18 Jun 2021: UPSC Exam Comprehensive News Analysis

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A. GS 1 Related

Nothing here for today!!!

B. GS 2 Related

Category: POLITY AND GOVERNANCE

1. Birth, death registrations up in 2019

Context:

According to the "Vital Statistics of India Based on The Civil Registration System" report the level of registration of births and deaths in the country improved in 2019.

Key Highlights:

- While 14 States/Union Territories achieved 100% level of birth registrations, 19 States/Union Territories achieved 100% registration in cases of death.
- The report states that the level of **birth registration increased from 87.8% in 2018 to 92.7% in 2019. Death registrations** went up from **84.6% to 92% during the period.**

Sex ratio at birth:

- The share of **institutional births in the total registered births was 81.2%.**
- The number of registered births increased to 2.48 crore in 2019 from 2.33 crore in 2018.
- The **share of male and female was 52.1% and 47.9%.**
- The **highest sex ratio at birth (SRB)** was reported by Arunachal Pradesh (1,024), followed by Nagaland (1,001) Mizoram (975) and Andaman & Nicobar Islands (965).
- The **lowest SRB was** reported by Gujarat (901), Assam (903) and Madhya Pradesh (905), followed by Jammu & Kashmir (909).

Limitations:

- The level of registration was arrived at **using the mid-year projected population of the respective States/Union Territories of 2011-2019 based on the 2011 census** (Report of the Technical Group on Population Projections, July 2020, National Commission on Population, Ministry of Health & Family Welfare).
  - Therefore, it is not comparable with rates presented in previous reports.
- The level of registration was arrived at using Sample Registration System Rates for 2018 as the **survey for 2019, could not be completed due to the COVID-19 pandemic**.
- Also, some States/Union Territories submitted incomplete or partial data, which was not included.

2. Rules regulating cable TV network amended

Context:

The Information and Broadcasting Ministry has **amended the rules regulating cable television networks.**

Details:

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- The amendment provides for **a statutory mechanism for complaints raised by citizens regarding any content broadcast.**

- At present, there are over 900 TV channels that are **required to comply with the Programme and Advertising Code** laid down by the Ministry of Information and Broadcasting under the **Cable Television Network Rules.**

- The Cable Television Networks (Amendment) Rules, 2021, provides for a **three-level grievance redressal mechanism:**

  - self-regulation by broadcasters

  - self-regulation by the self-regulating bodies of the broadcasters

  - oversight by an Inter-Departmental Committee at the level of the Centre.

- A viewer could file a complaint directly to the broadcaster, who **would have to respond within 15 days.**

- If the complainant was not satisfied with the response, the **complaint could be escalated to the self-regulating bodies set up by TV channels**, which should **deal with the case in 60 days.**

  - Such appeals would be dealt with by the **Inter-Departmental Committee set up under the Oversight Mechanism.**

  - The Committee would be headed by the Additional Secretary in the Ministry of Information and Broadcasting.

  - Its members would be from the Ministry of Women and Child Development, Home Ministry, Ministry of Electronics and Information Technology, Ministry of External Affairs, Ministry of Defence, and representatives of other Ministries and organisations, including experts, as decided by the Centre.

- This third tier was **not only kept aside to hear the appeals, it could take up complaints that come directly to the Centre.**

C. GS 3 Related

Category: ENVIRONMENT AND ECOLOGY

1. Assam seeks realignment of tracks through wetland

Context:

The Assam government has proposed the **realignment of a broad-gauge railway line through the Deepor Beel.**

- Clearance from the National Green Tribunal is expected once the eco-sensitive zone is declared by the concerned authorities.

Issue:

- **Several elephants have been run over** on the railway track between the elevated Rani Reserve Forest and the sanctuary.

- The elephants use four corridors crossing the track to often bathe and feed on the aquatic plants in the wetland.

- Besides, it **creates noise pollution and disturbs the migratory birds.**

Deepor Beel:

- Deepor Beel is an '**Important Bird Area'** site as designated by Birdlife International.

- It is a bird sanctuary that shelters over 200 species of birds, including about 70 species of migratory birds.

- It is also designated a wetland of international importance under the **Ramsar Convention of Wetlands.**

  - **Ramsar Convention is an international agreement promoting the conservation and wise use of wetlands.**

  - It is the only global treaty to focus on a single ecosystem.

- The wetland is also **used by elephants as a major corridor.**

- It is considered one of the largest and important **riverine wetlands in the Brahmaputra Valley of lower Assam**. It is a **permanent freshwater lake.**

- It is located about 10 km southwest of Guwahati in **Assam**.

D. GS 4 Related

Nothing here for today!!!

E. Editorials

Category: HEALTH

1. A place for disruptive technology in India's health sector

Context:

- In the light of the **health crisis brought out by the COVID-19 pandemic**, the article discusses the **relevance of disruptive technology and its applications in the medical sector.**

Blockchain technology:

- The term 'Blockchain' denotes a shared immutable record of a chain of transactions, each comprising one block, with the blocks being held together by cryptographic keys. These keys or signatures are stored in shared ledgers, joined by a mesh of nodes, or processes that connect them. Each node has a copy of the whole chain, being constantly synchronized and kept up to date.

- The advantages of blockchain technology include its **tamper-resistant nature, the decentralized nature of the digital ledgers, and the impossibility of changing a published transaction** subsequently within the user community that shares the ledger. This technology is also called **digital ledger technology (DLT).**

Medical blockchain:

- The health blockchain would contain a complete **indexed history of all medical data**, including formal medical records and health data from mobile applications and wearable sensors that can be stored in a secure network and authenticated.

Application in healthcare:

- Blockchains in healthcare can be envisaged in the following areas:

Securing patient data:

- Keeping important medical data safe and secure is the most popular blockchain healthcare application at the moment, given that data breach of patient records has been a major challenge.
- Blockchain technology can help conceal the identity of any individual with complex and secure codes that **can protect the sensitivity of medical data.**

Streamline medical care:

- The time-consuming process of obtaining access to a patient's medical records exhausts staff resources and delays patient care. Blockchain-based medical records offer a cure for these ills.
- **The decentralized nature of the technology creates one ecosystem of patient data that can be quickly and efficiently referenced** by doctors, hospitals, pharmacists and anyone else involved in treatment. In this way, blockchain can lead to faster diagnoses and personalized care plans.
- Thus blockchain medical records can help streamline care.

Medical supply chain management and drug traceability and safety:

- Blockchain has immense applications in **pharmaceutical supply chain management**, and it can virtually guarantee full transparency in the shipping process right from the manufacturing centre up until it reaches the consumer.

Complementing genomics:

- Blockchain is a perfect complement for the growing genomics field as it **can safely house billions of genetic data points**. Thus medical blockchain offers potential for point-of-care genomics management and the innumerable benefits that it offers to medical treatment.

Big data analytics:

- Big data analytics examines large amounts of data to **uncover hidden patterns, correlations and other insights.** Analysis of big data allows analysts, researchers and business users to make **better and faster decisions** using data that was previously unusable.

Big data in the medical sector:

- In healthcare, big data uses specific statistics from a population or an individual to research new advancements, reduce costs, and even cure or prevent the onset of diseases. In recent years, **healthcare data collection has moved into the digital realm, making analysis faster and more accurate.**

Application in healthcare:

- Applications of big data analytics can help improve the patient-based service, through **early disease detection**, generate new insights into disease mechanisms, monitor the quality of the medical and healthcare institutions as well as provide **optimized hospital healthcare treatment regimes.**

Artificial intelligence:

- Artificial intelligence (AI) is the **simulation of human intelligence processes by machines**, especially computer systems. Specific applications of AI include expert systems, natural language processing (NLP), speech recognition and machine vision.

AI in healthcare:

- Artificial intelligence in healthcare refers to the use of complex algorithms designed to perform certain tasks in an automated fashion. When researchers, doctors and scientists inject data into computers, the newly built algorithms can **review, interpret and even suggest solutions to complex medical problems.**

Application in healthcare:

- AI offers a number of advantages over traditional analytics and clinical decision-making techniques. Learning algorithms can become more precise and accurate as they interact with training data, allowing humans to gain unprecedented **insights into diagnostics, care processes, treatment variability, and patient outcomes.**

- AI can help deploy **more precise, efficient, and impactful interventions** at exactly the right moment in a patient's care.

Developing the next generation of radiology tools:

- As per some experts, artificial intelligence will enable the next generation of radiology tools that are accurate and detailed enough to **replace the need for tissue samples in some cases.**

Expanding access to care in underserved regions:

- Shortages of trained healthcare providers, including ultrasound technicians and radiologists can significantly limit access to life-saving care in developing nations around the world.

- Artificial intelligence could help mitigate the impacts of this severe deficit of qualified clinical staff by **taking over some of the diagnostic duties typically allocated to humans**.

- For example, AI imaging tools can screen chest x-rays for signs of tuberculosis, often achieving a level of accuracy comparable to humans. This capability could be deployed through an app available to providers in low-resource areas, reducing the need for a trained diagnostic radiologist on site.

Creating more precise analytics:

- Artificial intelligence can allow for **more detailed and precise analysis of tests and scans** that may escape the human eye.

Monitoring health:

- There has been increased access to devices with sensors that can collect valuable data about their health. Example- Smartphones with step trackers; wearables that can track heartbeat. This has helped generate large quantities of health-related data.

- Collecting and analyzing this data – and supplementing it with patient-provided information through apps and other home monitoring devices – can **offer a unique perspective into individual and population health.** Artificial intelligence will play a significant role in extracting actionable insights from this large and varied treasure trove of data.

- **AI can provide earlier warnings for conditions like seizures or sepsis.**

Revolutionize clinical decision making:

- Artificial intelligence can help power predictive analytics and clinical decision support tools that can help provide clues to problems long before they might otherwise be identified using traditional approaches.

  - **Immunotherapy** is one of the most promising avenues for treating cancer. By using the body's own immune system to attack malignancies, patients may be able to beat stubborn tumours. However, only a small number of patients respond to current immunotherapy options, and oncologists still do not have a precise and reliable method for identifying which patients will benefit from this option. Machine learning algorithms and their ability to synthesize highly complex datasets may be able to illuminate new options for targeting therapies to an individual's unique genetic makeup.

Internet of Things:

- The Internet of things describes the **network of physical objects** that are embedded with sensors, software, and other technologies for the purpose of **connecting and exchanging data with other devices and systems over the Internet.**

- **The Internet of Medical Things, or IoMT** (which is defined as a connected infrastructure of medical devices, software applications, and health systems and services) is shaping healthcare applications.

- There are hospitals, in China, that use 5G-powered temperature measurement devices at the entrance to flag patients who have fever/fever-like symptoms. Other robots measure heart rates and blood oxygen levels through smart bracelets and rings that patients wear.

Autonomous systems:

- An autonomous robot is a robot that performs behaviours or tasks with a high degree of autonomy. Autonomous robotics is usually considered to be a subfield of artificial intelligence, robotics, and information engineering.

Application in healthcare:

- There have been numerous reports of field hospitals **using robots to care for COVID-19 affected patients and even sanitize wards.** Autonomous systems could potentially help reduce the chances of hospital staff contracting infectious diseases from patients.

  - The Sawai Man Singh government hospital in Jaipur has held trials with a humanoid robot to deliver medicines and food to COVID-19 patients.

- **Medical autonomous systems can help improve health delivery** to a great extent. These systems can also help provide medical care delivery in dispersed and complex environments wherein there is a shortage of skilled manpower.

  - Autonomous systems in the medical sector could include autonomous critical care system, autonomous intubation, autonomous cricothyrotomy and other autonomous interventional procedures.

Cloud computing:

- Cloud computing is the delivery of computing services—including servers, storage, databases, networking, software, analytics, and intelligence—over the Internet to offer faster innovation, flexible resources, and economies of scale.

Application in healthcare:

- **Cloud computing could facilitate collaboration and data exchanges** between doctors, departments, and even institutions and medical providers to enable the best treatment.

Quantum computing:

- Quantum computing is the exploitation of collective properties of quantum states, such as superposition and entanglement, to perform computation.
- **Quantum-enhanced machine learning algorithms** are particularly relevant to the medical sector.

Read more on Quantum Computing in the link.

Application in healthcare:

- In the healthcare industry, quantum computing could help **accelerate diagnoses, and personalize medicine.**
- In genomic medicine, quantum computers may lead to **quick sequencing of DNA**, opening up the possibility of personalized medicine.
- It can help **speed up drug design and development**.
- In health care data collection, quantum mechanics and the related computer power may assist on several levels, including with **data storage, data transmission, and data security**.

Challenges in the adoption of disruptive technologies:

- The large scale adoption of these technologies should consider the **ethical appropriateness of digital technologies** and acknowledge the **digital divide in society.**
- Other challenges include the non-standardisation of health data, organisational silos, **data security and data privacy concerns**, and also the **high upfront costs** involved in the adoption of these technologies.

Recommendations:

- The adoption of the above technologies should be complemented by a **robust strategy integrating human, financial, organisational and technological resources.**
- The adoption of disruptive technologies should be complemented by **drawing upon local knowledge**. Community nurses, doctors, and health workers in developing countries do act as frontline sentinels and can provide valuable information at scale and pace. Thus the local/traditional knowledge and experiences need to be used with modern technology.

Conclusion:

- The disruptive technologies discussed above can play an important role in improving the health sector in general and improve the welfare of societies.
- The application of the disruptive technologies discussed above in the medical sector can **help realize the ideal of universal health coverage (UHC).**

Category: ECONOMY

1. Recovery takes more than reforms

Background:

- Growth estimates of the National Statistical Office show that after a steep contraction in the first quarter of 2020, growth accelerated steadily afterwards bringing hopes of an economic recovery.

- However, the **second wave of the COVID-19 pandemic** has adversely impacted this economic recovery process. So **as against the earlier predictions of a V-shaped economic recovery, India is more likely to witness a W-shaped economic recovery**.

- In this light, the article analyzes the government's policies and their possible impact on the economic recovery process.

Government policy:

Emphasis on long term economic reforms:

- The government has introduced a number of reforms in the economic sphere which it hopes will help the economy recover.
  - This includes the liberalization of the agricultural marketing sector, policies like the Production Linked Incentive scheme under the Atmanirbhar Bharat Abhiyaan, privatization of public sector units, lowering of corporate taxes, etc.
  - The reforms have **helped remove restrictions on private sector activity and helped incentivize private participation in the economy.**

Continued emphasis on fiscal consolidation:

- After the announcement of the limited economic stimulus package during the first wave, the **government reverted to fiscal consolidation** or the paring down of the fiscal deficit. Accordingly, it raised its budgeted expenditure by less than 1% in the last Budget.

Concerns:

Doubts over the effectiveness of the reforms in the short term:

- The article argues that the economic reforms though well-intended, may alone not be sufficient to induce the economic recovery process in India. The current economic situation and expectation of the state of the economy in the near future have **failed to enthuse private sector investment.**

Low public expenditure would impact demand generation:

- The article expresses concerns that the macroeconomic pre-occupation with fiscal consolidation may not be the best policy in the current situation. There has been an **increase in the unemployment rate and this could negatively impact demand in the economy.**

- The decision to limit public expenditure even as the economic recovery process is most likely to be hit by the second wave, will only **negatively impact the economic recovery process.**

Recommendations:

- The government should **adopt higher public expenditure as a way out of the current economic slump even if it leads to a higher than budgeted deficit or inflation.**
  - **India's public debt is low** by comparison with the OECD countries.

- Inflation from economic expansion could be controlled through the increased availability of food resources.

Category: POLITY AND GOVERNANCE

1. A judicial pushback to a draconian legal regime

- In light of the Delhi High Court granting bail to those accused in the 2020 Delhi riots case under the Unlawful Activities (Prevention) Act ("UAPA") provisions, the article analyzes the **shortcomings in the UAPA and its misuse**. The article argues for a more **balanced approach between civil rights and the imperatives of anti-terror laws** in this regard and examines the responsibility of the judiciary in checking the misuse of the UAPA.
- This issue has been dealt with previously in the following article:

UPSC Comprehensive News Analysis 16th June 2021

F. Prelims Facts

1. NBSA reprimands three TV channels

What's in News?

The **News Broadcasting Standards Authority (NBSA)** acting on complaints filed by the Bengaluru-based Campaign Against Hate Speech (CAHS), has reprimanded three television channels over reports that **targeted Tablighi Jamaat members during the pandemic in 2020.**

- The NBSA has imposed a fine of ₹1 lakh on the broadcaster payable to the News Broadcasters Association (NBA) and directed it to run an apology on-air for violating the Code of Ethics and Broadcasting Standards.

News Broadcasting Standards Authority (NBSA):

- News Broadcasting Standards Authority is an **independent body set up by the News Broadcasters Association (NBA).**
- Its task is to **consider and adjudicate** upon **complaints about broadcasts.**
- It is empowered to **warn, admonish, censure, express disapproval and fine the broadcaster a sum up to Rs. 1 lakh for violation of the Code.**
  - The NBA has devised a Code of Ethics to regulate television content as a self-regulation mechanism.

2. Chinese astronauts dock with new space station

What's in News?

- The first group of Chinese astronauts have entered the country's under-construction space station.

Details:

- The **Shenzhou-12 spaceship** carried the three astronauts to Tianhe.
  - Tianhe is the main module of its first permanent space station by China.
- This is a major step in China's plans to have a **fully functioning space station by 2022.**

https://byjus.com

- **China's first space station called Tiangong** is set to be functional by the end of 2022 and is the second space station only after **the <u>International Space Station</u>.**
- The Space Station China is building is called Tiangong which means "Heavenly Space".

3. U.S. to make Juneteenth a federal holiday

<u>What's in News?</u>

The U.S. is set to **declare a federal holiday commemorating the end of slavery on June 19ᵗʰ or Juneteenth.**

- Juneteenth commemorates June 19, 1865, when Union soldiers brought the news of freedom to enslaved Black people in Galveston, Texas.
- It is on this day that the **enslaved Black people in Galveston learned that the Emancipation Proclamation had freed them.**
- This move is considered a **major step forward in recognizing the wrongs of the past.**

G. Tidbits

1. Students freed as court rejects police's stand

<u>Background:</u>

The Delhi High Court granted bail to three students of Jawaharlal Nehru University and Jamia Millia Islamia arrested under the **Unlawful Activities (Prevention) Act (UAPA)** in connection with the **northeast Delhi riots** in 2020.

This topic has been covered in <u>June 16th, 2021 CNA.</u>

<u>Details:</u>

- A Delhi court has **issued the release warrant** for the student activists.
- The High Court also ruled that **no offence under the UAPA was made out against any of the three students.**
- The Delhi Police have moved the Supreme Court challenging the High Court verdict granting regular bail to the three students.

2. Centre opens 14 disability early intervention centres

<u>What's in News?</u>

The Union Social Justice and Empowerment Ministry has launched 14 **cross-disability early intervention centres** across the country.

- The centres would **provide support to infants and young children at risk of or with disabilities.**

<u>Significance:</u>

- Early intervention can provide **specialised support and services for infants and young children at-risk or with disability or developmental delay.**

- It can **assist their families to help them in their overall development, well-being and participation in family and community life.**

3. Shah launches helpline for cyber fraud

What's in News?

Union Home Minister has launched a **national helpline and its reporting platform for preventing financial loss due to cyber fraud.**

- The helpline has been made operational by the **Indian Cyber Crime Coordination Centre**, in coordination with the **Reserve Bank of India, all major banks, payment banks, wallets and online merchants.**

H. UPSC Prelims Practice Questions

Q1. Which one of the following statements best describes Bonn Challenge?

a. It is a global goal to bring 150 million hectares of degraded and deforested landscapes into restoration by 2020 and 350 million hectares by 2030.
b. The objective is to protect human health and the environment against the adverse effects of hazardous wastes.
c. It is a global treaty to protect human health and the environment from Persistent Organic Pollutants (POPs).
d. It aims to combat illicit wildlife trafficking by stimulating political will, improving law enforcement, and reducing consumer demand.

Answer: a

Explanation:

- Bonn Challenge is a global goal to bring 150 million hectares of degraded and deforested landscapes into restoration by 2020 and 350 million hectares by 2030.

- It was launched by the Government of Germany and IUCN.

- The Bonn Challenge unites nations and regions in bringing landscapes into restoration, to halt and reverse the effects of land degradation. Also read: Desertification

Q2. Which of the following is/are related to the development of education in India?

1. Fowler Committee
2. Hartog Committee
3. MacDonnell Commission
4. Sadler Commission
5. Wood's Despatch

Options:

a. 1, 2 and 3 only
b. 2, 3, 4 and 5 only
c. 1, 2, 3, 4 and 5

d. 2, 4 and 5 only

Answer: d

Explanation:

- The Wood's Despatch is considered as the 'Magna Carta of English Education in India. In 1854, Charles Wood sent a despatch to Lord Dalhousie, the then Governor-General of India. Through the despatch, he suggested that high schools must use anglo-vernacular medium and that English should be the medium for college-level education.
- The Calcutta University Commission under the Chairmanship of the late Sir Michael Sadler was appointed in 1917. It looked into the question of secondary education.
- Sir Philip Joseph Hartog committee was appointed by the British Indian government to survey the growth of education in India. The Hartog committee on education submitted its report in 1929.
- The Fowler Committee (Indian Currency Committee) was a government committee appointed by the British Government in 1898 to examine the currency situation in India.
- MacDonnell Commission (famine commission) was appointed by Lord Curzon in 1901 to formulate the general principles of dealing with famines.

Q3. A wetland can be considered internationally important if it meets which of the following criterion/criteria?

1. Contains a representative, rare, or unique example of a natural or near-natural wetland type found within the appropriate biogeographic region.
2. If it supports vulnerable, endangered, or critically endangered species or threatened ecological communities.
3. If it supports plant and/or animal species at a critical stage in their life cycles, or provides refuge during adverse conditions
4. If it regularly supports 20,000 or more waterbirds

Options:

a. 1, 2 and 3 only
b. 2, 3 and 4 only
c. 1, 3 and 4 only
d. 1, 2, 3 and 4

Answer: d

Explanation:

A wetland can be considered internationally important under the Ramsar Convention if it meets one of the following criteria:

1. Contains a representative, rare, or **unique example** of a natural or near-natural wetland type found within the appropriate biogeographic region.

2. If it supports **vulnerable, endangered, or critically endangered species** or threatened ecological communities.
3. If it supports populations of plant and/or animal species important for maintaining the **biological diversity** of a particular biogeographic region.
4. If it supports plant and/or animal species at a **critical stage in their life cycles**, or provides refuge during adverse conditions.
5. If it regularly supports 20,000 or more **waterbirds**.
6. If it regularly supports **1% of the individuals in a population of one species or subspecies of waterbird**.
7. if it supports a **significant proportion of indigenous fish subspecies**, species or families, life-history stages, species interactions and/or populations that are representative of wetland benefits and/or values and thereby contributes to global biological diversity.
8. If it is an **important source of food for fishes, spawning ground, nursery and/or migration path** on which fish stocks, either within the wetland or elsewhere, depend.
9. If it regularly supports **1% of the individuals in a population of one species or subspecies of wetland-dependent non-avian animal species**.

Q4. Consider the following statements about Miyazaki mangoes:

1. They are grown primarily in South Korea.
2. These mangoes are rich in antioxidant and contain beta-carotene and folic acid, which is great for people that need help with tired eyes.

Which of the above statements is/are correct?

a. 1 only
b. 2 only
c. Both
d. None

Answer: b

Explanation:

- They are grown primarily in Miyazaki – a city in Japan.
- These mangoes are rich in antioxidant and contain beta-carotene and folic acid, which is great for people that need help with tired eye

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Q5. Which of the following is geographically closest to Great Nicobar? (UPSC 2017)

a. Sumatra
b. Borneo
c. Java
d. Sri Lanka

Answer: a

Explanation:

I. UPSC Mains Practice Questions

1. As India confronts the problem of ISIS returnees, should India accept them? Critically examine. (10 Marks, 150 Words) [GS-3, Security]

2. Technology can play a critical role in transforming healthcare in India. Illustrate with examples. (10 Marks, 150 Words) [GS-2, Health]