

26 Mar 2023: UPSC Exam Comprehensive News Analysis



TABLE OF CONTENTS
A. GS 1 Related
B. GS 2 Related GOVERNANCE 1. MSME growth in India
C. GS 3 Related SECURITY 1. Supreme Court on banned outfits
D. GS 4 Related
E. Editorials ECONOMY 1. Why did India reject J&J's patent on TB drug? 2. Will mega textile parks help boost the sector?
F. Prelims Facts 1. Fatty Liver Disease
G. Tidbits 1. Anji Khad bridge
2. Origin of Nuclear Fuel
H. UPSC Prelims Practice Questions
I. UPSC Mains Practice Questions

A. GS 1 Related

Nothing here for today!!!

B. GS 2 Related

Category: GOVERNANCE

1. Online RTI Portal

Syllabus: Important Aspects of Governance, Transparency & Accountability

Mains: Role of RTI in attaining the elements of good governance like transparency.

Context: Supreme Court directions on online RTI portals.

Introduction:

- The Supreme Court bench led by Chief Justice of India D.Y. Chandrachud has directed the States and Union Territories to set up and operationalise online [Right to Information](#) (RTI) portals within three months to ensure transparency in governance.
- It also gave three months' time to Registrar Generals of State High Courts to establish and run online RTI portals, in their respective High Courts and district courts.
- A petition filed by the Pravasi Legal Cell, argued that Section 6(1) of the Right to Information Act, 2005 stipulated that an information seeker had a statutory right to move an application through electronic means.
 - However, several High Courts and most district courts entertain only physical RTI applications.
- The Supreme Court launched an online portal in November 2022 to help citizens file and access applications under the Right to Information (RTI) Act in matters related to the court.
 - This web portal can be used only by Indian citizens to file applications.

Significance of online RTI Portals:

- Online RTI portals are easily accessible to anyone with an internet connection, which means that people from all parts of the country can make use of them without having to travel to government offices.
- They are available 24/7, which facilitates filing of requests at any time, without having to wait for office hours.
- User-friendly portals could save time and effort.

- Online RTI portals promote transparency by making information available to citizens in a timely and efficient manner. This can help to reduce corruption and increase accountability in government.

***Nut Graf:** The Supreme Court has directed States, Union Territories and High Courts to set up online RTI portals within three months to ensure transparency in governance. The move promotes accessibility, convenience, transparency, and accountability in government.*

C. GS 3 Related

Category: ECONOMY

1. MSME growth in India

***Syllabus:** Growth, Development & Employment*

***Mains:** Significance of MSME sector for India*

Context: This article discusses the issues around the growth of MSME in India.

Key Details:

- The Finance Ministry has sought to dismiss the “narrative” that India’s micro, small and medium enterprises (MSMEs) are stagnating, citing data that it asserts shows smaller firms evolving into larger units in recent years.
- According to the ministry, the number of micro units graduating to small units had increased to 65,140 in 2022-23, from 28,881 in 2021-22.
- MSME sector has seen upward inter-category mobility among manufacturing, service and trading units.
- The number of ‘small’ units elevating themselves to the ‘medium’ category has also increased significantly, by 75%, from 3,699 in FY22 to 6,474 in FY23.
 - These upwardly mobile units are from Maharashtra, Gujarat, Delhi, Tamil Nadu, Uttar Pradesh and Karnataka.
- However, industry representatives are sceptical of the Ministry’s findings.
 - Association of Indian Entrepreneurs, which was associated with a recent survey of MSMEs that revealed 72% of MSMEs had stagnated over the last five years.

MSME Sector:

- The MSME sector plays a vital role in the economy, with a share of 26.8% in the overall Gross-Value Added (GVA) and 38.5% of manufacturing GVA, as of 2020-21.

- The sector's contribution is qualitatively significant in cultivating an entrepreneurial culture.
- A significant contribution comes from the manufacturing sector, which has the higher employment-generating potential of this sector.

Udyam Portal:

- The Udyam Portal is an online platform launched by the Ministry of Micro, Small and Medium Enterprises (MSME) in July 2020 for the registration and classification of MSMEs in India. This portal has replaced the earlier system of Udyog Aadhaar registration.
- MSMEs can register on the Udyam Portal by providing their Aadhaar number, PAN number, and other details such as business name, type of enterprise, and bank account information. The registration process is free of cost and is entirely online.
- The Udyam Portal also allows for the classification of MSMEs based on their turnover and investment in plant and machinery or equipment.
- The benefits of registration on the Udyam Portal include easier access to credit, subsidies, and various other government schemes.
- It also provides MSMEs with a unique identification number, which can be used for various business transactions and availing benefits from the government.
- Overall, the Udyam Portal aims to promote the growth of MSMEs in India by simplifying the registration process and providing various benefits and opportunities for their development.

Nut Graf: *The Union Finance Ministry has refuted claims that India's MSMEs are stagnating, citing data showing that smaller firms are evolving into larger units. However, industry representatives are sceptical over the figures presented by the ministry citing poor registration of MSMEs in Udyam Portal.*

D. GS 4 Related

Nothing here for today!!!

E. Editorials

Category: ECONOMY

1. Why did India reject J&J's patent on TB drug?

Syllabus: Intellectual Property Rights.

Mains: Patent application for TB drugs.

Prelims: Indian Patents Act; Tuberculosis.

Context: A patent application by Johnson & Johnson was rejected by the Indian Patent Office.

Details:

- An application by Johnson & Johnson (J&J) to extend its patent on the drug Bedaquiline beyond July 2023 was rejected by the Indian Patent office.
 - Bedaquiline is used to treat drug-resistant [TB](#).
- This would allow drug manufacturers to produce generic versions of Bedaquiline and make it more affordable.
- It would help in achieving India's goal of eliminating TB by 2025.

Also read: [Patents Act in India](#) [Patent Law- Designs and Trademarks](#), [Advantages](#)

Drug-resistant TB and its treatment:

- India accounts for almost one-fourth of the world's burden of multi-drug-resistant (MDR) TB and extensively-drug-resistant (XDR) TB (as per 2017 findings).
 - MDR TB resists treatment by at least two frontline drugs namely isoniazid and rifampicin.
 - XDR TB resists treatment by isoniazid, rifampicin, fluoroquinolones, and any second-line injectable drug. There were approximately 2650 cases of XDR TB in 2017.
- It was found that in 2021, there were about 124000 cases of MDR TB in India.
- Despite the reduction of TB incidence in India, MDR and XDR TB endanger the efforts to locally eradicate the disease.
- Moreover, the [COVID-19 pandemic](#) has severely affected the treatment of the disease for two years due to supply chain disruption, inaccessibility of drugs, and shortage of healthcare workers.
- TB can be treated by strictly adhering to the drug doses. Deviation from the drug schedule might result in making the bacteria drug-resistant.
- A drug-resistant TB is harder to treat. The [World Health Organization](#), in 2018, replaced two injectable drugs for MDR TB with an oral regimen comprising Bedaquiline.

BEDAQUILINE

- It should be noted that second-line treatment options are mostly injected and cause severe side effects such as hearing loss. Bedaquiline is available in tablet form and is not harmful.
- However, it was found that it might have an impact on the heart and liver and is not recommended as a treatment of last resort.
- As per the guidelines prescribed by the Ministry of Health and Family Welfare, Bedaquiline should be used as part of the Programmatic Management of MDR TB under the National TB Elimination Programme.

Details about the rejection of patent treatment:

- The patent application of J&J was for a fumarate salt of a compound to produce Bedaquiline tablets.
- The application was opposed on the ground as the method used to produce a “solid pharmaceutical composition” of Bedaquiline is “obvious” and does not require an “inventive step”.
 - The Indian Patent Act 1970 Section 2(1)(ja) describes an ‘inventive step’ to be an invention that is “not obvious to a person skilled in the art”.
- It was also argued that the current application was significantly based on the previous patent (WO 2004/011436). It is similar to the compound discussed in 2002.
- The opposing groups also highlighted the act of ‘evergreening’, which is disallowed in India.
 - Evergreening is a method in which patent-owner continuously extends their rights and/or apply multiple patents for the same product.
- The Patent Office rejected the application on these grounds. It also referred to Sections 3d and 3e of the Act.

Consequences of the rejection of patent application:

- J&J’s patent on Bedaquiline resulted in the cost of the drug being \$400 per person.
- The rejection of the application will reduce the cost of the drug by 80%.
- After July 2023, other manufacturers of generic drugs can produce generic versions of Bedaquiline.

Nut Graf: *India has a high burden of TB cases. The rejection of the patent application by a pharmaceutical giant shows the country’s effort to promote generic drugs for the disease and eliminate TB by 2025.*

2. Will mega textile parks help boost the sector?

Syllabus: Textile Industry.

Mains: PM MITRA Scheme and the textile sector of India.

Prelims: Textile Industry.

Details:

- The Government of India announced the establishment of seven mega textile parks under the ₹4445 crore PM Mega Integrated Textile Regions and Apparel (PM MITRA) scheme.
- The scheme aims to streamline the textile value chain into one ecosystem. It can generate investments worth ₹70,000 crores.
- Moreover, it can generate 20 lakh jobs.

Differences between PM MITRA and previous schemes:

- The Apparel Park Scheme and the Scheme for Integrated Textile Parks were launched in 2002 and 2005 respectively to develop infrastructure for textile and apparel sector.
- PM MITRA scheme is different from other schemes as it emphasizes on:
 - Large scale production
 - Provision of plug-and-play manufacturing centres
- Moreover, the textile parks will be established in states having inherent strengths in the textile sector.

Impact of PM MITRA on MSME:

- The [Micro, Small, and Medium Enterprises \(MSME\) sector](#) covers nearly 80% of the textiles and apparel industry in India.
- Notably, the Indian textile and clothing units are mostly cotton-based.
- In the past few years there has been a change in the global geopolitical situation and overseas buyers exploring options in China and other countries. This has resulted in notable shifts in the supply chain.
- The manufacturers with vertically integrated facilities are at a higher advantage than the small and standalone players.
- Integrated and larger facilities will drive the industry's investment plan and boost exports. Thus, the PM MITRA scheme is a step in the right direction as it realizes the existing challenges and tries to reduce them.

Statistical details:

- The exports of Indian textile and clothing have stagnated at nearly the \$40-billion mark over the past four years.

- The aim is to achieve the target of \$100 billion in export and \$250 billion domestically by 2030.
- Moreover, 65% of the total textile and apparel exports are made up of cotton-based products.
- The exports from India in the textile sector mainly include yarn, bedsheets, towels, T-shirts, and denim fabric.
- India's share in the global market is 5%.

Way Ahead:

- It is important for the industry to be price competitive right from the raw material stage and ensure the sustainability and traceability of international demands.
- The state government should support the PM MITRA scheme. States should provide sustainable and cost-effective solutions for issues like pollution control and value-adding segments.
- India should adopt best practices from countries like Turkey that have highly efficient integrated textile parks.
- The central and state governments should encourage MSME units to increase investment.

Nut Graf: *In order to become the prime destination for textile production and exports, it is important for all the stakeholders like MSMEs, State and Central government to collaborate. PM MITRA scheme is a step in the right direction that aims to integrate the textile ecosystem in the country.*

F. Prelims Facts

1. Fatty Liver Disease

Syllabus: *GS02-Health Related Issues*

Prelims: *Lifestyle Disorders; Non Communicable Diseases*

Context: This article discusses the impact of inadequate sleep on fatty liver disease.

Key Details:

- A high-quality study showed that inadequate sleep duration was strongly associated with an elevated risk of developing non-alcoholic fatty liver disease, and adequate sleep helped prevent it.
- Several experiments on lab mice and rats have shown the impact of inadequate sleep which increased Liver enzymes, blood, and liver fat.

- Sleep deprivation stresses liver cells and the activity of certain genes that escalate insulin resistance and fat content within liver cells also increased with sleep deprivation.
- The sympathetic nerves that supplied the liver, best known for their role in responding to stress and danger, were hyperactive in sleep deprived people.
- With every one-hour decrease in sleep time from the recommended seven-eight hours, the risk of fat deposition in the liver increased by 24% compared with those who slept adequately.

Importance of sleep:

- Sleep is a vital function of human life and accounts for up to one-third of the lifespan. Contrary to normal belief, during sleep, the brain is not 'resting' but is engaged in various activities necessary to improve well-being, increase life, and especially impact the liver.
- A study of nearly 55,500 people from Europe showed that those who slept 7-8.5 hours daily had higher life expectancy than those who slept less than seven hours.
- In those between ages 50 and 75 without sleep disturbances, the expectation of living longer without chronic disease development was significantly higher.

Non-alcoholic fatty liver disease:

- Nonalcoholic fatty liver disease (NAFLD) is an umbrella term for a range of liver conditions affecting people who drink little to no alcohol.
- The main characteristic of NAFLD is too much fat stored in liver cells.
- Early-stage NAFLD does not usually cause any harm, however, individuals with NAFLD can develop nonalcoholic steatohepatitis (NASH), an aggressive form of fatty liver disease, which is marked by liver inflammation and may progress to advanced scarring (cirrhosis) and liver failure.
 - This damage is similar to the damage caused by heavy alcohol use.
- Having high levels of fat in the liver is also associated with an increased risk of serious health problems, such as diabetes, high blood pressure and kidney disease.
- Increase in NAFLD in diabetic patients will heighten the chances of developing heart problems.
- If detected and managed at an early stage, it's possible to stop NAFLD getting worse and reduce the amount of fat in the liver.

G. Tidbits

1. Anji Khad bridge

- The Anji Khad bridge is an under-construction cable-stayed bridge over the Anji Khad river connecting Katra and Reasi Section of Jammu–Baramulla line.

- It is India's first cable-stayed railway bridge.
- It is supported by a single pylon — a large vertical tower-like structure — soaring 1,086 feet from the river bed, the height of a 77-storey building.
- The bridge will pave the way for a single broad-gauge track for trains connecting Jammu to Baramulla, via Srinagar, along a 326-km railway line.
- The project was commissioned by the Northern Railways and is being executed by Konkan Railway Corporation Ltd. (KRCL) and Hindustan Construction Company.
- The idea was first conceived in 2002 during Atal Bihari Vajpayee's tenure as Prime Minister, and was declared a “national project”.
- The nearest border area is Suchetgarh, about 92 km from the bridge construction site.



Image Source: The Hindu

2. Origin of Nuclear Fuel

- Scientists in China have developed a technique to reliably identify whether some nuclear fuel originated in one of two common kinds of nuclear reactors using experimental data and machine-learning (ML).
- The reactor type, the fuel's exposure time inside the reactor, and the extent of the fuel's enrichment can uniquely identify spent nuclear fuel.
- Nuclear fuel is a highly regulated material because of its destructive potential. Countries maintain detailed inventories to safeguard it.
- Identifying the origin of nuclear fuel is a difficult task in nuclear forensics.
- Nuclear forensics uses analytical methods to identify the origins of nuclear materials and whether they were used for military applications.

- Spent fuel from boiling water reactors (BWRs) is hard to differentiate from that from pressurised water reactors (PWRs) because both “use water as moderator and have similar thermal neutron spectra, so they are quite similar in neutron reaction mechanism.
 - Therefore, scientists from China have trained data from the database to develop three ML models to distinguish fuel from BWRs from that from PWRs.
- In BWRs, the fuel rods are submerged in water. When the fuel fissions, the water boils and the steam drives a turbine. In PWRs, the fuel rods aren't exposed to the water; only the heat is exchanged.

H. UPSC Prelims Practice Questions

Q1. With respect to ‘Earth Hour’, which of the following statements is/are correct? (Level-Difficult)

1. It is an initiative of UNESCO.
2. The event is held biennially, encouraging individuals, communities, and businesses to turn off non-essential electric lights, for one hour

Options:

- A. 1 only
- B. 2 only
- C. Both
- D. None

Answer: D

Explanation:

- The World Wildlife Fund for Nature (WWF) started ‘Earth Hour’ in 2007.
- It is held every year on the last Saturday of March.
- The initiative began in 2007 in Sydney, Australia and later became a global event.
- Earth Hour’s goal is to raise awareness for sustainable energy use and create a more environmentally sustainable lifestyle.
- This day encourages citizens, communities, businesses and organisations to switch the lights off from 8:30 pm local time for an hour to highlight the plight of the planet.

Q2. Which of the following are the Applications of Artificial Intelligence?(Level-Easy)

1. AI can help reduce the possibility of credit card fraud
2. AI helps individuals and businesses from Email spam.
3. AI applications are used in healthcare to build sophisticated machines that can detect diseases and identify cancer cells
4. Artificial Intelligence is used to identify defects and nutrient deficiencies in the soil.
5. AI assists in detecting data overflow in a buffer.

Options:

- A. 1 and 2 only
- B. 1, 2, 4 and 5 only
- C. 3, 4 and 5 only
- D. 1, 2, 3,4 and 5

Answer: D

Explanation:

- **Statement 01 is correct**, AI can help reduce the possibility of credit card fraud. AI is able to analyse huge numbers of transactions in order to uncover fraud patterns, and eventually use them to detect fraud in real-time and even prevent it.
- **Statement 02 is correct**, Machine learning informs AI when it scans incoming emails. It looks for emails that signal red flags and filter out spam emails.
- **Statement 03 is correct**, Artificial intelligence can assist providers in a variety of patient care and intelligent health systems. Artificial intelligence techniques ranging from machine learning to deep learning are prevalent in healthcare for disease diagnosis, drug discovery, and patient risk identification.
- **Statement 04 is correct**, The AI deep learning application aids the growth of flora pattern analysis in agriculture. The AI-driven software tools support our understanding of soil imperfections, plant pests, and diseases. Farmers use AI to control weeds using computer vision, robotics, and Machine learning.
- **Statement 05 is correct**, AI can be used to detect vulnerabilities in software, detecting data overflow in a buffer.

Q3. Which of the following Provisions were added by the 42nd Constitutional Amendment act? (Level-Difficult)

1. Made the President bound by the advice of the cabinet.
2. Curtailed the power of judicial review and writ jurisdiction of the Supreme Court and high courts.
3. Included 14 land reforms Acts of various states in the Ninth Schedule.
4. Empowered the Parliament to restrict the Fundamental Rights of persons employed in intelligence organisations and telecommunication systems

Options:

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

Answer: A

Explanation:

- **Statement 01 is correct**, [42nd Constitutional Amendment act](#) made the President bound by the advice of the cabinet.
- **Statement 02 is correct**, This amendment attempted to curtail the power of judicial review of the Supreme Court and High court by excluding from their purview any matter of elections.
- **Statement 03 is incorrect**, 47th Constitutional Amendment Act, 1984 included 14 land reforms Acts of various states in the Ninth Schedule.
- **Statement 04 is incorrect**, 50th Constitutional Amendment Act, 1984 empowered the Parliament to restrict the Fundamental Rights of persons employed in intelligence organisations and telecommunication systems set up for the armed forces or intelligence organisations.

Q4. Consider the following statements with respect to M. Visvesvaraya: (Level-Medium)

1. Visvesvaraya was appointed Diwan of Mysore by Maharaja Krishnaraja Wadiyar IV.
2. He founded the Century Club and served as its first president in 1917-18.
3. He was the Chief Engineer of the Almatti Dam

Options:

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

Answer: A

Explanation:

- **Statement 01 is correct**, In 1912, Visvesvaraya was appointed Diwan of Mysore by Maharaja Krishnaraja Wadiyar IV. He served as Diwan until 1918.
- **Statement 02 is correct**, In 1917, he founded the Century Club and served as its first president in 1917-18.
- **Statement 03 is incorrect**, The Almatti Dam is a dam project on the Krishna River in North Karnataka, India which began in 1963.

**Q5. Which of the following countries share borders with Moldova? (PYQ-CSE-2008)
(Level-Difficult)**

1. Ukraine
2. Romania
3. Belarus

Select the correct answer using the code given below:

- A. 1 and 2 only
- B. 2 and 3 only

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

Answer: A

Explanation: Moldova shares its international border with its two neighbouring countries; Romania and Ukraine.



I. UPSC Mains Practice Questions

1. [India's patent regime often comes under criticism by the developed nations. Identify the reasons for such criticism.](#) (250 words; 15 marks) (GS-3; Science and Technology)
2. [The Government of India's recent push to the textile sector is justified, considering the potential of this sector. In the light of the same, elaborate the advantages that the textile sector holds for India's economy.](#) (250 words; 15 marks) (GS-3; Economy)