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OCTOBER 2023
WEEKLY CURRENT AFFAIRS

YOJNA IAS WEEKLY CURRENT AFFAIRS
22/10/2023 TO 29/10/2023

WEEKLY CURRENT AFFAIRS

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YUVA SANGAM

This article covers "Daily Current Affairs", and the topic details "Yuva Sangam". This topic has relevance in the "Polity and Governance" section of the UPSC CSE exam.

For Prelims:

What is Yuva Sangam?

What is Ek Bharat Shreshtha Bharat?

For Mains:

GS2: Polity and Governance

Important Government Schemes and Policies

Why in the news?

The registration portal for Phase III of Yuva Sangam, an Ek Bharat Shreshtha Bharat (EBSB) component, has been recently launched.

About Yuva Sangam:

- Yuva Sangam is an initiative by the Government of India to **strengthen connections among young individuals from different States/Union Territories** of India.

- **Eligibility:** Youth in the age group of 18-30 years, including students, NSS (National Service Scheme)/NYKS (Nehru Yuva Kendra Sangathan) volunteers, employed/self-employed individuals, etc.

- This initiative, launched under EBSB, draws inspiration from the National Education Policy (NEP) 2020.

- Its core focus is experiential learning and firsthand exposure to India's rich diversity.

- Yuva Sangam is an ongoing cultural exchange that celebrates diversity by offering participants immersive experiences covering various aspects of life, natural landscapes, developmental mile-

stones, recent achievements, and youth connections in the host state.

- Phase III of Yuva Sangam involves twenty distinguished institutions across India, with participants from these Higher Education Institutions (HEIs) visiting 22 states and Union Territories.

Ek Bharat Shreshtha Bharat

- Ek Bharat Shreshtha Bharat is an initiative launched by the Indian Government to foster mutual understanding and connections among the diverse states and union territories in India.

- Prime Minister Narendra Modi announced this program on October 31, 2015, during the 140th birth anniversary of Sardar Vallabhbhai Patel.

- The **Department of Higher Education, Ministry of Education**, implements the scheme.

- **The primary objectives of this program are as follows:**

  o To **celebrate India's unity in diversity** and preserve and strengthen the traditional emotional bonds that connect the people of our nation.

  o To **facilitate interactions and encourage mutual understanding between the residents of different states** and union territories through a concept known as state/UT pairing.

- Each state or union territory is paired with another every year, promoting reciprocal interactions among the people. This exchange is expected to enhance understanding and foster stronger bonds, ultimately reinforcing the unity and integrity of India.

Sources:

pib.gov.in/PressReleaseIframePage.aspx?PRID=1968709

Q1. With reference to Yuva Sangam, consider the following statements:

1. It is a component of the Mera Gaon Meri Dharohar program.

2. It aims to strengthen connections among young individuals from different States/Union Territories.

3. The program draws inspiration from the National Education Policy (NEP) 2020.

Which of the statements given above is/are correct?

(a) 1 and 2 only

(b) 2 and 3 only

(c) 3 only

(d) None

Answer: (b)

Q2. Consider the following statements with reference to Ek Bharat Shrestha Bharat Scheme:

1. The Scheme aims to foster mutual understanding among the diverse states in India.

2. The Ministry of Culture implements the scheme.

3. Every year, each state/ union territory is paired with another state/ UT for promoting people-people interactions.

How many of the abovementioned statements are correct?

(a) Only one

(b) Only two

(c) All three

(d) None

Answer: (b)

Q3. Discuss the concept of regionalism in India and examine the government's initiatives to address and manage regional disparities.

MANUAL SCAVENGING

This article covers "Daily Current Affairs" and the topic details "Manual Scavenging". This topic has relevance in the Social Issues section of the UPSC CSE exam.

GS 2: Social Issues

Why in the news?

The Supreme Court has issued a series of directives to both the central and state governments, with the aim of entirely eliminating manual scavenging. Furthermore, the court has called for an increase in compensation in situations of fatality or injury.

Background:

- The court acknowledged the petition filed in 2020, bringing to its attention the pressing issue of fatalities in sewers, despite the practice being legally banned.

- The practice of manual scavenging was prohibited through the enactment of the Employment of

Manual Scavengers and Construction of Dry Latrines (Prohibition) Act, 1993, and the Prohibition of Employment as Manual Scavengers and their Rehabilitation Act, 2013.
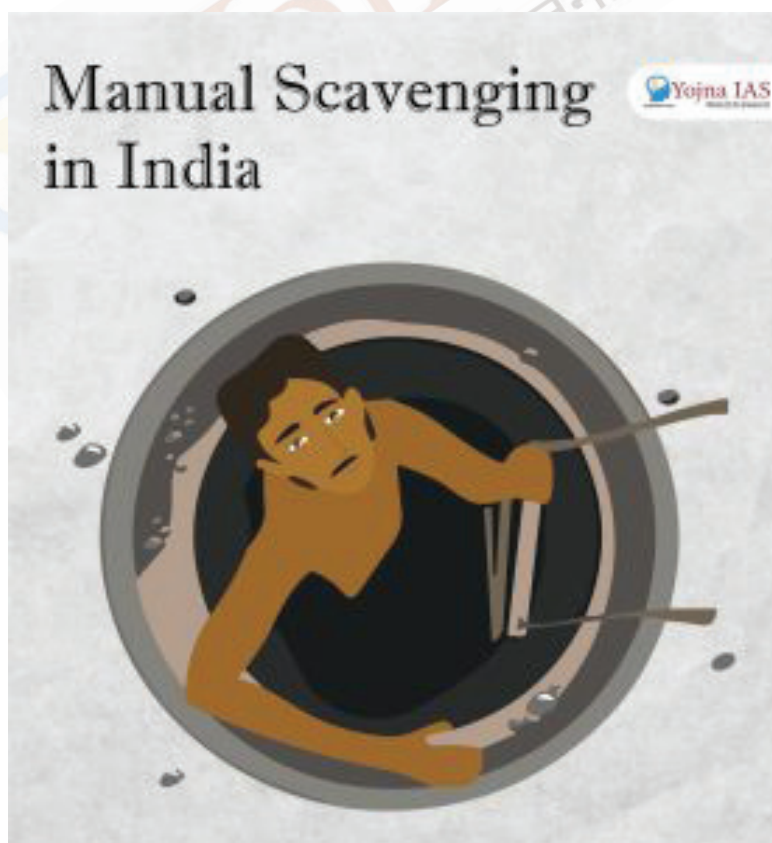
- The court initiated proceedings against various government entities, including the Ministry of Social Justice and Empowerment, the National Commission for Scheduled Castes, and the National Commission for Scheduled Tribes.

Safai Karamchari Andolan and others vs. Union of India:

- In a landmark case, the Supreme Court reinforced the ban on manual scavenging and issued directives for the rehabilitation of individuals, both traditionally and otherwise, engaged in this hazardous practice. The judgment emphasized that rehabilitation should be founded on principles of justice and transformation.

- The judgment underscored the necessity for rehabilitation that aligns with principles of justice and transformation. Moreover, it emphasized that individuals liberated from manual scavenging should not face unnecessary obstacles in obtaining what is rightfully theirs under the law.

Definition of Manual Scavenging:

- Manual scavenging involves the manual removal of human and animal waste from dry toilets, followed by its transportation and disposal. According to the "Prohibition of Employment as Manual Scavengers and their Rehabilitation Act, 2013 (MS Act, 2013)," it encompasses tasks like manually cleaning, carrying, disposing of, or handling human excreta in insanitary latrines. This practice was officially banned by the anti-manual scavenging Act in 1993 and further reinforced in 2013, making it illegal since December 2013.

Manual Scavenging in India

Government Initiatives:

- **Prohibition of Manual Scavenging:**

  o The Prohibition of Employment as Manual Scavengers and their Rehabilitation Act, 2013, not only prohibits the construction or maintenance of unhygienic toilets but also forbids the employment of individuals in cleaning sewer pipes and swimming pools through hazardous manual methods.

  o The Act also outlines measures to rehabilitate individuals identified by municipalities as service providers in this context.

- **Constitutional Rights:**

  o Article 21 of the Constitution guarantees the 'Right to Life' and 'Right to Dignity,' reinforcing the government's obligation to eradicate the dehumanizing practice of manual scavenging.

- **Swachhta Abhiyan App:**

  o The government has developed the Swachhta Abhiyan App to identify and geotag data related to insanitary latrines and manual scavengers. The primary objective is to replace insanitary latrines with sanitary ones and ensure the rehabilitation of manual scavengers, thereby affording them a life of dignity.

The Way Forward

- **Accurate Assessment:** Nation should conduct comprehensive assessments to accurately determine the number of workers involved in hazardous tasks like cleaning toxic waste.

  o **Empowering Local Authorities:** Prioritizing the elimination of manual scavenging under initiatives like the Swachh Bharat Mission and utilizing the available funds for smart cities and urban development can effectively address the issue of manual scavenging.

  o **Social Sensitization:** Addressing the deeply entrenched issue of social stigma and discrimination against manual scavengers is crucial. This requires a concerted effort to raise awareness and understanding about the reasons behind the continued inclusion of manual scavenging in the societal hierarchy.

  o **Stringent Legislation:** Enacting and enforcing stringent laws that impose a legal obligation on state organs to provide proper sanitation services can help safeguard the rights of these workers. Such legislation would ensure that their rights are not violated and that they are not subjected to hazardous practices.

Source:

Q.1   Consider the following statements about Manual scavenging:

1. Manual scavenging was officially prohibited by the Prohibition of Employment as Manual Scav-

engers and their Rehabilitation Act, 1993.

2. Swachhta Abhiyan App identifies and geotags data related to insanitary latrines and manual scavengers.

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

ANSWER: C

Q.2 Discuss the socio-economic and human rights challenges associated with manual scavenging in India, and evaluate the effectiveness of government initiatives and legislation in eradicating this degrading practice.

UNWTO BEST TOURISM VILLAGES

This article covers "Daily Current Affairs", and the topic details "UNWTO Best Tourism Villages". This topic has relevance in the "Current Events" section of the UPSC CSE exam.

For Prelims:

Which are Best Tourism Villages 2023?

What is the United Nations World Tourism Organization (UNWTO)?

Why in the news?

Dhordo, a village located in Gujarat, has gained global acclaim by earning a spot in the roster of the top 54 tourism villages recognised by the World Tourism Organization (UNWTO).

Best Tourism Villages

- The United Nations World Tourism Organization (UNWTO) introduced this initiative as a component of its broader Tourism for Rural Development Programme.
- The program's primary mission is to promote development and inclusivity in rural regions, address depopulation challenges, promote innovation and the integration of value chains through tourism, and advocate for sustainable practices.
- The recognition bestowed by this accolade is reserved for villages at the forefront of revitalising rural areas, safeguarding landscapes, preserving cultural diversity, upholding local values, and nurturing culinary traditions.

- UNWTO assesses the villages based on nine fundamental criteria, encompassing aspects such as
  1. Cultural and Natural Resources
  2. Promotion and Conservation of Cultural Resources,
  3. Economic Sustainability,
  4. Social Sustainability,
  5. Environmental Sustainability,
  6. Tourism Development and Value Chain Integration,
  7. Governance and Prioritization of Tourism,
  8. Infrastructure and Connectivity,
  9. Health, Safety, and Security
- These criteria collectively guarantee that the recognised villages are picturesque destinations and places where the local culture and environment are safeguarded and where tourism contributes to the well-being of the entire community.

United Nations World Tourism Organization (UNWTO)

- The United Nations World Tourism Organization (UNWTO) is a specialised agency of the United Nations headquartered in Madrid, Spain.
- Mission: To promote responsible, sustainable, and globally accessible tourism.
- UNWTO is an international platform where governments, tourism entities, and stakeholders convene to discuss and coordinate tourism-related policies and initiatives.
- It is the primary international body dedicated to advancing tourism as a catalyst for economic growth, inclusive development, and environmental sustainability.
- The organisation's key priorities include:
  ◦ Integrating tourism into the global agenda
  ◦ Advocating for sustainable tourism development
  ◦ Nurturing knowledge, education, and capacity building
  ◦ Enhancing competitiveness within the tourism sector
  ◦ Amplifying tourism's role in reducing poverty and fostering development
  ◦ Establishing partnerships
- UNWTO comprises 159 Member States, 6 Associate Members, 2 Observers, and more than 500 Affiliate Members.
- The General Assembly serves as the highest authority within the organisation.
- The Executive Council oversees the execution of decisions and recommendations made by the General Assembly.
- Publications
  ◦ UNWTO Annual Report
  ◦ UNWTO World Tourism Barometer
  ◦ Knowledge Network Issues Paper Series
  ◦ Visa Openness Report

Sources:

As Gujarat's Dhordo village gets UNWTO recognition, PM
Modi says it showcases India**'s tourism potential – The Hindu**

Q1. With reference to Best Tourism Villages, consider the following statements:

1. Best Tourism Villages are recognised by the UN World Tourism Organization.

2. Dhordo, which is a village located in Rajasthan, has been awarded the Best Tourism Village in India.

Which of the statements given above is/are correct?

(a) 1 only
(b) 2 only
(c) Both 1 and 2
(d) None
Answer: (a)

Q2. Consider the following with reference to the UN World Tourism Organization.

1. The United Nations World Tourism Organization (UNWTO) is a principal organ of the United Nations.

2. It is headquartered in Madrid, Spain.

3. It publishes the World Tourism Barometer and Visa Openness Report.

How many of the abovementioned statements are correct?

(a) Only one
(b) Only two
(c) All three
(d) None
Answer: (b)

BANNERGHATTA NATIONAL PARK

This article covers "Daily Current Affairs" and the topic details " Bannerghatta National Park". This topic has relevance in the Environment section of the UPSC CSE exam.

GS 3: Environment

Why in the news?

The Central Empowered Committee (CEC), established by the Supreme Court, has instructed the office of Karnataka's chief secretary to provide a response concerning the encroachment within the eco-sensitive zone (ESZ) of the Bannerghatta National Park.

About Bannerghatta National Park:

Bannerghatta National Park, located in the state of Karnataka near Bangalore, has a rich history and diverse wildlife. It was established in 1940 and gained the status of a national park in 1974. Situated within the Anekal range of mountains, this park serves as a vital habitat for elephants and plays a crucial role as a wildlife corridor, connecting the BR Hills and Sathyamangalam forest regions.

Key Information about Bannerghatta National Park:

- Location: Bannerghatta National Park is situated approximately 22 kilometers to the south of Bangalore, Karnataka. It is nestled in the picturesque Anekal range of mountains.
- Buffer Zone Controversy: The park's buffer zone, also known as the Eco-Sensitive Zone (ESZ), was originally declared to be 268.96 square kilometers. However, a recent proposal has led to a reduction in the buffer zone size to 169 square kilometers. This decision has faced criticism from wildlife activists who are concerned about its potential impact on the park's ecosystem.
- Total Area: The national park covers a vast area of 65,127.5 acres.
- Adjacent Reserves: The Talli reserve forest is located in the southeast direction of Bannerghatta National Park, while the Bilikal forest lies to its south.
- Bannerghatta Biological Park: In 2002, a portion of the national park was designated as a zoological garden, now known as Bannerghatta Biological Park. This section serves as a conservation and education center.
- Butterfly Enclosure: A notable addition to the Bannerghatta Biological Park in 2006 was the inauguration of a butterfly enclosure, which offers visitors the opportunity to observe various butterfly species in a controlled environment.
- Flora: The park encompasses diverse ecosystems, including scrub-type or dry deciduous forests, southern tropical moist mixed forests, and southern tropical dry deciduous forests.
- Fauna: Bannerghatta National Park is home to a wide variety of wildlife, including elephants, Chital (spotted deer), Striped Hyena, Barking Deer, Peafowl, Porcupine, Grey Jungle Fowl, crocodiles, Partridges, tortoises, various butterfly species, pythons, and many other species.

Karnataka National Park Map

Q.1 Consider the following statements:

1. Bannerghatta National Park is situated in Karnataka.

2. Bannerghatta National Park is located in the Anekal mountains range.

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
ANSWER: C

Q.2   Bannerghatta National Park in Karnataka, India, is not only a biodiverse haven but also a center of ecological discussions. Discuss?

PM ANUSUCHIT JAATI ABHUYDAY YOJANA

This article covers "Daily Current Affairs" and the topic details "Pradhan Mantri Anusuchit Jaati Abhuyday Yojana (PM-AJAY)". This topic has relevance in the "Polity and Governance" section of the UPSC CSE exam.

For Prelims:

What is Pradhan Mantri Anusuchit Jaati Abhuyday Yojana (PM-AJAY)?

For Mains:

*   GS2: Polity and Governance
*   Welfare schemes for vulnerable sections by the Centre and States and the performance of these schemes

Why in the news?

In the current financial year, 1260 villages became Adarsh Grams, and nine new hostels were approved for construction under Pradhan Mantri Anusuchit Jaati Abhuyday Yojana (PM-AJAY).

Pradhan Mantri Anusuchit Jaati Abhuyday Yojana (PM-AJAY)

- The Pradhan Mantri Anusuchit Jaati Abhuyday Yojana (PM-AJAY) is a comprehensive program initiated in 2021-22, encompassing the merger of three centrally sponsored schemes:

1. **Pradhan Mantri Adarsh Gram Yojana (PMAGY)**

2. **Special Central Assistance to Scheduled Castes Sub Plan (SCA to SCSP)**

3. **Babu Jagjivan Ram Chhatrawas Yojana (BJRCY)**

- This integrated scheme aims to uplift Scheduled Caste (SC) communities by generating additional employment opportunities through skill development, income-generating projects, and various initiatives.
- The Pradhan Mantri Anusuchit Jaati Abhuyday Yojana (PM-AJAY) is implemented by the Ministry of Social Justice and Empowerment.

Key Objectives of PM- AJAY:

- Reducing poverty within SC communities.
- Creating additional employment opportunities through skill development and income-generating schemes.
- Enhancing socio-economic indicators.
- Ensuring adequate infrastructure in SC-dominant villages.
- Elevating the living standards and livelihood security of SC families.
- Promoting education and addressing maternal and infant mortality.
- Eliminating malnutrition, particularly among children and women.

Components of PM- AJAY:

- Development of SC Dominated Villages (Adarsh Gram)
  - The primary goal of this component is the integrated development of SC-majority villages.
  - It includes providing essential infrastructure and improving socio-economic indicators to eliminate disparities between SC and non-SC populations.
- Grants-in-Aid for District/State-level Projects
  - This component focuses on the socio-economic betterment of SCs and may encompass the following types of projects:
  - Comprehensive Livelihood Projects: Projects that create sustainable income opportunities for SCs.
  - Skill Development: Skill development courses and infrastructure as per government norms.
  - Grants for Creation/Acquisition of Assets: Financial assistance for asset creation needed for livelihood generation.
  - Infrastructure Development: Enhancing infrastructure related to projects, including hostels and residential schools.

Special Provisions for Allocation of Resources

- Economically Viable Projects for SC Women – Up to 15%
- Infrastructure Development – Up to 30%
- Skill Development – At least 10%
- Promotion of SC women cooperatives involved in producing and marketing consumer goods and services.

- Construction of Hostels
  - This component focuses on constructing hostels in top-ranked higher educational institutions and schools funded by the central, state, or union territory governments.

Sources:

Press Information Bureau (pib.gov.in)

Q1. With reference to Pradhan Mantri Anusuchit Jaati Abhuyday Yojana (PM-AJAY), consider the following statements:

1. PM AJAY is a central sector scheme.
2. It is being implemented by the Ministry of Tribal Affairs.
3. This integrated scheme aims to uplift Scheduled Tribes (ST) communities.

Which of the statements given above is/are correct?

(a) 1 and 2 only
(b) 2 and 3 only
(c) 3 only
(d) None
Answer: (d)

Q2. Consider the following:

1. Development of Villages
2. Skill Development
3. Infrastructure Development
4. Construction of Hostels
5. Scholarships to Meritorious Students

How many of the above are components/ sub-components of Pradhan Mantri Anusuchit Jaati Abhuyday Yojana?

(a) Only one
(b) Only two
(c) Only three
(d) Only four
Answer: (d)

Q3. Discuss the various welfare schemes for Scheduled Caste (SC) communities in India. Analyse the key challenges and achievements in the implementation of these schemes.

EDAKKAL CAVES

This article covers "Daily Current Affairs" and the topic details " Edakkal Caves". This topic has relevance in the Art and Culture section of the UPSC CSE exam.

GS 1: Art and Culture

Why in the news?

Kerala Tourism has initiated a project worth ₹2.9 crore to enhance public facilities around the Edakkal Caves in Wayanad.

About Edakkal Caves

The Edakkal Caves, located in the Wayanad district of Kerala on Ambukutty Mala, a prominent hill in the region, hold great historical and cultural significance. These caves are not your typical caves but rather natural clefts, rifts, or rock shelters formed when a piece of rock split away from the main hill. It was discovered in 1890 by British police official Fred Fawcett.

Significance of the Edakkal Caves:

- Historical Significance: The caves are historically significant due to their proximity to an ancient trade route connecting the high mountains of Mysore to the ports of the Malabar Coast.
- Pictorial Writings: Inside the Edakkal Caves, one can find pictorial writings that date back to at least 6,000 BCE during the Neolithic period.
- Unique Stone Age Carvings: The Stone Age carvings found in these caves are rare and represent the only known examples from South India, belonging to the Mesolithic era.
- Cultural Significance: The petroglyphs found in the caves include depictions of human and animal figures, tools used by humans, and enigmatic symbols that are yet to be deciphered. These artworks indicate a rich cultural and historical heritage.
- Indus Valley Connection: Some of the paintings found in the Edakkal Caves, particularly those depicting a "man with a jar cup," have led to speculation about a possible connection to the Indus Valley civilization.

Q.1 Edakkal Caves, recently seen in the news are situated in:

1. Tamil Nadu
2. Kerala
3. Andhra Pradesh
4. Karnataka

ANSWER: B

Q.2 Consider the following statements about Edakkal Caves:

1. It was discovered in 1890 by Fred Fawcett.
2. Inside the caves, pictorial writings dating back to at least 6,000 BCE during the Neolithic period can be found.

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

ANSWER: C

Q.3   Discuss the historical and cultural significance of cave architecture in India, with a focus on notable cave complexes and their contributions to art, religion, and the preservation of ancient heritage

ESIM

This article covers "Daily Current Affairs" and the topic details "eSIM". This topic has relevance in the "Science and Technology" section of the UPSC CSE exam.
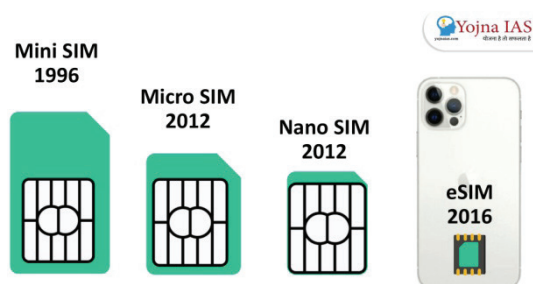
For Prelims:

What is SIM?

What is eSIM?

Why in the news?

Marking a new era, tech industry leaders such as Apple with its iPhones, Google's Pixel series, and Samsung have incorporated eSIM capability into their products.

Background Information: SIM

- **A 'SIM,' short for 'subscriber identification module,' is an integrated circuit or microchip that identifies a subscriber within a particular network.**

- This SIM card is a small, removable card used in mobile phones and other cellular devices.

- It contains essential information that identifies the device to the mobile network, including a unique serial number (IMSI), the mobile network's information, and a secure element for authentication.

- **SIM cards adhere to the ISO/IEC 7816 International Standard** maintained by the International Organization for Standardization and the International Electrotechnical Commission.

What is eSIM?

- An eSIM, short for "embedded SIM," is a digital SIM card built into a mobile device instead of a physical removable card like a traditional SIM card.

- eSIM technology allows users to activate and switch between mobile networks and plans without needing a physical SIM card replacement.

Key features and characteristics of eSIMs include:

- **Embedded Nature:** eSIMs are integrated into the device during manufacturing and cannot be removed or replaced by the user. This design saves physical space in the device.

- **Remote Provisioning:** eSIMs can be remotely provisioned or activated by the user or mobile service provider. This means users can choose their mobile plan and network by downloading the necessary data to the eSIM, eliminating the need for a physical card.

- **Multiple Profiles:** Many eSIM-enabled devices can store multiple profiles, allowing users to switch between different mobile service providers or plans directly on the device without

changing the SIM Card.

- **Compatibility:** eSIM technology is becoming more widespread and is supported by various mobile carriers and device manufacturers, making it easier for users to use eSIM functionality.

- **International Roaming:** eSIMs are particularly useful for international travellers. Users can add or switch to a local carrier's plan while travelling, avoiding expensive international roaming fees.

- **Environmental Impact:** The reduction of physical SIM cards can reduce e-waste and the environmental impact associated with manufacturing and disposing plastic SIM cards.

Key challenges associated with eSIM technology:

- **Interoperability:** Varying standards can cause compatibility issues between carriers and devices. eSIM interoperability means an eSIM's ability to work with multiple carriers.

- **Security:** eSIMs require strong security measures to protect against data breaches and software attacks like eSIM swapping.

- **Regulation:** Developing regulatory frameworks for eSIM technology is a complex task that involves balancing innovation and consumer protection.

- **Limited eSIM Adoption:** Not all carriers have embraced eSIM technology, especially when serving localised audiences.

- **Support and Monitoring Challenges:** IoT adopters have cited a lack of technical support and monitoring tools as a significant challenge.

- **Data Privacy Concerns:** eSIM technology theoretically allows network operators to track subscriber data, including activity within apps on the device.

- **User Digital Literacy:** In some countries, like the United States, subscribers can self-program eSIMs. This may be challenging for individuals with low digital literacy, including elderly users.

Sources:

How do SIM cards work? | Explained – The Hindu

Q1. With reference to SIM, consider the following statements:

1. SIM stands for 'Service Information Module' and is an integrated circuit or microchip that identifies a subscriber within a particular network.
2. Currently, SIM Cards are used only in mobile phones.

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

Answer: (d)

Q2. Consider the following:

1. Saves physical space in the device
2. Store multiple profiles
3. Useful for travellers
4. Universal Compatibility
5. Unparalleled Security

How many of the above are advantages of eSIM technology?

(a) Only one
(b) Only two
(c) Only three
(d) Only four

Answer: (c)

Q3. Discuss key features and and challenges of eSIM technology on the mobile telecommunications industry and its users.

CALDERA

This article covers "Daily Current Affairs" and the topic details "Caldera". This topic has relevance in the Geography section of the UPSC CSE exam.
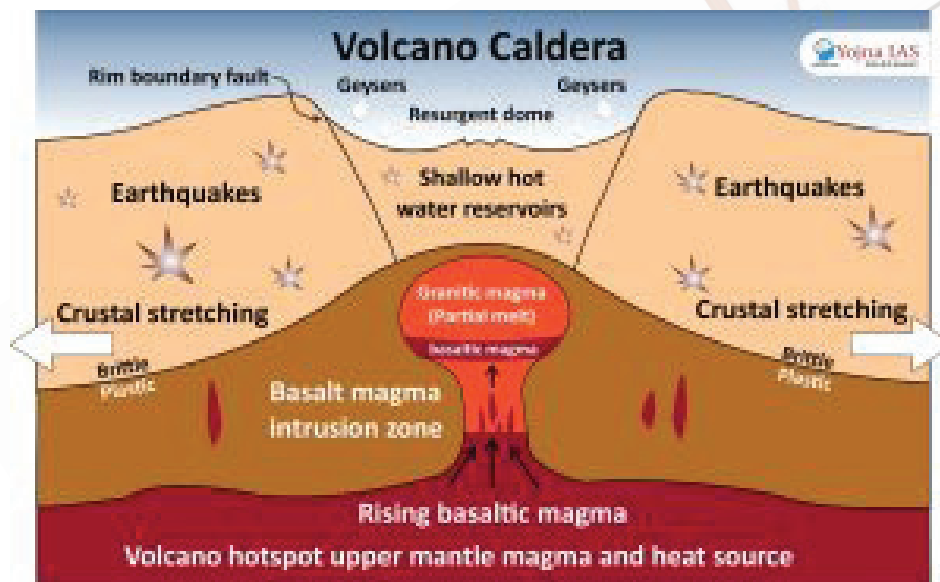
GS 1: Caldera

Why in the news?

Scientists at the California Institute of Technology (Caltech) have detected over 2,000 earthquakes occurring in the Long Valley Caldera in recent years.

About Long Valley Caldera:

- The Long Valley Caldera is a dormant supervolcano situated in the Eastern Sierra Nevada Mountains of California, USA. It was formed approximately 760,000 years ago by a super-eruption that expelled about 140 cubic miles of magma. This eruption blanketed much of east-central California with hot ash, which was even carried as far as what is now Nebraska.

- Since 1978, the caldera has been experiencing regular earthquake swarms, leading to concerns that it may be at risk of erupting again. Despite its dormant status, the ongoing seismic activity

serves as a reminder of the caldera's volatile past and potential future.

- **Caldera definition**: A caldera is a large, bowl-shaped depression formed by the collapse of a volcano after a massive eruption. It is the most destructive type of volcanic eruption. Calderas may have uneven shapes due to different rates of collapse.

- **Caldera types**: There are three main types of calderas, based on their formation and characteristics. They are:

  o **Crater-lake calderas**: These are formed by the collapse of a stratovolcano after a Plinian eruption, which is very explosive and releases huge amounts of lava, ash, and rocks. These calderas often fill with water, forming lakes.

  o **Shield volcano calderas**: These are formed by the gradual subsidence of a shield volcano due to the periodic release of lava. This is less explosive and produces fountains of lava. These calderas have nested or terraced shapes, rather than a single large depression.

  o **Resurgent calderas**: These are the largest and rarest type of calderas, formed by the widespread collapse of vast magma chambers due to extremely destructive eruptions called pyroclastic sheet flows. These eruptions have not occurred in historic times. These calderas may rise again due to magma pressure, forming domes or islands.

SOURCE:

California's supervolcano cooling down but may still cause quakes: Report

Q.1 Consider the following statements:

1. Crater-lake calderas result from the collapse of stratovolcanoes .

2. Shield volcano calderas form gradually due to less explosive lava releases, creating nested or terraced depressions.

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

ANSWER: C

Q.2   Discuss the correlation between the distribution of volcanoes and earthquake belts. How do tectonic plate boundaries play a pivotal role in shaping these patterns?

APAAR ID

This article covers "Daily Current Affairs" and the topic details "APAAR ID". This topic has relevance in the "Social Issues" section of the UPSC CSE exam.

For Prelims:

What is APAAR ID?

For Mains:

GS2: Social Issues?

Why in the news?

The government has introduced a new student identification card called the **Automated Permanent Academic Account Registry (APAAR) ID** as part of the '**One Nation, One Student ID**' program, which aligns with the recently implemented National Education Policy of 2020.

Automated Permanent Academic Account Registry ID

- **APAAR**, the Automated Permanent Academic Account Registry, introduces an exclusive **identification system for all Indian students from childhood.**

- Each student is allocated a **lifelong APAAR ID,** simplifying the monitoring of their educational journey from **pre-primary education to higher studies.**

- APAAR is **a portal to Digilocker**, a digital platform where students can securely preserve vital documents and achievements, including exam results and report cards.

- This digital repository facilitates easy access and utilisation of documents for future educational pursuits or employment.

Purpose of APAAR

- **Efficiency and Accessibility:** APAAR's core purpose is to enhance education by streamlining processes and eliminating the need for physical document handling, aligning with the National Education Policy 2020.

- **Monitoring Educational Data:** APAAR facilitates positive change by enabling state governments to monitor educational metrics, equipping them with the resources needed to enhance their performance.

- **Anti-Fraud Measures:** APAAR safeguards against fraudulent and duplicate educational certificates, providing a singular, reliable reference point for educational institutions. Only authorised sources can deposit credits, ensuring record authenticity and integrity.

Working of APAAR ID

- **Unique ID:** Each person possesses a distinct APAAR ID linked to the **Academic Bank Credit (ABC)**, a digital repository storing educational credits.

- **Comprehensive Storage:** Students can securely preserve formal and informal certificates and achievements. Authorised institutions provide digital certification and storage.

- **Seamless Transfers:** When a student changes schools, sharing the APAAR ID instantly migrates all ABC data to the new institution, eliminating physical document and certificate transfers.

APAAR ID Registration Process

- **Data Input:** Students provide essential details like name, age, date of birth, gender, and a photograph.

- **Aadhar Verification:** Data is verified using the Aadhar number solely for matching name and date of birth; it isn't shared during registration.

- **Consent Option:** Students share their Aadhar number and demographic data with the Ministry of Education by signing a consent form.

- **Minors' Consent:** Parental consent is needed for minors, enabling the use of their Aadhar number for UIDAI authentication.

- **Voluntary Registration:** Registering for an APAAR ID is voluntary, not mandatory.

Concerns Regarding APAAR

- **Privacy Apprehensions:** Parents and students express concerns about sharing their Aadhar details, fearing potential data leaks to external entities.

- **Data Control:** Students can discontinue sharing their data with the mentioned entities at any time, with data processing ceasing upon withdrawal of consent. However, previously processed personal data remains unaffected even if consent is revoked.

o The government assures that information shared by students will remain confidential and won't be disclosed to third parties except for authorised educational entities and recruitment agencies.

Sources:

One nation, One Student ID' initiative (indianexpress.com)

Q1. With reference to the APAAR ID , consider the following statements:

1. APAAR stands for Automated Performance Academic Account Registry.

2. Under APAAR, each student is allocated a lifelong ID monitoring their educational journey from pre-primary education to higher studies.

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

Answer: (b)

Q2. Consider the following statements:

1. APAAR ID aligns with the recently implemented National Education Policy of 2020.

2. APAAR enables governments to monitor educational metrics to undertake policy interventions.

3. APAAR ID will be linked to the Academic Bank Credit (ABC)

4. Registering for the ID is mandatory for new students.

How many of the abovementioned statements are correct?

(a) Only one

(b) Only two

(c) Only three

(d) All Four

Answer: (c)

Q3. Discuss the significance of the APAAR (Automated Permanent Academic Account Registry) ID system in the context of the education sector.

BOND YIELD

This article covers "Daily Current Affairs" and the topic details " Bond Yield". This topic has relevance in the Economy section of the UPSC CSE exam.

For Prelims:

About Bond Yield?

Factors Affecting Bond Demand and Market Price?

For Mains:

GS 2: Economy

Impact of Bond Yield Hardening:?

Why in the news?

The yield on 10-year U.S. government bonds, which serves as a global benchmark for asset prices, has climbed to 5.02 percent. This marks its highest level since July 2007.

About Bond Yield:

- Bonds are financial instruments issued by governments and corporations to raise funds. The initial value at which a bond is issued is its face value, while its value in the secondary market is referred to as the market value.

- **Bond Yield:** Bond yield represents the return that an investor receives on their investment in a

specific bond. The yield is influenced by the bond's current market value.

- When the market value of a bond rises above its face value (the initial price at issuance), the rate of return for investors in the secondary market decreases. This situation is commonly referred to as a "softening of bond yields."

- Conversely, if the market value of a bond falls below its face value, the rate of return for investors in the secondary market increases. This is often described as a "hardening of bond yields."

Factors Affecting Bond Demand and Market Price:

Decreases Demand	Increases Demand
Market Price of the Bond Decreases	Market Price of the Bond Increases
Bond Yield Increases (Yield Hardening)	Bond Yield Decreases (Yield Softening)
Reasons: Increased Inflation, Sale of G-secs by the central bank under open market operations, Increased borrowings by the government (Increased fiscal deficit)	Reasons: Deflationary trends in the economy, Purchase of G-secs by the Central bank under open market operations, Reduced borrowings by the government
Loss to the Bond Holder	No Loss to the Bond Holder

Impact of Bond Yield Hardening:

- Loss to Banks: Commercial banks in India, which hold a significant amount of government securities (g-secs) for statutory liquidity ratio (SLR) requirements and liquidity adjustment facility (LAF) purposes, incur losses when bond yields rise. This is due to the inverse relationship between bond prices and yields, forcing banks to book these losses.

- Loss to Mutual Funds: Mutual funds, which also hold substantial amounts of g-secs, experience similar losses when bond yields increase.

- Increased Cost of Borrowings: A higher yield on G-secs means that the government must offer higher interest rates on new borrowings. Corporates may also need to raise interest rates on their bonds in response to rising bond yields in the market. Indian banks, following long-term G-sec rates to determine lending rates, may increase their lending rates as well.

- Impact on Equity Market: Rising bond yields increase the opportunity cost of investing in equities, making equities less attractive for investors.

Source:

https://indianexpress.com/article/explained/explained-economics/us-bond-yield-why-rising-explained-8997263/

Q.1 Consider the following statements about bonds and bond yields:

1. The face value of a bond is its market value.

2. Bonds are issued only by governments.

3.   Bond yield is influenced by the bond's current market value.

How many of the above statement/s is/are correct?

(a) Only one

(b) Only two

(c) All three

(d) None

ANSWER: A

Q.2   Consider the following statements about bond yields:

1.   "Softening of bond yields" occurs when the market value of a bond falls below its face value.

2.   "Hardening of bond yields" happens when the market value of a bond rises above its face value.

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

ANSWER: D

Q.3 Examine the role of the bond market as a vital component of the global financial system.

RCS – UDAN (UDE DESH KA AAM NAGRIK)

This article covers "Daily Current Affairs" and the topic details "RCS – UDAN (Ude Desh Ka Aam Nagrik)". This topic has relevance in the "Economy" section of the UPSC CSE exam.

For Prelims:

What is RCS – UDAN?

For Mains:

GS3: Economy

Infrastructure: Airports

Why in the news?

The Government of India's Regional Connectivity Scheme (RCS) – UDAN (Ude Desh Ka Aam Nagrik), has achieved a significant milestone in the country's aviation sector by celebrating six successful years in 2023.

RCS – UDAN (Ude Desh Ka Aam Nagrik)

- The Ude Desh Ka Aam Naagrik (UDAN) was introduced as a pivotal element of India's National Civil Aviation Policy (NCAP) in 2016 by the Ministry of Civil Aviation (MoCA).
- Objective: To establish economically sustainable and profitable flight services on regional routes, making air travel affordable for the general public, even in smaller towns.
- The scheme is designed to extend connectivity to airports in India that are either underserved or underserved.
- Underserved airports have no more than one daily flight, while unserved airports have no flight operations.
- UDAN's evolution has seen it progress from UDAN 1.0 to UDAN 5.2, with each iteration addressing specific challenges and requirements.

UDAN Version	Key Highlights
UDAN 1.0	• 5 airline companies awarded 128 flight routes to 70 airports, including 36 newly operational airports
UDAN 2.0	• Introduction of 73 underserved and unserved airports, including helipad connectivity
UDAN 3.0	• Inclusion of Tourism Routes in coordination with the Ministry of Tourism • Introduction of seaplanes for connecting Water Aerodromes • Expansion of the scheme to encompass various routes in the North-East Region
UDAN 4.0	• Focus on enhancing connectivity in the North-Eastern regions, hilly states, and islands • Incorporation of helicopter and seaplane operations
UDAN 5.1	• Creation of opportunities for helicopter routes and expansion of prospects for helicopter operators • Increased Viability Gap Funding (VGF) and reduced airfare caps
UDAN 5.2 (Ongoing)	• Aims to improve connectivity in remote and regional areas, with a particular emphasis on smaller aircraft (less than 20 seats)

RCS-UDAN's Impact on Aviation Industry:

- Expanded Fleet: RCS-UDAN has diversified the aircraft fleet serving RCS routes, including Airbus,

Boeing, ATR, DHC, Embraer, and Tecnam models. Indian carriers have ordered over 1,000 aircraft for the next decade, significantly expanding the nation's fleet.

- Tourism Promotion: RCS-UDAN not only offers last-mile connectivity but also boosts tourism. It has introduced tourism routes, especially in the Northeast, and expanded helicopter services in hilly regions, stimulating tourism, hospitality, and local economic growth.
- Connectivity: RCS-UDAN has connected 30 States/Union Territories with 75 operational airports, including eight in the Northeast. Several airports, like Darbhanga, Hubli, Kannur, and Mysuru, have become self-sustaining with non-RCS commercial flights, enhancing connectivity and regional development.
- Airlines Growth: Four new airlines have opened in the past six years, promoting a sustainable aviation business model.
- Diverse Aircraft Demand: The scheme's expansion has fueled demand for various aircraft types, from helicopters and seaplanes to propeller and jet planes.

Challenges Faced by the RCS-UDAN:

- Infrastructural Constraints: In remote areas, inadequate airport infrastructure requires significant upgrades to facilitate air travel.
- High Operating Costs: Operating in remote regions involves elevated costs that can affect the profitability of airline services.
- Airfare Caps: Airfare caps can restrict airline revenue, potentially discouraging services on specific routes.
- Commercial Viability: Certain routes do not exhibit the necessary demand for airlines to operate profitably, even with subsidies.
- Route Cessation: Several RCS routes have ceased operations, sparking concerns about the scheme's sustainability.

National Civil Aviation Policy (NCAP) 2016

- The National Civil Aviation Policy (NCAP) 2016 is a comprehensive framework to develop India's civil aviation sector.

Vision:

- NCAP 2016 envisions creating an ecosystem to make air travel affordable for the masses, with a target of 30 crore domestic ticketing by 2022 and 50 crore by 2027.
- It also aims to increase international ticketing to 20 crore by 2027.

Mission:

- The mission of NCAP is to ensure safe, secure, affordable, and sustainable air travel for passengers and cargo transportation, providing access to various parts of India and the world.

Objectives:

- NCAP aims to establish an integrated ecosystem to drive substantial growth in the civil aviation sector, boost tourism, generate employment, and promote balanced regional development.
- It also prioritises the safety, security, and sustainability of the aviation industry through the use of technology and effective monitoring.

UDAN has enhanced air connectivity to remote regions, stimulated airline growth, and boosted tourism in India's aviation industry. However, challenges related to commercial viability and airline sustainability remain. To ensure sustained air connectivity in smaller areas, collaboration among the government, industry stakeholders, and local authorities is vital. Key focus areas should include infrastructure, subsidies, operations, and awareness.

Sources:

Minister of Civil Aviation and accessible air travel for all

Q1. With reference to Ude Desh Ka Aam Naagrik (UDAN), consider the following statements:

1. The UDAN scheme has been implemented by the Ministry of Civil Aviation.

2. It aims to establish economically sustainable and profitable flight services on regional routes.

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

Answer: (c)

Q2. Consider the following statements with reference to UDAN:

1. The UDAN Scheme is based on India's National Civil Aviation Policy (NCAP) 2016.

2. It also incorporates helicopter and seaplane operations to improve connectivity.

3. The scheme aims to extend connectivity to airports in India that have no more than ten daily flights.

How many of the statements are correct?

(a) Only one

(b) Only two

(c) All three

(d) None

Answer: (b)

Q3. Examine the Regional Connectivity Scheme (RCS) – Ude Desh Ka Aam Nagrik (UDAN) in the context of India's National Civil Aviation Policy (NCAP) 2016.

REFERENCE FUEL

This article covers "Daily Current Affairs" and the topic details " Reference fuel". This topic has relevance in the Science and Technology section of the UPSC CSE exam.

For Prelims:

About Reference fuel?

For Mains:

GS 3: Science and Technology
Key Differences in Fuel Quality?

Why in the news?

India has commenced the production of 'reference' petrol and diesel, entering an exclusive group of nations manufacturing this highly specialized fuel essential for automobile testing.

About Reference fuel:

Reference fuels are specialized, high-quality gasoline and diesel products designed for the precise calibration and testing of automobiles by both automotive original equipment manufacturers (OEMs) and organizations involved in automotive testing and certification. These fuels are essential for various vehicle testing purposes, ensuring that the fuel used meets strict quality and performance standards.

Key Differences in Fuel Quality

- One of the primary distinctions between reference fuels and regular or premium fuels is the octane number, a crucial factor in determining fuel performance. Here's a breakdown of the key differences:

- Regular Fuel: Regular gasoline typically has an octane number of 87. This is the standard fuel available at most gas stations and is suitable for everyday use in most vehicles.
- Premium Fuel: Premium gasoline is of higher quality, featuring an octane number of 91. It offers improved engine performance and is often recommended for high-performance and luxury vehicles.
- Reference Grade Fuel: Reference grade fuel is of the highest quality, boasting an octane number of 97. This elevated octane rating ensures precise and consistent testing results in vehicle performance evaluations.

Stringent Specifications

Reference fuels are subject to strict government regulations, which outline a wide range of specifications that must be met. These specifications include:

- Cetane Number: Important for diesel fuel, as it affects ignition quality.
- Flash Point: The temperature at which the fuel can ignite.
- Viscosity: A measure of the fuel's resistance to flow.
- Sulfur Content: Controlling sulfur levels is crucial for reducing emissions.

- Water Content: Excess water can be detrimental to the engine.
- Hydrogen Purity: Ensuring the fuel's purity for accurate testing.
- Acid Number: Monitoring acidity to prevent corrosion and engine damage.

About Octane and Cetane:

Property	Octane Number	Cetane Number
Definition	A measure of a gasoline's resistance to knocking or pinging in spark-ignition engines. Higher octane numbers indicate a greater resistance to knocking.	A measure of a diesel fuel's ignition quality, indicating how easily it ignites under compression. Higher cetane numbers suggest better ignition quality.
Fuel Type	Applicable to gasoline, which is used in spark-ignition engines.	Applicable to diesel fuel, which is used in compression-ignition engines.
Number Range	Typically, octane numbers for gasoline range from 87 (regular) to 91+ (premium).	Cetane numbers for diesel fuel generally range from 40 to 55 or higher.
Effect on Engine	Higher octane numbers prevent knocking in gasoline engines, allowing for higher compression ratios and improved performance.	Higher cetane numbers result in better ignition and smoother combustion in diesel engines, reducing noise and emissions.
Performance	High-octane gasoline is often used in high-performance and sports cars to maximize engine power and efficiency.	High-cetane diesel fuel is preferred in diesel engines for better cold starts, reduced emissions, and improved fuel efficiency.
Knock Resistance	A higher octane number indicates better resistance to engine knock or detonation, which can damage the engine.	A higher cetane number signifies quicker, smoother ignition and combustion, reducing engine noise.
Engine Type	Octane numbers are relevant for spark-ignition (gasoline) engines found in most passenger vehicles.	Cetane numbers are relevant for compression-ignition (diesel) engines commonly used in trucks and some passenger cars.

SOURCE:

reference fuel: India begins producing 'reference' fuel, joins select league of nations – The Economic Times (indiatimes.com)

Q.1 Regarding the octane and cetane numbers, consider the following statements:

1. The octane number measures the ignition quality of diesel fuel.

2. A higher cetane number indicates better resistance to knocking in gasoline engines.

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

ANSWER: D

Q.2 Which of the following best describes the purpose of reference fuels in the automotive industry?

(a) Ensuring precise calibration and testing of automobiles

(b) Developing new fuel formulations

(c) Regulating fuel prices in the market

(d) Monitoring engine oil quality

ANSWER: A