

TOPICS COVERED

1. **Shamadi: The art of co-living (28 April) (GS Paper I: Society, GS Paper IV: Ethics)**
2. **Rocks with evidence of the earth's magnetic field discovered (28 April) (GS Paper I: Physical Geography)**
3. **Flying in fashion (28 April) (GS Paper III: Basic Science)**
4. **Hangor-class advanced submarines built for Pakistan (28 April) (GS Paper II: India and Its Neighbours)**
5. **Will new insurance rules help senior citizens? | Explained (28 April) (GS Paper II: Vulnerable Section of Society)**
6. **When is a candidate elected unopposed? | Explained (28 April) (GS Paper II: Electoral System)**
7. **How do extreme climate events impact Asia? (28 April) (GS Paper III: Environment, Disaster Management)**

The art of co-living (28 April) (GS Paper I: Society, GS Paper IV: Ethics)

- "Shamadi" (in Tiwa) or dormitory, is a significant social institution among tribal communities in northeast India.
- It serves as a communal living space where youth learn various life skills and receive guidance from experienced individuals.
- Skills taught in the dormitory range from traditional arts and crafts to discussions on important life decisions, such as choosing a life partner.
- Participation in the dormitory fosters a sense of community and camaraderie among the youth.
- The age range of dormitory members varies among different tribal groups.

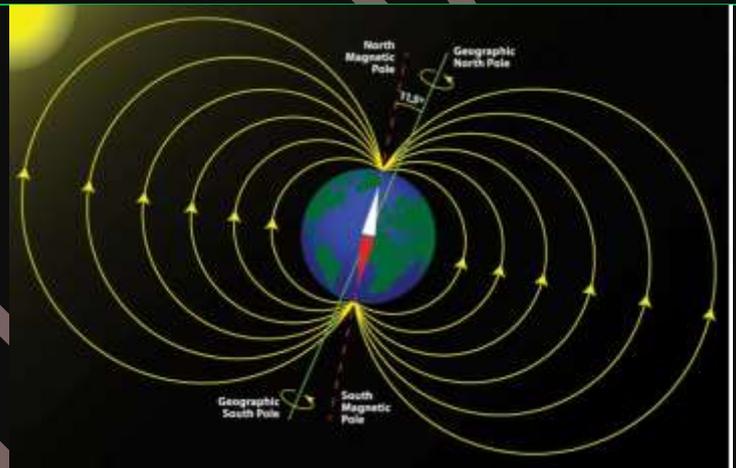
- Members of the dormitory provide assistance to those in need within the community, such as helping farmers with harvesting or assisting in house construction.
- Assistance provided by dormitory members is voluntary, and they do not expect any compensation in return.
- Despite the enduring relevance of dormitories in society and their positive impact socially, economically, and culturally, they face challenges in the modern world due to external influences, particularly from the Internet.
- Women are strictly prohibited from entering the shamadi ecosystem of hill Tiwas, indicating a gender-specific aspect of this social institution.

Rocks with evidence of the earth's magnetic field discovered (28 April) (GS Paper I: Physical Geography)

Earth's Magnetic Field

Earth's magnetic field is a region surrounding our planet. It acts like a giant protective shield, interacting with charged particles from the sun and cosmic rays

Origin: Generated by a "geodynamo". This is the motion of swirling, molten iron in Earth's outer core, acting like a massive electric generator.



Key Features

- Resembles a bar magnet slightly tilted from the Earth's rotational axis.
- **Poles:** The geomagnetic north and south poles don't match the geographic ones and change positions over time.
- **Strength:** Not uniform and varies across the surface. Measured in units called nanoteslas (nT).
- **Importance:**
 - **Solar Wind Deflection:** Prevents most harmful solar radiation from reaching the surface.
 - **Navigation:** Used by animals for migration and by humans with compasses.
 - **Aurorae:** Causes stunning polar light displays – the auroras.

Changes in the Magnetic Field

- **Wandering Poles:** Magnetic north is shifting rapidly due to changes in the core.
- **Weakening:** The overall strength of the field has been decreasing slightly in recent decades.
- **Reversals:** Historically, magnetic north and south poles have flipped entirely, though we're not currently heading towards a reversal.

- Geologists at MIT and Oxford University discovered ancient rocks in Greenland containing the oldest remnants of Earth's early magnetic field.
- The rocks are approximately 3.7 billion years old and show signs of a magnetic field with a strength of at least 15 microtesla, similar to Earth's current magnetic field.
- Published in the Journal of Geophysical Research, the study provides some of the earliest evidence of Earth having a magnetic field.
- Previous studies indicated a magnetic field on Earth at least 3.5 billion years old, but this research extends it by another 200 million years.
- Benjamin Weiss, from MIT's Department of Earth, Atmospheric, and Planetary Sciences and one of the authors, suggests that if Earth's magnetic field existed a few hundred million years earlier, it could have played a crucial role in making the planet habitable.

Magnetic shield

- Scientists suspect that Earth's ability to support life early in its evolution was aided by a strong magnetic field.
- This magnetic field likely helped retain a life-sustaining atmosphere and shielded the planet from harmful solar radiation.
- While evidence suggested the existence of Earth's magnetic field about 3.5 billion years ago, the exact strength and timing were unknown.
- Researchers aimed to find rocks that preserved signatures of Earth's early magnetic field when they first formed.
- They sampled rocks from the Isua Supracrustal Belt in southwestern Greenland, focusing on banded iron formations, which likely formed before the rise of atmospheric oxygen around 2.5 billion years ago.
- Using uranium-lead ratio, they determined that some magnetized minerals in the rocks were approximately 3.7 billion years old.
- This suggests that these rocks retained an ancient magnetic field, estimated to be at least 15 microtesla, around 3.7 billion years ago.
- Today, Earth's magnetic field measures around 30 microtesla.

Flying in fashion (28 April) (GS Paper III: Basic Science)

- Mathematicians have discovered previously unknown aerodynamic interactions that explain how birds fly in coordinated formations effortlessly.
- They found that flow-mediated interactions between neighboring birds act like spring-like forces, holding each bird in place within the formation.
- However, these "springs" only act in one direction, leading to non-reciprocal interactions where later birds tend to oscillate wildly.
- To replicate bird formations, researchers created mechanized flappers resembling bird wings, which were 3D-printed from plastic and driven by motors to flap in water.

- This "mock flock" propelled through water and could freely arrange itself in a line or queue, similar to bird formations.
- The flow of water affected group organization differently depending on the size of the group, revealing insights into how birds maintain their formations during flight.

Hangor-class advanced submarines built for Pakistan (28 April) (GS Paper II: India and Its Neighbours)

Background

- **Strategic Partnership:** The Hangor-class submarines represent a deepening military cooperation between Pakistan and China.
- **Modernization Drive:** The submarines aim to strengthen the Pakistan Navy's capabilities and address the regional security environment.



Technology Transfer: The project involves building four submarines in China and four in Pakistan (Karachi Shipyards and Engineering Works - KS&EW), facilitating the transfer of technology

Hangorclass submarine

- **Type:** Diesel-electric attack submarines
- **Based on:** The Chinese Type 039A/041 Yuan-class submarine
- **Key Features:**
 - Enhanced stealth capabilities
 - Advanced sensors and weapons systems
 - Air-independent propulsion (AIP) – for extended underwater operations
- **Purpose:** Can be used for a variety of roles, including:
 - Anti-surface and anti-submarine warfare
 - Intelligence gathering and surveillance
 - Maritime security operations

Project Timeline

- **Agreement Signed:** In 2015
- **First Launch:** The first submarine was launched in China in December 2022.
- **Expected Delivery:** All eight submarines are projected to be commissioned into the Pakistan Navy within the next few years.

Significance

- **Naval Balance:** The Hangor-class submarines are expected to significantly enhance Pakistan's naval power and potentially alter the strategic balance in the region.
- **China-Pakistan Ties:** This project reinforces the close defense relationship between Pakistan and China.
- China has initiated the construction of the first of eight Hangor-class submarines for Pakistan, a move that enhances bilateral military cooperation between the two countries.
- The launch ceremony took place at Wuchang Shipbuilding Industry Group's (WSIG) Shuangliu Base and was attended by Pakistan Navy chief Admiral Naveed Ashraf.
- This initiative is part of an agreement between Islamabad and Beijing, wherein China agreed to provide Pakistan with eight advanced submarines.
- Four submarines will be constructed by WSIG, while the remaining four will be built at KS&EW (Karachi Shipyard & Engineering Works) under a Transfer of Technology (ToT) agreement.
- The submarines will feature advanced stealth capabilities and will be equipped with state-of-the-art weapons and sensors to operate effectively in multi-threat environments and engage targets at long ranges.
- Admiral Ashraf highlighted the significance of maritime security in the current geo-strategic context and reaffirmed the Navy's commitment to ensuring regional peace and stability.
- He also emphasized that the Hangor-class S/M Project will strengthen the enduring friendship between Pakistan and China, showcasing robust military cooperation between the two nations.
- This launch ceremony follows Pakistan's commencement of manufacturing the 6th Hangor-class submarine at KS&EW in February earlier this year.

Extreme floods in Pakistan lead to heatwaves in China (28 April)

- An analysis of over 40 years of atmospheric data suggests a link between extreme heatwaves in China and floods in Pakistan.
- This connection is attributed to an upper tropospheric pathway associated with the Asian summer monsoon system.
- The pathway emerges due to internal variability within the monsoon system and operates independently of sea surface temperature patterns.
- In the summer of 2022, Pakistan faced catastrophic flooding.
- Subsequently, China experienced prolonged heatwaves and severe droughts.

Diversity can help Canadian drylands endure drought (28 April)

- A new study explores the impact of functional plant traits on dryland forest ecosystem productivity in Canada.
- The research spans 57 years of data and indicates that greater functional plant diversity enhances productivity.

- Dryland biomes with more functional plant diversity outperform monoculture counterparts, even during intensified drought.
- Functional diversity contributes to long-term ecosystem resilience.
- Canadian drylands provide an ideal environment for studying these effects due to their well-preserved forest ecosystems.

Dengue surveillance reveals (28 April)

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The many benefits of coconut (28 April)

- The coconut palm is native to the Malesia region, which includes Southeast Asia, Indonesia, Australia, New Guinea, and Pacific Island groups.
- A 2014 paper by Uma Ahuja et al. in the journal Asian Agri-History delves into the coconut palm's history, uses, and folklore through archaeological, epigraphic, and historical records.
- Coconut has been found in archaeological excavations and epigraphic inscriptions in India, featuring in scriptures of religious, agricultural, and Ayurvedic significance.
- The coconut palm is celebrated for its multitude of uses, earning it titles like the Tree of Life, Tree of Abundance, and Kalpavriksha (providing all necessities of life). It offers food, health, medicinal, and cosmetic benefits.
- In India, coconut cultivation is primarily concentrated in southern states: Kerala, Karnataka, Tamil Nadu, Telangana, and Andhra Pradesh, which provide the warm, sandy, well-drained, and nutrient-rich soil, warm and humid climate, and abundant rainfall ideal for coconut trees.
- North India's predominantly temperate climate with distinct seasons and uneven rainfall is less conducive to coconut growth. However, some northeastern states with suitable temperatures and rainfall also produce coconuts, albeit hindered by clayey soil.
- Coconut holds a significant religious and ceremonial importance in India, used in offerings to deities and in various social ceremonies, even in regions where it's not grown.
- Every part of the coconut tree is utilized, leaving no waste, showcasing its versatility and utility.
- Coconut has deeply integrated into the cultural, social, religious, and linguistic fabric of various communities due to its versatile uses.

- In South India, coconut plays a significant role in daily life, with coconut palm trees adorning temple decorations, whole nuts offered to deities, and devotees receiving coconut as 'prasadam', along with coconut water.
- Coconut water is highly valued for its freshness and health benefits, often considered as nectar.
- Traditional sweets like 'kozhukkatai' or 'modak', made from coconut meat, hold special importance, especially during religious festivals like Ganesh Chaturthi.
- Coconut oil is commonly used for oil baths and cooking in South Indian households. It is believed to have various health benefits, including aiding digestion, promoting regular bowel movement, and potentially benefiting cardiovascular health and delaying Alzheimer's disease.
- Some people use coconut oil as a substitute for butter in their daily meals, reflecting its versatility and widespread usage.
- The author, reflecting on personal experience, shares how their grandmother encouraged the use of coconut oil for health benefits, a practice they continue as a senior citizen.

Will new insurance rules help senior citizens? | Explained (28 April) (GS Paper II: Vulnerable Section of Society)

What is the change in the upper age limit to avail a new health cover? What has the Insurance Regulatory and Development Authority of India said about designing products for senior citizens? Will all types of existing medical conditions be accepted?

About the Insurance Regulatory and Development Authority of India (IRDAI)

The IRDAI is a statutory body under the jurisdiction of the Ministry of Finance, Government of India. It acts as the apex body for regulating and promoting the orderly growth of the insurance industry in India.

- **Established:** Founded in 1999 under the **Insurance Regulatory and Development Authority Act, 1999**.
- **Headquarters:** Hyderabad, Telangana.

IRDAI's Mission

- To protect the policyholders' interests.
- To regulate, promote, and ensure the orderly growth of the insurance and reinsurance business in India.

Key Roles and Responsibilities

- Issuing licenses to insurance companies.
- Protecting policyholders' interests by regulating insurance products, premium rates, and terms and conditions.
- Setting solvency standards for insurance companies.
- Promoting fair competition among insurance companies.
- Regulating insurance intermediaries and agents.
- Promoting consumer awareness about insurance products and services.
- Addressing policyholder grievances related to insurance companies.

Structure of IRDAI

The IRDAI is a ten-member body consisting of:

- A chairperson
- Five full-time members
- Four part-time members

These members are appointed by the Government of India.

- The Insurance Regulatory and Development Authority of India (IRDAI) implemented the Insurance Products Regulations, 2024, starting from April 1.
- These regulations are part of broader reforms initiated by the IRDAI **to enhance the insurance sector.**
- The new norms address different aspects of **life insurance, general insurance, and health insurance.**
- There is significant interest in these regulations, especially regarding the anticipated **alteration in the upper age limit for obtaining a new health insurance policy.**

What do the new regulations address?

- The new Insurance Products Regulations, 2024 aim to enable insurers to respond more quickly to changing market needs.
- They also seek **to improve the ease of doing business and increase insurance penetration while protecting policyholders' interests.**
- Good governance practices are encouraged among insurers in designing and pricing their products to ensure policyholder protection.
- In health insurance, the **regulations reduce the "specific waiting period" from four years to three years.**
- This means a shorter wait time for insurance coverage for specified diseases or treatments, excluding those resulting from accidents.
- After the waiting period, diseases or treatments will be covered if the policy is renewed without any breaks.
- The definition of a pre-existing disease now includes any health condition diagnosed or treated by a physician within three years before policy commencement.
- **AYUSH (Ayurveda, Yoga and Naturopathy, Unani, Siddha, and Homoeopathy systems) treatment coverage is emphasized in the new regulations.**
- **Insurers are mandated to provide coverage for AYUSH treatments on par with other treatment options.**
- The previous regulation allowed insurers to provide coverage for AYUSH treatments under certain conditions specified by the authority.
- **Insurers are advised not to deny renewal of health insurance policies based solely on past claims, except for specific benefit-based policies.**

What changes are relevant to senior citizens?

- The April 1 notification aims to expand insurance coverage, aligning with **IRDAI's goal of 'Insurance for All by 2047'.**
- Previously, the **Health Insurance Regulations, 2016**, stated that health insurance policies must allow entry up to at least 65 years of age.

- This means insurers couldn't refuse coverage to individuals up to the age of 65.
- Despite this regulation, some insurers already offered policies with entry ages up to 99 years.
- The new regulations require insurers to establish a separate channel for addressing health insurance claims and grievances of senior citizens.
- This move is intended to ensure better service and support for elderly policyholders.

How are insurance companies likely to respond to the new regulations?

- IRDAI's nudging towards expanding insurance coverage is prompting insurers to consider new products for individuals above 65 years old.
- Many insurers are adopting a wait-and-watch approach, while some may start developing new products tailored for this demographic.
- Industry officials anticipate insurers gradually resetting the maximum entry age for health insurance to 99 years.
- Previously, there was no explicit age restriction, but health insurance products had minimum and maximum entry ages.
- The earlier regulations required the maximum entry age to be at least 65 years, but this provision has been removed now.
- Insurers now have the flexibility to set their own minimum and maximum entry ages for health insurance policies.

How significant are the changes?

- **Affordability of health insurance premiums is crucial for senior citizens, especially when they need coverage the most.**
- **IRDAI does not interfere with the pricing of health insurance products** but has introduced new regulations **regarding premium payment and incentives.**
- **According to the new regulations, the premium shall remain unchanged for the policy term, and insurers may offer facilities like premium payment in instalments and incentives for early entry, continued renewals, and favorable claims experience.**
- Star Health & Allied Insurance is among the few companies that provide health insurance to individuals above 65 at the time of entry, emphasizing the importance of buying a policy early for comprehensive coverage.
- **Buying health insurance early provides comprehensive coverage and guarantees policy renewal without an increase in premium, even if ailments develop later.**
- Health insurance policies are becoming modular with varying features to accommodate customers' paying capacity, and buying health cover young reduces the waiting period.
- The changes in regulations provide insurers with flexibility to develop products for different demographic segments, with the ability to offer better features and affordability depending on factors **like disease incidence and medical inflation.**

When is a candidate elected unopposed? | Explained (28 April) (GS Paper II: Electoral System)

What are the rules under the Representation of the People Act? What happened in the Surat Lok Sabha constituency? What has the Supreme Court asked the Election Commission about a petitioner's plea seeking fresh elections in constituencies where NOTA votes are in a majority?

- On April 22, the Bharatiya Janata Party (BJP) won its first seat in the Lok Sabha election.
- The BJP candidate, Mukesh Dalal, won from the Surat constituency in Gujarat.
- His victory came as a result of the rejection of the nomination papers of Congress candidates, both the main and substitute nominees, on the previous day.
- Additionally, other nominees withdrew their candidature.
- With no opposition left, Mukesh Dalal was elected unopposed.
- As a result, the city of Surat, which is the second largest city in Gujarat, will not have elections on May 7.

How is a candidate declared elected before polling?

- Section 53(3) of the Representation of the People Act, 1951 deals with uncontested elections.
- If the number of candidates is less than the number of seats to be filled, the Returning Officer (RO) must declare all candidates as elected.
- Section 33 of the Act outlines the procedure for presenting nomination papers and requirements for valid nominations.
- Sub-section 4 of Section 33 states that the RO must verify that the details on the nomination paper match those on the electoral rolls.
- In the case of the Congress candidate for Surat, **Nilesh Kumbhani, three proposers claimed they did not sign his nomination form.**

Role of the District Election Officer (DEO)

- DEOs are crucial to conducting free, fair, and smooth elections at the district level.
- **Appointed by:** The Election Commission of India (ECI) in consultation with the respective State Government.
- DEOs are senior officers of the Indian Administrative Service (IAS) rank, usually the District Magistrate or District Collector.

Primary Responsibilities

- Overseeing all election-related activities within their district
- Ensuring accurate and up-to-date voter lists
- **Polling Stations:** Identifying, setting up, and managing polling stations
- **Electronic Voting Machines (EVMs):** Procurement, secure storage, preparation, and deployment of EVMs
- **Personnel Management:** Appointing, training, and overseeing polling staff

- **Model Code of Conduct:** Implementing & enforcing the Model Code of Conduct during elections
- **Security:** Coordinating with law enforcement agencies for security during polling
- **Coordination:** Working with various government departments, election observers, and political parties
- **Post-Election** Counting of votes and declaration of results for their district

- They did not appear before the District Election Officer (DEO) to support the candidate's nomination form.
- The **Handbook for Returning Officers (Edition 2)** issued by the Election Commission in **August 2023** mentions that in constituencies with only one contesting candidate, that candidate should be declared elected immediately after the withdrawal deadline.
- In such cases, a poll is not necessary.
- Candidates returned uncontested with criminal antecedents must publicize the details as per the prescribed format and timeline.

What is the scope for negative voting in the election system?

- The system allows for both **NOTA (none of the above)** and **Rule 49-O** options.
- **Rule 49-O** of the Conduct of Election Rules, 1961, allows electors to decide not to vote, with their decision recorded by the presiding officer in the remarks column of the Register of Voters.
- **NOTA was introduced on electronic voting machines (EVMs) in November 2013 following a Supreme Court verdict in response to a petition by the People's Union for Civil Liberties.**
- **NOTA gives voters the right to express disapproval of candidates while protecting their secrecy.**
- **NOTA votes are not considered for calculating the total valid votes polled for the return of the security deposit, as per the Handbook for Returning Officers (ROs).**
- The Election Commission (EC) maintains that the candidate with the largest number of votes, excluding **NOTA**, will still be declared the winner.
- In local bodies' polls in Maharashtra, **NOTA** is treated as a fictional candidate, and if **NOTA** receives the highest votes, the Commission holds a re-poll.

What are the developments post NOTA?

- There have been instances where **NOTA** votes exceeded the votes obtained by political parties.
- Some activists and constitutional experts criticize **NOTA** as ineffective, labeling it a "toothless tiger" because it does not impact election results.
- **NOTA garnered over 1.29 crore votes in State Assembly and Lok Sabha elections combined over the past five years.**
- On April 26, the Supreme Court responded to a plea by author Shiv Khera, asking the **Election Commission (EC)** to reply to a request for fresh elections in constituencies where **NOTA** votes were the majority.

- The petitioner suggested that candidates receiving fewer votes than NOTA should be barred from contesting elections for five years, urging the court to direct the EC to frame such rules.

Question: Describe the administrative machinery responsible for conducting elections for the Indian Parliament and State Legislative Assembly. (250 words/15 Marks)

ANSWER APPROACH:

- Introduce the laws that provides for the administrative machinery responsible for conducting elections.
- Then give brief explanation of appointment and functions of each of these officers/authority.
- Conclude accordingly.

ANSWER:

Part IV provide for delegation of functions of Election Commission i.e. the functions of the Election Commission under the Constitution, the Representation of the People Act, 1950, and Representation of the People Act, 1951 Act or under the rules made there under may be performed also by Deputy Election Commissioner or the Secretary to the Election Commission based on directions from the Election Commission.

Chief Electoral Officer

- Nominated or designated by the Election Commission in consultation with the State Government/Union Territory Administration.
- Authorized to supervise election work in the State/Union Territory under the overall superintendence of the Election Commission.

District Election Officer

- Nominated by the Election Commission in consultation with the State Government.
- Authorized to coordinate and supervise election work within the district or area of jurisdiction, subject to the direction of the Chief Electoral Officer.
- Responsible for providing polling stations, publishing lists, and other election-related tasks.

Observer

- Nominated by the Election Commission to oversee election conduct in a constituency or group of constituencies.
- Reports directly to the Election Commission.
- Empowered to direct the stopping of vote counting if booth capturing is suspected.

Returning Officer

- Nominated or designated by the Election Commission in consultation with the State Government/Union Territory Administration.
- Responsible for each assembly and parliamentary constituency.
- May appoint Assistant Returning Officers to assist in election functions.
- Performs necessary acts for conducting elections as per the Representation of the People Act, 1951.

Presiding Officer

- Appointed by the District Election Officer for each polling station.
- Responsible for maintaining order and ensuring fair polling.

Polling Officer

- Assists the Presiding Officer and performs functions as directed.
- Takes over Presiding Officer's functions in case of absence due to illness or other reasons.

Officers involved in election conduct are deemed to be on deputation to the Election Commission during the election period and are subject to its control, superintendence, and discipline.

How do extreme climate events impact Asia?

(28 April) (GS Paper III: Environment, Disaster Management)

What does the 2023 'State of the Climate in Asia' report say? What does it mean for India?

- The **World Meteorological Organization's 2023 report, 'State of the Climate in Asia'**, highlighted that Asia has experienced faster warming compared to the global average since 1960.
- 2023 was identified as the warmest year on record worldwide.
- The report emphasized an **"alarming gap" between climate projections and the capacity of Asian countries to adapt to and address climate change and its consequences.**

What toll did heat exact on Asia?

- In 2023, **more than 2,000 people lost their lives due to extreme climate events in Asia**, while over nine million individuals were affected.
- Over 80% of these events were attributed **to storms and floods.**
- The report also highlighted severe heat waves in various regions, leading to numerous fatalities.
- India experienced severe heat waves in April and June, resulting in approximately 110 deaths.
- A prolonged heat wave affected large parts of South and South-East Asia in April and May, impacting areas from Bangladesh and eastern India to southern China.

How did floods and storms affect Asia?

- **Tropical cyclone Mocha struck Myanmar and Bangladesh in May 2023.**
- It was identified as the **strongest cyclone in the Bay of Bengal in the past decade.**
- Following the cyclone, **floods, landslides, and lightning incidents occurred in India, Pakistan, and Nepal in June and July 2023.**
- Approximately 600 people lost their lives due to these events.
- In August 2023, floods and landslides in Himachal Pradesh and Uttarakhand, India, resulted in at least 25 deaths.
- **Lightning strikes caused approximately 1,200 fatalities across India throughout the year.**

How well can Asia spot a coming disaster?

- An **early-warning system** is a comprehensive process that monitors, predicts, and forecasts hazards.
- It encompasses activities related to risk assessment, communication, and preparedness.

- These systems allow individuals, communities, governments, and businesses to take timely action to mitigate risks.
- For example, authorities in Bangladesh had a day's notice to prepare for cyclone Mocha, enabling them to take anticipatory **action in Cox's Bazar** and improving survival rates among local communities.
- Twenty-one Asian countries reported the status of their early warning systems to the UN.
- According to the **UN Office for Disaster Risk Reduction**:
 - The average composite score for the availability of and access to multi-hazard early warning systems in Asia was **0.46 out of 1**.
 - Preparedness to respond scored **0.58 on average**.
 - Observation and forecasting scored **0.50 on average**.
- In comparison, the world scored **0.35, 0.78, and 0.33**, respectively, on these counts.
- Warning and dissemination emerged as the strongest area under the framework for Asia, while risk knowledge was the weakest.
- The report highlights that **fewer than half of all Asian countries have the necessary tools to mitigate** the impact of climate change.

What do these findings mean for India?

- Extreme climate events are increasing globally, including in India, but improved preparedness can minimize damage.
- **Early warnings were used effectively during cyclone Mocha**, one of the strongest cyclones in the Bay of Bengal.
- India's early preparedness for cyclones is strong but there is the need for better management of deaths and destruction caused by lightning.
- He highlighted challenges in responding to lightning strikes, particularly for marginalized communities.
- Some groups, like farmers working in fields, may not receive alerts in time due to being away from sources of information.
- There is inadequacy of India's preparedness for climate change challenges.
- Emerging threats such as **unprecedented heatwaves, glacier retreat, and rising sea levels, requiring urgent attention and policy overhaul**.
- Singh stressed the importance of empowering communities with resources and policies to effectively combat climatic adversities.

A president under fire (28 April)

- On April 17, students at Columbia University intensified their protests against the war on Gaza by occupying university lawns and creating a 'Gaza solidarity encampment'.
- Columbia University's first woman president, Nemat 'Minouche' Sha'ik, was simultaneously attending a Congressional hearing before the U.S. House Committee on Education and the Workforce.
- Sha'ik testified about the university's action plan to counter "anti-Semitic" instances on the campus during the hearing.

- She faced questions regarding whether phrases like 'from the river to the sea, Palestine will be free' or 'long live intifada' were anti-Semitic. She acknowledged that while they seemed anti-Semitic to her, others might not see them that way.
- Sha'ik highlighted the challenge of reconciling free speech rights with ensuring an environment free of discrimination and harassment for Jewish students on campus.
- Despite calls for her resignation, Sha'ik assured the committee that the university would remain a safe space for Jewish students and that policy violators would face consequences.
- The following day, Sha'ik requested the New York Police Department to enter the campus and arrest the peacefully protesting students in the encampment.
- Over 100 students were subsequently arrested by the NYPD.

The Baroness

- Nemat 'Minouche' Sha'ik was born in Alexandria, Egypt, and moved to the U.S. with her family at the age of four in the mid-1960s.
- She earned her master's degree from the London School of Economics and Political Science (LSE) and her DPhil from Oxford University.
- At the age of 36, Sha'ik became the youngest Vice President of the World Bank, focusing on global development and foreign aid programs.
- She later worked with the International Monetary Fund (IMF) and the Department for International Development of the U.K.
- In 2014, Sha'ik joined the Bank of England as its first Deputy Governor on Markets and Banking, where she worked on contingency planning around the Brexit referendum.
- She is a member of the U.K. House of Lords with the title of 'The Baroness Sha'ik DBE'.
- Sha'ik served as the president of LSE in 2017, facing challenges during her tenure including strikes by university staff represented by the University and College Union (UCU) protesting pension cuts, pay decline, and insecure contracts.
- University administrators, including Sha'ik, faced criticism for not doing more to support striking faculty.
- Sha'ik's salary in 2019-20 was £507,000, while some staff members experienced exploitation and inequality.
- In her 2021 book, "What We Owe Each Other: A New Social Contract," Sha'ik discusses the need for a new social contract to address societal tensions and inequalities.
- As tensions rise across campuses in the U.S., there are suggestions that Sha'ik should reflect on her own position within society and take her own advice.

Breaking the glass ceiling

- Professor Naima Khatoon has been appointed as the first woman Vice-Chancellor of Aligarh Muslim University (AMU) by President Droupadi Murmu.
- Before her appointment, Khatoon served as the principal of AMU Women's College.
- Khatoon is described as a level-headed team player who delegates responsibility and is seen as progressive, committed to upholding the secular character of the university.

- Her appointment was not surprising to those following the selection process, as there was a demand for a woman VC at AMU, especially after Naima Akhtar became the VC of Jamia Millia Islamia.
- The move is perceived as part of the BJP government's outreach to Muslim women, with Khatoon's appointment coinciding with PM Narendra Modi's election rally in Aligarh.
- Khatoon took charge from her spouse, Professor Mohammad Gulrez, who was officiating as the Vice-Chancellor after the retirement of regular appointee Tariq Mansoor in April 2023.
- Despite AMU having notable alumnae who went on to lead prestigious universities, it took over 100 years for a deserving woman to be proposed for the VC post, possibly due to customs and the residential nature of AMU.
- The concept of a woman VC is relatively new, reflecting challenges of patriarchy in academia.
- Khatoon, originally from Odisha, joined AMU in 1977 and completed her PhD in psychology there. She served as a lecturer and was later promoted to professor before becoming the principal of the Women's College in 2014.

'A born leader'

- Munira T., who has worked closely with Ms. Khatoon, describes her as a team player with a background in psychology, enabling her to solve administrative problems sensitively.
- Khatoon, known as a born leader, was a student union leader during her college days and has held various administrative positions.
- Stakeholders are hopeful that Khatoon will address issues of adhocism and remove unauthorized elements from residential hostels.
- Expectations include restoring democratic institutions like the students' union.
- Khatoon faces a legal challenge as her candidacy for the VC post was challenged in the Allahabad High Court due to her spouse, Mr. Gulrez, heading the committee that shortlisted her name.
- Mr. Gulrez maintains that university rules were followed and asserts that both he and Khatoon should be seen as independent entities.
- The Aligarh Muslim Teachers' Association (AMUTA), previously critical of the selection process, has now acknowledged Khatoon's appointment and expressed hope that she will be fair, transparent, and impartial.

India set to sign trade deal with Oman to expand its West Asia ties (28 April)

- India and Oman are set to sign a trade deal soon, according to two Indian government officials.
- This move is part of India's efforts to strengthen its relations in West Asia amid escalating tensions that pose risks to major shipping routes.
- One official stated that the trade deal will benefit India by providing strategic partnership and access to important trade routes in a volatile region.

- Currently, the annual trade between India and Oman is less than \$13 billion.
- Oman holds significance for India as it serves as a gateway to the Strait of Hormuz, a crucial transit point for global oil shipments.
- Recent conflicts involving Israel, Hamas in Gaza, and Yemen's Houthi militants have heightened tensions in the region.
- The trade deal awaits approval from the Indian government, with the results of the ongoing national elections expected to be announced on June 4.
- Prime Minister Narendra Modi is anticipated to secure a rare third term, as per unnamed officials.
- Discussions regarding the trade deal between India and Oman are kept private, hence the officials requested anonymity.
- Attempts to establish a deal with the Gulf Cooperation Council (GCC) have stalled, leading India to pursue bilateral agreements with GCC member countries like Oman and the United Arab Emirates.
- The proposed trade agreement with Oman is seen as advantageous for India, particularly as the GCC engages in trade negotiations with Pakistan and China.
- Oman has agreed to waive duties on Indian exports valued at \$3 billion annually, encompassing various sectors such as agriculture, gems and jewelry, automotive, medical devices, engineering products, and textiles.
- In return, India has agreed to reduce tariffs on certain petrochemicals, aluminum, and copper from Oman while imposing limits on imports of these goods.

India, Chinese Taipei ask WTO body to delay ruling on ICT levy (28 April)

- India and Chinese Taipei have jointly requested the WTO's dispute settlement body (DSB) to withhold any ruling against India's import duties on specific information and technology products until July 26.
- This request was made during a DSB meeting held in Geneva on April 26, aiming to allow more time for resolving the disputes related to the import duties.
- The DSB, based in Geneva, agreed to honor this request, extending the consideration of the dispute panel's reports until July 26, 2024.
- This is the fourth time such a request has been made by India and Chinese Taipei, and the DSB has accommodated their requests on previous occasions as well.
- According to WTO rules, once a dispute panel releases its ruling, the DSB typically adopts it for implementation within 60 days. However, countries involved in the dispute can mutually request the DSB to delay the adoption of the ruling.
- The dispute panel's report, released on April 17, 2023, stated that India's import duties on certain information and technology products are in violation of global trading norms.

<p>Question 1: Which of the following phenomena provides evidence of the Earth's magnetic field?</p> <ul style="list-style-type: none"> a) Migration of birds and sea turtles b) Formation of rainbows c) Occurrence of volcanic eruptions d) Changing intensity of solar radiation 	<p>Answer: a) Migration of birds and sea turtles Explanation: Many migratory animals are believed to use the Earth's magnetic field as a navigational aid during their long journeys.</p>
<p>Question 2: The Earth's magnetic field is generated primarily by:</p> <ul style="list-style-type: none"> a) The gravitational pull of the Sun and the Moon b) Convection currents in the molten outer core c) Radioactive decay in the Earth's crust d) Chemical reactions in the atmosphere 	<p>Answer: b) Convection currents in the molten outer core Explanation: The churning motion of liquid iron in the Earth's outer core acts like a giant dynamo, creating electric currents that generate the magnetic field.</p>
<p>Question 3: The Earth's magnetic poles have shown a tendency to:</p> <ul style="list-style-type: none"> a) Remain fixed in their position throughout geological time b) Gradually move and occasionally reverse polarity c) Align themselves perfectly with the geographic poles d) Weaken significantly over a short period 	<p>Answer: b) Gradually move and occasionally reverse polarity Explanation: Studies of paleomagnetism (the study of ancient magnetic fields recorded in rocks) reveal that the Earth's magnetic poles wander over time and have even flipped completely in the past.</p>
<p>Question 4: Consider the following statements:</p> <ol style="list-style-type: none"> 1. The Earth's magnetic field shields the planet from harmful solar radiation. 2. Auroras (Northern and Southern Lights) are caused by interactions between the magnetic field and solar wind. <p>Which of the above statements is/are correct?</p> <ul style="list-style-type: none"> a) 1 only b) 2 only c) Both 1 and 2 d) Neither 1 nor 2 	<p>Answer: c) Both 1 and 2 Explanation: The magnetic field acts as a protective shield, deflecting most charged particles from the solar wind. When some particles do interact with the field, it creates the mesmerizing light displays of the auroras.</p>
<p>Question 5: Birds flying in formation often adopt a V-shaped pattern to:</p> <ul style="list-style-type: none"> a) Improve aerodynamic efficiency and reduce drag b) Enhance communication between members of the flock c) Deter predators by appearing larger and more intimidating d) Maintain consistent spacing between individuals 	<p>Answer: a) Improve aerodynamic efficiency and reduce drag Explanation: The V-formation allows birds to exploit the upwash created by the bird in front, reducing their energy expenditure and enabling longer flights.</p>
<p>Question 6: Which of the following phenomena plays a crucial role in the coordinated flight of bird flocks?</p> <ul style="list-style-type: none"> a) Vortex shedding b) Echolocation c) Coriolis effect d) Photosynthesis 	<p>Answer: a) Vortex shedding Explanation: Each bird's wings create swirling air currents called vortices. The birds behind position themselves to take advantage of the uplift from these vortices, aiding in their flight.</p>

<p>Question 7: Recent studies suggest that a key mechanism in birds' coordinated flocking behavior is:</p> <p>a) Each bird focuses solely on the leader of the flock.</p> <p>b) Birds visually track a few neighbors and adjust their flight accordingly.</p> <p>c) Birds use auditory cues to maintain synchronization.</p> <p>d) A complex central nervous system controlling the entire flock.</p>	<p>Answer: b) Birds visually track a few neighbors and adjust their flight accordingly.</p> <p>Explanation: Research indicates that birds in flocks don't have a hierarchical leader-follower structure. Instead, they maintain coordination by paying attention to a small number of nearby individuals and adjusting their position relative to them.</p>
<p>Question 8: Consider the following:</p> <ol style="list-style-type: none"> 1. Aerodynamics 2. Social interaction 3. Visual cues <p>Which of the above factors are essential for understanding the coordinated flight of birds?</p> <p>a) 1 and 2 only</p> <p>b) 2 and 3 only</p> <p>c) 1 and 3 only</p> <p>d) 1, 2, and 3</p>	<p>Answer: d) 1, 2, and 3</p> <p>Explanation: Coordinated bird flight is a complex phenomenon. Aerodynamics helps explain energy efficiency, social interactions govern flock behavior, and visual cues are crucial for maintaining alignment.</p>
<p>Question 9: The Hangor-class submarines being built for Pakistan are primarily based on which of the following platforms?</p> <p>a) French Agosta-class submarine</p> <p>b) German Type 214 submarine</p> <p>c) Chinese Type 039A/041 Yuan-class submarine</p> <p>d) Russian Kilo-class submarine</p>	<p>Answer: c) Chinese Type 039A/041 Yuan-class submarine</p> <p>Explanation: The Hangor-class is an export variant of the Chinese Type 039A/041, modified to meet Pakistan's specific requirements.</p>
<p>Question 10: Which of the following features significantly enhances the combat potential of the Hangor-class submarines?</p> <p>a) Nuclear propulsion system</p> <p>b) Air-independent propulsion (AIP) technology</p> <p>c) Vertical launch system (VLS) for missiles</p> <p>d) Advanced acoustic quieting measures</p>	<p>Answer: b) Air-independent propulsion (AIP) technology</p> <p>Explanation: AIP allows diesel-electric submarines to operate underwater for extended durations without surfacing, greatly increasing their stealth and operational range.</p>
<p>Question 11: Consider the following statements about the Hangor-class submarine project:</p> <ol style="list-style-type: none"> 1. It involves the construction of submarines in both China and Pakistan. 2. It is an example of Pakistan's efforts to modernize its naval capabilities. <p>Which of the above statements is/are correct?</p> <p>a) 1 only</p> <p>b) 2 only</p> <p>c) Both 1 and 2</p> <p>d) Neither 1 nor 2</p>	<p>Answer: c) Both 1 and 2</p> <p>Explanation: The Hangor-class program involves technology transfer and construction in both countries, demonstrating a significant investment by Pakistan in its naval forces.</p>
<p>Question 12: Consider the following context(s):</p> <ol style="list-style-type: none"> 1) Growing strategic ties with China 	<p>Answer: d) All of the above</p>

<p>2) Maritime security concerns in the Indian Ocean region 3) Efforts to counterbalance India's naval power</p> <p>The development and acquisition of Hangor-class submarines by Pakistan can be linked to how many of the above contexts?</p> <p>a) One Only b) Two only c) All the three d) None</p>	<p>Explanation: The project reflects Pakistan's multifaceted strategic calculus, including strengthening its relationship with China, addressing regional security dynamics, and seeking a more favorable balance of power with India.</p>
<p>Question 13: Under Section 53(3) of the Representation of the People Act, 1951, if there is only one candidate nominated for a seat then:</p> <p>a) The returning officer must still conduct a formal election process. b) The candidate can be declared elected without conducting a poll. c) The Election Commission can appoint another candidate. d) The seat remains vacant until a by-election is held.</p>	<p>Answer: b) The candidate can be declared elected without conducting a poll. Explanation: Section 53(3) allows for uncontested elections where the single nominated candidate is declared elected without the need for a formal voting process</p>
<p>Question 14: Which of the following situations triggers the provisions of Section 53(3) of the Representation of the People Act, 1951?</p> <p>a) When a low voter turnout results in no candidate receiving a majority. b) When a winning candidate is disqualified after an election. c) When the only candidate for a seat withdraws his nomination before the poll. d) When multiple candidates withdraw their nominations leaving only one candidate.</p>	<p>Answer: d) When multiple candidates withdraw their nominations leaving only one candidate. Explanation: Section 53(3) specifically addresses the scenario where remaining candidates are fewer than the seats to be filled, leading to uncontested elections.</p>
<p>Question 15: Consider the following statements:</p> <p>1. Section 53(3) aims to save time and resources in instances where the outcome is predetermined. 2. Uncontested elections under this provision always indicate a lack of democratic competition.</p> <p>Which of the above statements is/are correct?</p> <p>a) 1 only b) 2 only c) Both 1 and 2 d) Neither 1 nor 2</p>	<p>Answer: a) 1 only Explanation: The primary goal of Section 53(3) is procedural efficiency. While there might be cases where an uncontested election reflects a lack of competition, other scenarios (like numerous withdrawals) may not.</p>
<p>Question 16: What does Section 33 of the Act primarily address?</p> <p>a) Procedure for conducting elections b) Procedure for presenting nomination papers</p>	<p>Answer: (b) Procedure for presenting nomination papers Explanation:</p>

<p>c) Procedure for counting votes d) Procedure for filing complaints</p>	<p>Section 33 of the Act deals specifically with the procedure for presenting nomination papers and outlines the requirements for valid nominations during elections. This section is crucial in ensuring that candidates follow the correct process when submitting their nomination papers for electoral contests.</p>
<p>Question 17: Who assumes the role of District Election Officer (DEO) during elections? a) District Magistrate b) Chief Secretary of the State c) A retired High Court Judge d) A senior diplomat appointed by the Home Ministry.</p>	<p>Answer: a) District Magistrate Explanation: The District Magistrate (or District Collector) typically takes on the additional responsibilities of the District Election Officer for conducting free and fair elections in their district.</p>
<p>Question 18: Which of the following is NOT a primary function of a District Election Officer (DEO)? a) Preparation and revision of electoral rolls b) Appointing polling personnel and setting up polling stations c) Declaration of election results d) Enforcement of the Model Code of Conduct</p>	<p>Answer: c) Declaration of election results Explanation: The DEO plays a crucial role in election administration but the declaration of results is handled by the Returning Officer of a specific constituency.</p>
<p>Question 19: The District Election Officer (DEO) works in close coordination with which of these bodies? a) NITI Aayog b) Election Commission of India c) Supreme Court of India d) Ministry of Home Affairs</p>	<p>Answer: b) Election Commission of India Explanation: The DEO is the district-level representative of the Election Commission of India, which is the constitutional body responsible for overseeing elections in the country.</p>
<p>Question 20: Consider the following statements: 1. The District Election Officer is responsible for ensuring accessible voting facilities for persons with disabilities. 2. The DEO can requisition government buildings for election-related purposes. Which of the above statements is/are correct? a) 1 only b) 2 only c) Both 1 and 2 d) Neither 1 nor 2</p>	<p>Answer: c) Both 1 and 2 Explanation: Both statements accurately reflect the powers and responsibilities of a District Election Officer.</p>