with global standards.
- Additionally, the DoP released the Uniform Code for Pharmaceutical Marketing Practices (UCPMP) 2024. The code aims to ensure responsible marketing practices and curb misleading promotional activities.

**What are the Key Highlights of the RPTUAS?**

- The Department of Pharmaceuticals through RPTUAS aims to contribute to the growth of the pharmaceutical industry and ensure compliance with global manufacturing standards.
- Broadened Eligibility Criteria:
  - Expanded eligibility beyond Micro, Small, and Medium Enterprises (MSMEs) to include any pharmaceutical manufacturing unit with a turnover of less than Rs 500 crores.
  - Preference remains for MSMEs, supporting smaller players in achieving high-quality manufacturing standards.
- Flexible Financing Options:
  - Introduces subsidies on a reimbursement basis, offering more flexibility than the traditional credit-linked approach.
- Comprehensive Support for Compliance:
  - Supports a wide range of technological upgrades in line with revised Schedule M and World Health Organization (WHO)- Good Manufacturing Practices (GMP) standards, including HVAC systems, testing laboratories, clean room facilities, etc.
- Dynamic Incentive Structure:
  - Offers incentives based on turnover, ranging from 20%, 15%, and 10% of investment under eligible activities for turnovers less than Rs. 50.00 crore, Rs. 50.00 to less than Rs. 250.00 crore, and Rs. 250.00 to less than Rs. 500.00 crore, respectively.
- State Government Scheme Integration:
  - Allows integration with state government schemes to provide additional top-up assistance.
- Enhanced Verification Mechanism:
  - Implements a robust verification mechanism through a Project Management Agency to ensure transparency and accountability.

**Pharmaceuticals Technology Upgradation Assistance (PTUAS) Scheme**

- PTUAS helps drug companies upgrade their facilities to produce medicines that meet global standards. It was launched in July 2022.
- Allows up to a maximum of 5% per annum (6% for units owned and managed by Scheduled Castes and Scheduled Tribes) of interest subvention for the loan component eligible under the scheme, capped at Rs. 10 crore.
- This subsidy is applicable for a maximum period of 3 years on the reduced balance for loans sanctioned by scheduled commercial banks /financial institutions, both in the public and private sectors.

**Revised Schedule M and WHO-GMP Standards**

- The Union Health Ministry's notification in January 2024 introduced revisions to Schedule M of the Drugs and Cosmetics Rules, 1945, focusing on robust quality control measures for pharmaceutical and biopharmaceutical products.
- Schedule M prescribes Good Manufacturing Practices (GMP) for pharmaceutical products.
- GMP was first incorporated in Schedule M of the Drugs and Cosmetics Rules, 1945 in the year 1988 and the last amendment was done in June 2005.
- With the amendment, the words 'Good Manufacturing Practices' (GMP) have been replaced with 'Good Manufacturing Practices and Requirements of Premises, Plant and Equipment for Pharmaceutical Products'.
- The revised Schedule M emphasizes adherence to GMP and incorporates requirements for premises, plant, and equipment. This ensures alignment with the World Health Organization (WHO) GMP Standards.
- GMP is the mandatory standard that builds and brings quality into a product by way of control on materials, methods, machines, processes, personnel, facility/environment, etc.
- The updated Schedule M introduces a pharmaceutical quality system (PQS), quality risk management (QRM), product quality review (PQR), qualification and validation of equipment, and a computerised storage system for all drug products.

**Recent Cases of Quality Issues in the Indian Medicines**

- In December 2023 the data from the Central Drugs Standard Control Organisation (CDSCO), shows that at least 6% of cough syrup samples from 54 Indian manufacturers failed a mandatory quality test for export.'
- Gambia, Uzbekistan, Cameroon, and the World Health Organization (WHO) expressed concerns following the deaths of children who had taken these medications.

- In April 2023, the US Centers for Disease Control and Prevention (CDC) and the Food and Drug Administration (USFDA) raised concerns over a drug resistant bacteria strain allegedly linked to eye drops imported from India.

#### **Key Provisions of UCPMP 2024**

- Medical representatives are prohibited from using inducements to gain access to healthcare professionals.
- Companies are barred from offering cash, monetary grants, or pecuniary benefits to healthcare professionals or their family members.
- Pharmaceutical companies are forbidden from giving gifts or any pecuniary advantages to individuals qualified to prescribe or supply drugs.
- Claims about a drug's usefulness must be supported by up-to-date evidence, and terms like "safe" and "new" must be used appropriately.
- Pharmaceutical companies can only engage with healthcare professionals (HCPs) for Continuing Medical Education (CME) through well-defined, transparent, and verifiable guidelines.
- The UCPMP will be circulated for strict compliance by all pharmaceutical companies and associations.
- All associations must constitute an Ethics Committee for Pharmaceutical Marketing Practices.

#### **Pharmaceutical Industry in India**

- The Economic Survey 2022-23 mentions that India is ranked 3rd worldwide in the production of pharma products by volume and 14th by value.
- The Pharma Industry is expected to reach USD 130 Bn by 2030. India is a major exporter of Pharmaceuticals, with over 200+ countries served by Indian pharma exports.
- The nation is the largest provider of generic medicines globally, occupying a 20% share in global supply by volume, and is the leading vaccine manufacturer globally.
- India supplies over 50% of Africa's requirement for generics, 40% of generic demand in the US and 25% of all medicine in the UK.
- India also accounts for approximately 60% of global vaccine demand. 70% of WHO's vaccines are sourced from India.

### **SCHEMES AND POLICIES**

#### **'Vocal for Local' Initiative**

NITI Aayog recently launched the 'Vocal for Local' initiative under its Aspirational Blocks Programme.

##### **About**

- This initiative, spearheaded by NITI Aayog as part of its Aspirational Blocks Programme, aims to foster self-reliance and propel communities towards sustainable growth and prosperity.
- Under this initiative, local products from 500 aspirational blocks have been identified and consolidated under the Aakanksha brand.
- Aakanksha serves as an overarching brand with the potential to extend into multiple sub-brands, creating opportunities in the international market.
- To promote these products, a dedicated window has been established on the Government e-Marketplace (GeM) portal under the Aakanksha brand.
- Additionally, partners will offer technical and operational support, facilitating e-commerce onboarding, establishing linkages, enhancing financial/digital literacy, and providing certification and skill enhancement, among other services.

#### **Government e-Marketplace (GeM):**

- GeM, launched in 2016 by the Ministry of Commerce and Industry, is an online platform for public procurement.
- It serves as a centralized portal for the procurement of common-use goods and services by various government departments, organizations, and PSUs.
- Purchases through GeM are mandated by the Ministry of Finance under the General Financial Rules, 2017. The platform is owned by GeM SPV, a 100% government-owned non-profit company.

#### **Aspirational Blocks Programme:**

- Aligned with the Aspirational District Programme launched in 2018, this initiative covers 112 districts nationwide.
- The aim is to uplift blocks lagging in development parameters, fostering holistic development in areas requiring additional support.
- Initially spanning 500 districts across 31 states and union territories, over half of these blocks are concentrated in Uttar Pradesh, Bihar, Madhya Pradesh, Jharkhand, Odisha, and West Bengal.

### **ENVIRONMENT**

#### **Global Methane Tracker 2024**

According to the International Energy Agency's (IEA) Global Methane Tracker 2024, Methane emissions from fuel use in 2023 were close to being the highest ever.

##### **About**

The Global Methane Tracker is an annual report issued by the International Energy Agency (IEA), providing insights into methane emissions from the energy sector based on the latest available data, scientific studies, and satellite information.

#### Highlights of the Global Methane Tracker 2024

- Methane emissions from fuel use in 2023 nearly reached record levels at 120 million tonnes, showing a slight increase compared to the previous year.
- Bioenergy contributed an additional 10 million tons of emissions.
- Approximately 80 million tons of methane emissions originated from just 10 countries, with the United States leading in emissions from oil and gas operations, followed closely by Russia, and China leading in emissions from coal operations.
- While emissions are declining in certain regions, they remain too high globally to achieve climate goals, necessitating a 75 percent reduction in methane emissions from fossil fuels by 2030 to limit warming to 1.5°C under the Paris Agreement.
- Achieving this goal would require an estimated \$170 billion in spending, representing less than 5 percent of the income generated by the fossil fuel industry in 2023.

#### About the International Energy Agency (IEA):

- Established in 1974 in Paris, France, the IEA is an autonomous intergovernmental organization focusing on energy policies related to economic development, energy security, and environmental protection.
- It operates under the mandate of tracking global energy trends, promoting sound energy policies, and fostering multinational energy technology cooperation.
- The IEA's mission is to ensure reliable, affordable, and clean energy for its member countries and beyond, with focus areas including energy security, economic development, environmental awareness, and global engagement.
- Major reports issued by the IEA include the World Energy Outlook, World Energy Investment Report, World Energy Statistics, World Energy Balances, Energy Technology Perspectives, and India Energy Outlook Report.

#### PRELIM FACTS

##### 1. Karnataka Ban Harmful Food Colouring Agents

Recently, the Karnataka Government has announced a ban on the use of harmful colouring agents in popular food items like cotton candy and Gobi Manchurian.

##### About:

- The ban targets Rodamine B in cotton candy and imposes restrictions on Tartrazine usage in Gobi Manchurian.
- Rhodamine B is a chemical compound commonly employed in synthetic dyes for colouring silk, jute, leather, cotton, and wool, as well as in the cosmetics and plastics industries.
- Tartrazine is a bright yellow azo dye that is more stable and a cheaper alternative to natural food dyes.
- According to the Food Safety and Standards Authority of India (FSSAI), no colouring matter should be added to food unless permitted in the Food Safety and Standards (Food Products Standards and Food Additives) Regulation, 2011.

##### 2. Gorsam Kora Festival

The Gorsam Kora festival symbolised the enduring friendship between India and Bhutan commenced on 7th March and concluded on 10th March this year.

##### About

- It is held in Arunachal Pradesh's Zeminthang Valley along the Nyanmjang Chu River.
- This annual festival is held at Gorsam Chorten, a 93 feet tall Stupa, built during 13th century AD by a local monk- Lama Pradhar.
- This is also the place where the 14th Dalai Lama had his first rest after fleeing from Tibet in 1959.
- It features cultural performances and Buddhist rituals at the Gorsam Chorten, which is older than the Tawang Monastery.
- Many devotees including large number of Bhutanese nationals visit during Gorsam Kora festival to celebrate the virtuous occasion during the last day of the first month of the Lunar calendar.
- The festival featured a diverse array of events, including enthralling performances by local cultural troupes and by the Indian army bands, martial performances like Mallakhamb and Zanjh Pathaka.

##### 3. KIRTI Programme

Union Minister for Youth Affairs and Sports inaugurated the unique Khelo India Rising Talent Identification (KIRTI) programme.

##### About

- It is aimed at school children between nine and 18 years age group.
- The nation-wide scheme will have two main objectives:
  - To hunt talent from every nook and corner of the country and
  - To use sports as a tool to curb addiction towards drugs and other gadgetry distractions.

- KIRTI aims to conduct 20 lakh assessments across the country throughout the year to identify talent through notified Talent Assessment Centres.
- KIRTI made a solid launch across 50 centres in India. Fifty thousand applicants are being assessed in the first phase across 10 sports, including athletics, boxing, wrestling, hockey, football and wrestling.
- KIRTI's athlete-centric programme is conspicuous by its transparent selection methodology based on Information Technology.
- Data analytics based on Artificial Intelligence is being used to predict the sporting acumen in an aspiring athlete.

#### **What is Khelo India Scheme?**

- It is the flagship Central Sector Scheme of the Ministry of Youth Affairs & Sports.
- It aims at infusing sports culture and achieving sporting excellence in the country thus allowing the populace to harness the power of sports through its cross-cutting influence.
- Under the "Sports Competitions and Talent Development" vertical of the Khelo India Scheme, the "Talent Identification and Development" component is dedicated to working towards the identification and development of athletes at the grassroots and elite levels to develop the sports ecosystem in the country.

#### **4. Hyodol Robot**

- South Korean company Hyodol has come up with a way to use Artificial Intelligence (AI) to beat loneliness among elders with dementia.
- The South Korean government has reportedly deployed approximately 7,000 Hyodol dolls to alleviate the loneliness experienced by senior citizens and to assist in reminding them to take medications, addressing a growing social concern in the country.

#### **About the Hyodol Robot:**

- The Hyodol Robot is an AI care robot designed to offer personalized care for seniors. It achieves this by gathering data through interactions and conversations with the seniors.
- Capable of engaging in full conversations, it is equipped with a companion app and a web monitoring platform for caregivers to oversee remotely. Additionally, it features safety measures that can trigger alerts in the absence of movement for a specified duration.
- The robot includes touch interaction, regular check-ins, a health coach, voice messaging, 24-hour reminders, access to music, quizzes, exercise recommendations, and more.
- Caregivers with access to the app can exchange voice messages, make group announcements, and monitor motion detection.
- Furthermore, the robot maintains constant vigilance over the health status of its users through daily health Q&A sessions, collecting verbal and nonverbal data over a 24-hour period using AI.

#### **Technological Features:**

- Enabled by large language model integration, the AI robot can hold meaningful conversations.
- The robots offer convenient and easily managed intelligent services, facilitating seamless development and debugging.
- Additionally, the AI robot can be synchronized with smart home devices, providing a user-friendly interface for all interactions.

#### **5. Lachit Borphukan**

Recently, the Prime Minister of India unveiled a 125-foot bronze statue of Ahom general Lachit Borphukan at his burial site in eastern Assam's Jorhat district.

#### **About**

- He was a renowned military commander of the Ahom kingdom, which existed from 1228 to 1826. His notable leadership was demonstrated in the historic 1671 Battle of Saraighat.
- In this battle, he successfully repelled the Mughal forces, commanded by Raja Ramsingh-I, thwarting their prolonged efforts to reclaim Assam. As recognition of his valor, he was appointed as one of the five Borphukans of the Ahom kingdom by King Charadhwaj Singha, entrusted with administrative, judicial, and military duties.
- The Borphukan was known for his preference for guerrilla tactics, which gave his smaller yet agile forces an advantage in warfare.
- Following his demise at the age of 49 due to illness, he was laid to rest at the 'maidam'—the burial grounds designated for Ahom royals and nobles—at Hollongapar, a year after the decisive battle.

#### **Key Points about the Ahom Kingdom:**

- The Ahom dynasty ruled over extensive territories in what is now Assam for nearly six centuries, spanning from the early 13th to the early 19th century.
- This prosperous kingdom, characterized by its cultural diversity, encompassed both the upper and lower reaches of the Brahmaputra valley, thriving primarily on rice cultivation in its fertile lands.
- The Ahoms engaged in a prolonged series of conflicts with the Mughal Empire from 1615 to 1682, spanning the reigns from Jahangir to Aurangzeb.

### **6. Euscorpions Krachan**

Researchers recently discovered a previously unknown species of scorpion, scientifically classified as Euscorpions Krachan.

#### **About Euscorpions Krachan:**

- It belongs to the subgenus Euscorpions and has been named Euscorpions Krachan after the national park in Thailand, where it was found.
- Scorpions in this genus have limited distribution ranges with a high degree of endemism. They can be found mainly in mountain areas, particularly in places with numerous rock crevices.
- They are very small in comparison to most other species of the subgenus, reaching just over 1 inch in length.
- They are brownish in colour; however, females are darker than males.
- They also have eight eyes and eight legs.

### **7. PB Shabd Platform**

Union Minister of Information and Broadcasting launched PB-SHABD, a news sharing service from Prasar Bharati.

#### **About**

Prasar Bharati's PB-SHABD platform has been crafted to disseminate daily news feeds in various formats such as video, audio, text, and photos to subscribers across the media landscape. Utilizing Prasar Bharati's extensive network of reporters, correspondents, and stringers, this service delivers the latest news from diverse regions of the country.

#### **Key Features of PB-SHABD:**

- It serves as a centralized hub for news content, catering to a wide range of organizations.
- The SHABD service offers news stories in all major Indian languages across fifty different categories.
- Subscribers can access shared feeds to craft customized storytelling across multiple platforms.
- Initially offered free of cost for the first year, the service aims to support smaller newspapers, TV channels, and digital portals.

#### **About Prasar Bharati:**

- Prasar Bharati serves as the nation's Public Service Broadcaster.
- Established in 1997 under the Prasar Bharati Act, it operates as a statutory autonomous body.
- The primary objective of Prasar Bharati is to provide public broadcasting services aimed at informing and entertaining the public.
- It encompasses the Doordarshan Television Network and All India Radio, previously media units of the Ministry of Information and Broadcasting.
- Headquartered in New Delhi, Prasar Bharati plays a vital role in disseminating information and promoting cultural exchange across the country.

### **ANSWER WRITING**

#### **Q. What do you understand by rule of law? Explain how this idea is reflected in the Constitution of India.**

As per A.V. Dicey, the concept of the rule of law entails the absolute predominance of regular law over arbitrary power, ensuring fairness and justice within a constitutional framework. This principle is underpinned by three key tenets:

1. **Supremacy of Law:** Individuals can only be punished for clear violations of the law, safeguarded against arbitrary arrest, and granted the opportunity to defend themselves.
2. **Equality before Law:** All individuals, regardless of status or position, are treated equally under the law.
3. **Predominance of Legal Spirit:** The constitution embodies the rights of individuals as enforced by the courts.

These principles are enshrined in the Indian Constitution through various provisions:

- Article 13(1) mandates legislative conformity with the Constitution, with Article 14 ensuring equality and equal protection before the law.
- The Preamble emphasizes justice, liberty, and equality, advocating for a fair and just system.
- The Constitution guarantees the fundamental right to life and personal liberty.
- The rule of law is a fundamental feature of the Constitution, integral to its fabric.
- Judicial independence ensures the enforcement of the rule of law by keeping all branches of the state within legal boundaries.
- Constitutional Supremacy empowers the legislative and executive branches, with Article 32 granting the Supreme Court powers for judicial review to uphold the rule of law.

The rule of law, rooted in justice and equality, is upheld by the judiciary in India, leading to the development of new remedies for human rights violations and reforms aimed at preventing the misuse of laws and the criminalization of politics.

### **MCQs**

- |  |   |
|--|---|
| 1. Consider the following statements about Pandavula Gutta | 3. Paleolithic cave paintings have been found at Pandavula Gutta. |
| 1. It is the one and only Geo-heritage site in Telangana.  | How many of the statements given above are correct?               |
| 2. Pandavula Gutta is a hillock older than Himalayas.      | (a) Only one (b) Only two   |
|  | (c) All three (d) None  |

2. Consider the following statements about Shipra River
  1. It originates in the Satpura Range from a hill called Dhupgarh.
  2. It flows across the Malwa Plateau to join the Chambal River.
  3. The holy city of Ujjain is located on the right bank of the Shipra River.
 How many of the statements given above are correct?  
 (a) Only one (b) **Only two**  
 (c) All three (d) None
3. Consider the following statements ETHANOL 100 fuel
  1. It has high-octane rating, typically between 100-105
  2. It includes 93-93.5% ethanol blended with 5% petrol and 1.5% co-solvent, which is a binder.
 Which of the statements given above is/are incorrect?  
 (a) 1 only (b) 2 only  
 (c) Both 1 and 2 (d) **Neither 1 nor 2**
4. Consider the following statements
  1. Lepidolite and Kaolinite is the lithium-rich mica mineral that is usually pink, red or purple in colour.
  2. Lepidolite is the most abundant lithium-bearing mineral and is a secondary source of Lithium.
 Which of the statements given above is/are correct?  
 (a) 1 only (b) **2 only**  
 (c) Both 1 and 2 (d) Neither 1 nor 2
5. Atapaka Bird Sanctuary, recently seen in news is located on which of the following major lakes of India?  
 (a) **Kolleru Lake**  
 (b) Ansupa Lake  
 (c) Renuka lake  
 (d) Chilika Lake
6. Consider the following statements about Fast Breeder Reactors
  1. India's first indigenous Prototype Fast Breeder Reactor (PFBR) is located in Gorakhpur Nuclear Power Plant, Haryana.
  2. FBRs are a type of nuclear reactor which can create more fissile material (fuel) than they consume.
  3. This is achieved by converting fertile material into fissile material through a process called nuclear transmutation.
 How many of the above statements are correct?  
 (a) Only one (b) **Only two**  
 (c) All three (d) None
7. With reference to Neo Vaishnavism consider the following statements
  1. The Neo Vaishnavism is a movement, spearheaded by Saint Srimanta Sankaradeva.
  2. Chinha Jatra is a dance-drama created by Srimanta Sankaradeva.
  3. Sattras are monastic institutions established by Srimanta Sankardev serve as centres of religious, social and cultural reform.
 How many of the above statements are correct?
  - (a) Only one (b) Only two
  - (c) All three (d) None
8. Consider the following
  1. Hydrochlorofluorocarbons (HCFCs) are both ozone depleting substances (ODS) and powerful greenhouse gases.
  2. Kigali Amendment to the Montreal Protocol aims to reduce consumption of hydrofluorocarbons (HFCs) by 80% by 2047.
 Which of the statements given above is/are not correct?  
 (a) 1 only (b) 2 only  
 (c) Both 1 and 2 (d) **Neither 1 nor 2**
9. Darien Gap, which has become a major route for global human migration recently is located in?  
 (a) **Isthmus of Panama**  
 (b) strait of Kerch  
 (c) Arabian Sea  
 (d) Gulf of Aden
10. Consider the following statements
  1. Process for de-notification of protected areas is governed by the provisions of Biodiversity Act 2002.
  2. The proposal for denotification of any Sanctuary/National Park requires recommendation of the National Board for Wildlife and thereafter, approval from Supreme Court.
 Which of the statements given above is/are not correct?  
 (a) 1 only (b) **2 only**  
 (c) Both 1 and 2 (d) Neither 1 nor 2