



UPSC PATHSHALA

Essence

December 2022

TARGET UPSC CSE

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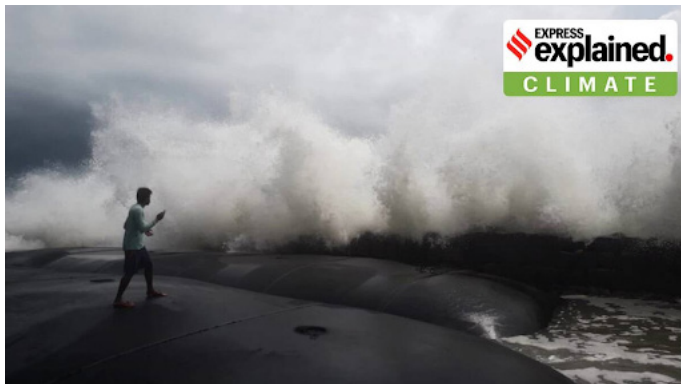
Cyclone Mandous

Theme: Important Geophysical Phenomena such as earthquake

Source: Indian Express

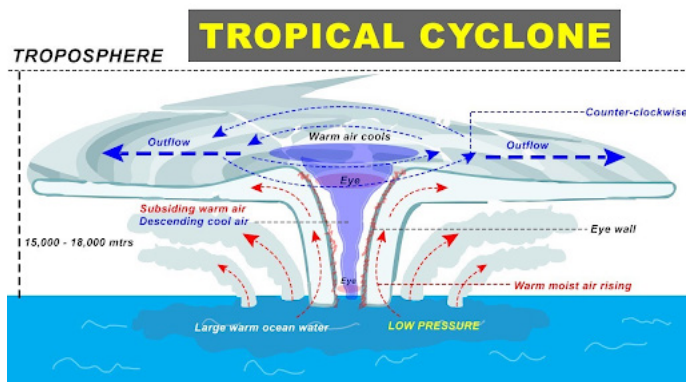
Why in news?

Tamil Nadu and neighbouring areas lashes rainfall as cyclone Mandous makes landfall.



What is a cyclone?

- A cyclone is a low pressure system that forms over warm waters.
- It is a system of high speed winds rotating around a low-pressure area.
- A characteristic feature of tropical cyclones is the eye, a central region of clear skies, warm temperatures, and low atmospheric pressure.
- The winds blow counterclockwise in the Northern Hemisphere and clockwise in the Southern Hemisphere.



What is the impact of Cyclones?

- Tropical cyclones are one of the biggest threats to life and property even in the formative stages of their development.
- They include a number of different hazards that can individually cause significant impacts on life and property, such as storm surge, flooding, extreme winds, tornadoes and lightning.
- Combined, these hazards interact with one another and substantially increase the potential for loss of life and material damage.

Which ocean in India sees more storms?

- The months of October-November and May-June see storms of severe intensity develop in the North Indian Ocean — comprising the Bay of Bengal and the Arabian Sea — with an **average of five developing in a calendar year**.
- According to the IMD, of these five storms, four are in the Bay of Bengal and one in Arabian Sea.

Why do more cyclones hit the Bay of Bengal/Eastercn Coast of India?

- The most important factors responsible for the formation of cyclones are high temperature of the sea surface and humidity.
- **Water Temperature:** Bay of Bengal witnesses an average temperature of 28 degree Celsius. This may be due to various features such as underwater volcanic activities, that maintains a constant and desirable water temperature of about 24-27 degree celsius.
- **Geographical Features:** Being surrounded by land in three directions, the overall surface temperature is much higher than the Arabian Sea which has a much longer stretch of water to its west and south.
- **Tropical depression** is a predominant occurrence in the Indo-Gangetic plains and this natural phenomenon is highly responsible for the cyclone formation in the Bay of Bengal. Warm air and the fresh water pouring into the bay from the rivers in the region increase the surface temperature of the sea further resulting in tropical depression.
- **Occurrence of ITCZ:** The Inter-Tropical Convergence Zone is formed over the Bay of Bengal region during the withdrawal of monsoon from the Indian subcontinent, which becomes a perfect spot for converging winds and thus creates cyclonic region.
- **Lack of landmass** in the Bay of Bengal basin means that the cyclones occurring in the region do not weaken and easily move towards the eastern coastline.

About Cyclone Mandous:

- The name – Cyclone Mandous– has been given by the United Arab Emirates (UAE).
- It means “treasure box” in Arabic and is often a slow-moving cyclone that entraps a lot of moisture and causes heavy rainfall.

How are cyclones named?

- WMO maintains rotating lists of names which are appropriate for each Tropical Cyclone basin.
- Cyclones that form in every ocean basin across the world are named by:
 1. Regional Specialised Meteorological Centres (RSMCs)
 2. Tropical Cyclone Warning Centres (TCWCs).
- There are six RSMCs in the world, including the India Meteorological Department (IMD), and five TCWCs.
- IMD, being an RSMC, names the cyclones developing over the north Indian Ocean, including the Bay of Bengal and Arabian Sea, after following a standard procedure.
- The IMD is also mandated to issue advisories to 12 other countries in the region on the development of cyclones and storms.
- **Atlantic and Southern hemisphere (Indian Ocean and South Pacific):** tropical cyclones receive names in alphabetical order, and women and men's names are alternated.
- **Northern Indian ocean** began using a new system for naming tropical cyclones in 2000; the names are listed alphabetically country-wise and are neutral gender-wise.

What are the benefits of naming a cyclone?

- Helps the scientific community, disaster managers, media and general masses to identify each individual cyclone.
- Create awareness of its development.
- Avoid confusion in case of simultaneous occurrence of tropical cyclones over a region.
- Rapidly and effectively disseminate warnings to a much wider audience.

Cyclones that Hit Indian coast in 2022:

- **Asani** - East Coast
- **Sitrang** - East Coast

Practice Mains Questions:

Discuss the reasons for the prevalence of a higher number of cyclones in the Bay of Bengal region as compared to the Arabian Sea Coast. (10 marks)

Static Topics to be referred:

Classification of Cyclones, Disaster Management

World Bank's toolkit - Gender responsive urban mobility and public spaces programme

Theme: Urban Mobility and Indian Women

Source: The Indian Express

Why in news?

The World Bank has launched a **"Toolkit on Enabling Gender Responsive Urban Mobility and Public Spaces in India"** on making public transport better for Indian women.



What are the Key findings of the World Bank's Report?

1. Biggest users of Public Transport:

- Women are amongst the biggest users of public transport across Indian cities.
- Buses and walking are amongst the most used modes of public transport by women.
- Women are more dependent on public transport than men, especially when they are from lower income groups

2. Mobility patterns:

- Women have unique mobility patterns, often travelling shorter distances, using multiple modes of transport, and travelling with dependents, during "off-peak hours" due to lack of safety.

3. Design of Urban mobility systems:

- The design of urban mobility systems does not consider the differential needs of women and other genders.

4. Lack of safe public transport:

- The threat or experience of sexual harassment deters women from using the public transport and commuting for long distance.

5. Barriers to mobility restrict women's choices:

- India's female labor force participation rate (FLFPR) declined steadily over the last five decades, from 47.1% in 1987-88 to 30% in 2019-20, making it one of the lowest globally.
- The lack of safe, inexpensive and reliable public transport has a profound impact on women's ability to access education and employment opportunities.

6. Gender-based social norms:

- Deep rooted gender-based social norms actively restrict women's movement outside their homes.

What is the Aim of the World Bank's Toolkit:

- It suggests ways to make public transport in Indian cities more inclusive of women's travelling requirements.
- It emphasises on the importance of integrating a gender lens in transport policies and infrastructure.

What is the need of the World bank's toolkit?

1. Importance of Cities:

- Indian cities could contribute up to 70% of India's GDP by 2030.
- Cities are engines of growth, job creation, and innovations

2. Exclusion:

- Globally, lack of consideration for diverse population needs in urban planning and design has constrained women's access to socioeconomic opportunities.

3. Knowledge Gap:

- It is intended to bridge the knowledge gaps between policy making and program implementation for gender-responsive urban mobility and public space in India.

4. Equitable Growth:

- Indian cities need gender-responsive urban mobility and public spaces so that benefits of city-led economic growth can be more equitably distributed.

What does the World Bank toolkit suggest?

The World Bank suggests a four-pillared approach to help address prevailing issues in urban transport for women.

1. Assess the ground Situation:

- Efforts should be made to understand the on-ground situation with a gender lens on differences in mobility patterns, safety concerns, gaps in current policies, legal frameworks.

2. Strengthen Planning and policies

- The policies and development plans must reflect the concerns of women.
- Integrate more women in key institutions in charge of decision making to address the concerns.

3. Build capacity and raise awareness

- It emphasises on building gender sensitivity and awareness among service providers through mandatory programmes and community action.

4. Improve infrastructure and services

- The investment has to be made in better infrastructure and services with a focus on women-friendly design.

Practice Mains Questions:

Critically analyse the inclusiveness of Urban mobility in India and suggest some measures for gender-responsive urban mobility?

PRASAD Scheme

Theme: Indian Heritage sites; Schemes

Source: The Hindu

Why in news?

President of India Droupadi Murmu inaugurated 'PRASAD' project at the tourism facilitation centre in the pilgrim town of Srisailem in Andhra Pradesh.



What is the PRASAD project?

- The 'National Mission on Pilgrimage Rejuvenation and Spiritual Heritage Augmentation Drive' (PRASHAD) is a Central Sector Scheme with complete financial assistance by the Government of India.
- The scheme was launched by the Ministry of Tourism in the year 2014-15.
- The name of the scheme was changed from PRASAD to "National Mission on Pilgrimage Rejuvenation and Spiritual Heritage Augmentation Drive (PRASHAD)" in October 2017.

Aim:

- The scheme aims at infrastructure development to envisage world class infrastructural development of the sites
- It has special emphasis on Tourist Facilities including Tourist Facilitation Centres, way-side amenities Parking, Public convenience, Illumination and Sound and Light Shows.

Objectives:

- Rejuvenation and spiritual augmentation of important national/global pilgrimage destinations;
- Enhance tourism attractiveness of identified pilgrimage destinations and heritage cities.
- Position pilgrimage and heritage tourism as a major engine for its direct and multiplier effects of economic growth and employment generation.
- Follow community-based development through 'Pro-Poor' tourism concept and 'responsible tourism' initiatives.
- Strengthen the mechanism for bridging the infrastructural gaps at identified pilgrimage destinations and throughout heritage cities.
- Creating awareness among the local communities about the importance of tourism for them in terms of increase in sources of income, improved living standards and overall development of the area.

Implementation Agency:

- The projects identified under this scheme shall be implemented through the identified agencies by the respective State/ Union Territory Government.

What is the significance of the PRASAD schemes?

- India is blessed with rich and diverse natural, historic, cultural and spiritual resources.
- Millions of tourists from the domestic and international places come to India to experience its spiritual prowess and Indian heritage.
- The growth of domestic tourism in India largely depends on pilgrimage and heritage tourism.
- It provides opportunities to undertake infrastructure developments at the important pilgrimage and heritage destinations/cities in an inclusive, integrated and sustainable manner.
- It focuses on improving various aspects such as focuses on livelihoods, skills, cleanliness, security, accessibility and service delivery.
- The involvement of local communities improves the involvement of local communities through employment generation and their standard of living prospects.
- It promotes responsible behaviour among the people in the areas of conservation of heritage sites.
- It led to development of heritage city, local arts, culture, handicrafts, cuisine, etc., which generate livelihood in the identified places

Practice Mains Questions:

What is the PRASAD Project? Discuss the economic potential of religious tourism in India.

Static Topics to be referred:

PRASAD Scheme; Important Heritage sites

Personality Rights

Theme: Polity and Governance

Source: The Hindu

Why in news?

The Delhi High Court recently passed an interim order to prevent the unlawful use of Bollywood star Amitabh Bachchan's name, image and voice.

What are personality rights?

- Personality rights refer to the right of a person to protect his/her personality under the right to privacy or property.
- These rights are important to celebrities as their names, photographs or even voices can easily be misused in various advertisements by different companies to boost their sales.
- A large list of unique personal attributes contribute to the making of a celebrity.
- All of these attributes need to be protected, such as name, nickname, stage name, picture, likeness, image and any identifiable personal property, such as a distinctive race car.

Are personality rights different from publicity rights?

Personality rights are different from publicity rights.

- Personality rights consist of two types of rights:
 - Firstly, the right of publicity, or the right to keep one's image and likeness from being commercially exploited without permission or contractual compensation, which is similar (but not identical) to the use of a trademark;
 - Secondly, the right to privacy or the right to not have one's personality represented publicly without permission.
- Publicity rights fall into the realm of the 'tort of passing off'.
- Passing off takes place when someone intentionally or unintentionally passes off their goods or services as those belonging to another party.
- This type of misrepresentation damages the goodwill of a person or business, resulting in financial or reputational damage.
- Publicity rights are governed by statutes like the **Trade marks Act 1999 and the Copyright Act 1957**.

Does the use of names on the internet affect personality rights?

- The Delhi High Court in the case of **Arun Jaitley vs Network Solution Private Limited Ors.** stated that the name due its peculiar nature/distinctive character coupled with gained popularity has become a well-known personal name/mark under the trade mark law.
- One can refrain others from using the name unjustifiably in addition to the personal rights to sue them for the misuse of one's names.

What about consumer rights?

- The celebrities are protected from commercial misuse of their name and personality.
- There have also been instances where the consumers are misled owing to false advertisements or endorsements by such personalities.
- The Ministry of Consumer Affairs has made a notification in 2022 to keep a check on misleading adverts and endorsements of consumer products by imposing a penalty on the endorser.

What are the Legal or constitutional recognitions?

Justice K. S. Puttaswamy (Retd.) v. Union of India 20178

Judgement:

- The personality rights were elevated to the position of constitutional rights.
- It recognised the right to privacy as a fundamental right derived from the right to life and personal liberty, as provided by Article 21 of the Indian Constitution.
- The court ruled that an individual may be permitted to prevent others from using his/her image, name and other aspects of his/her personal life and identity for commercial purposes without his/her consent.

Shivaji Rao Gaikwad (aka Rajinikanth) v. Varsha Production:

- Though there is no definition for the personality right under any statute in India, the Courts in India have recognized the personality right in various judgments.

Practice Mains Questions:

What are the Personal and publicity rights? Discuss the need to protect those rights on the lines of right to privacy?

Static Topics to be referred:

Personality Rights; Publicity Rights; Consumer rights;

G-20 Presidency

Theme: Bilateral, Regional and Global Groupings

Source: PIB

Why in news?

India commences its G20 Presidency on December 1st, 2022.



About:

- India will assume the G20 Presidency from December 1, 2022 till November 30, 2023.
- It will host 200 meetings of the forum across the country during this period. At least one meeting will be held in every state capital.

Theme of India's G20 Presidency:

- "One Earth, One Family, One Future"

Logo:

- Earth juxtaposed with the lotus
- The logo bears a lotus and the message of 'Vasudhaiva Kutumbakam — One Earth, One Family, One Future'.
- The logo reflects our idea of Vasudhaiva Kutumbakam (the whole earth is a family).
- The lotus flower symbolises our Puranic heritage, our aastha (belief) and boddhikta (intellectualism).

Guest countries during India's presidency:

- Bangladesh, Egypt, Mauritius, Netherlands, Nigeria, Oman, Singapore, Spain and the UAE will be the guest countries at the

event.

G20 logo illuminates 100 monuments:

- 100 monuments across the country will be illuminated with the G20 logo and its colours for seven days as India takes over the presidency of the grouping.

Troika of G20

- During India's Presidency, India, Indonesia and Brazil would form the troika.
- It is the first time when the troika would consist of three developing countries and emerging economies.
- The bloc does not have a permanent secretariat and the presidency is supported by the Troika – previous, current and incoming President.

What will be India's G20 priorities?

- Inclusive, equitable and sustainable growth
- LiFE (Lifestyle for Environment)
- Women's Empowerment
- Digital Public Infrastructure
- Culture and Tourism
- Climate financing
- Circular Economy
- Global Food Security
- Energy Security

What is the G20?

- The G20 (or Group of Twenty) is an international forum for the governments and central bank governors from 19 countries and the European Union (EU).
- The G20 was formed in 1999 in the backdrop of the financial crisis of the late 1990s that hit East Asia and Southeast Asia in particular.

Full membership of the G20:

- Argentina, Australia, Brazil, Canada, China, France, Germany, India, Indonesia, Italy, Japan, Mexico, Russia, Saudi Arabia, South Africa, South Korea, Turkey, the United Kingdom, the United States and the European Union.

Presidency:

- The group has no permanent staff of its own, so every year in December, a G20 country from a rotating region takes on the presidency.

Mandate:

- The G20 has no permanent secretariat. The agenda and work are coordinated by representatives of the G20 countries, known as 'Sherpas', who work together with the finance ministers and governors of the central banks.
- The primary mandate of the grouping is for International Economic cooperation with particular emphasis to prevent future financial crises across the world.
- It plays a significant role in shaping the global economic agenda.

What are the opportunities for India?

- **Set common ground:** India can create a common ground for setting its G20 agenda by addressing problems of global significance
- **Economic recovery:** Creating a road map for a swift global economic recovery, concentrating on the mechanism for supply chain resilience, and emphasizing the influence of green and digital economic transformation.

- **Advocate for regional and national challenges:** It must advocate its own goals for national and regional challenges like terrorism, COVID-19 vaccinations, trade and investment, unemployment, economic recovery, and patent waivers for diagnostic and therapeutic products.
- **Strengthen ties with many G20 nations:** India might strengthen ties with many G20 nations like the European Union, the United Kingdom, and Canada to hasten the process of implementing free trade agreements.
- **Emerging and least developed nations:** Giving equal space to the emerging and least developed nations with the powerful economies.
- **Equitable representation at the G20:** India should invite and work with nations from Africa and South America.

What are the challenges for India as G20 Presidency?

G20 credibility:

- The credibility of G20 has taken a hit due to internal rift, it has to be resolved with innovative solutions and build bridges.
- **Agenda:** India has to come out on an agenda that has the unanimity of all the members. India has to give thrust to inclusiveness and unity.
- **Global Conditions:** India is taking up the President when the global economy is in doldrums and there is financial instability across the world. It has to be dealt with through cooperation with International Organisations like the IMF etc.
- **SCO and QUAD:** Being a member of the SCO and the Quad, which are rather on opposite ends of the geo-political spectrum. India needs to address issues that aid in bridging the growing gap in the global order.
- **Other challenges:** It includes taking measures to ensure global food Security and a clear-cut G20 policy on the Russia-Ukraine war

Practice Mains Questions:

India to take center stage in establishing the global agenda as G20 Presidency. Discuss

Static Topics to be referred:

G-20

National Commission for Backward Classes

Theme: Constitution Bodies

Source: PIB

Why in news?

Shri.Hansraj Gangaram Ahir assumed charge as Chairperson, National Commission for Backward Classes



About National Commission for Backward Classes

- The National Commission for the Backward Classes of India is a Constitutional Body under Article 338B of the Indian Constitution.
- It has the authority to examine complaints and welfare measures regarding socially and educationally backward classes.

What is the background of NCBC?

- In the 1950s and 1970s, two Backward Class Commissions were established, one under Kaka Kalelkar and the other under B.P.Mandal.
- The Kaka Kalelkar commission is also known as the First Backward Classes Commission.

Indra Sawhney case of 1992:

- The Supreme Court had directed the government to create a permanent body to entertain, examine and recommend the inclusion and exclusion of various Backward Classes for the purpose of benefits and protection.
- National Commission for Backward Classes Act, 1993:
- It established the NCBC under the Ministry of Social Justice and Empowerment.

123rd constitution amendment bill:

- It was introduced in Parliament in 2017 and provided constitutional status to NCBC.

What are the constitutional provisions with regard to NBFC?

- Article 340 of the constitution:
- To identify socially and educationally backward classes, understand the conditions of their backwardness, and make recommendations to alleviate the difficulties.

102nd Constitution Amendment Act 2018:

- It inserted new Articles 338 B and 342 A.

Article 338 B:

- It empowers NCBC to examine complaints and welfare measures regarding socially and educationally backward classes.

Article 342 A:

- It empowers the President to specify/assign socially and educationally backward classes in different states and union territories.
- The President can do so in consultation with the Governor of the concerned State.
- But a parliamentary law is required for amending (inclusion/removal) the list of backward classes.

What is the Composition of NCBC?

- The Commission consists of five members including a Chairperson, Vice-Chairperson and three other Members
- Appointed by the President by warrant under his hand and seal.
- The conditions of service and tenure of office is determined by the President.

What are the powers and functions of NCBC?

- Investigating and monitoring how safeguards provided to the backward classes under the Constitution and other laws are being implemented.
- Advising and making recommendations on socio-economic development of such classes.

- The central and state governments will be required to consult with the NCBC on all major policy matters affecting the socially and educationally backward classes.
- The NCBC will be required to present annual reports to the President on working of the safeguards for backward classes.
- These reports will be tabled in Parliament, and in the state legislative assemblies of the concerned states.
- The NCBC will have the powers of a civil court while investigating or inquiring into any complaints.

What is the significance of the NCBC?

- To provide Justice to the socially and educationally backward sections of the society
- Including a woman member from the backward classes in the commission is a progressive step.
- It would not encroach upon the rights of the state government as they would have their own backward class commission.
- Giving the constitutional status will ensure it has more power in terms of hearing complaints from OBC members on par with SC and ST commission.

What are the concerns associated with NCBC?

- The recommendation of NCBC is not binding on the government.
- Mere constitutional status and more acts will not solve the problem at the grassroots level as recent statistics show that the SC/ST and OBC categories are underrepresented.
- Many states have not yet implemented the 27% reservation to OBCs.
- The Features of the expert body, as directed by the Supreme Court judgement on Mandal case, are not provided in the composition of the new NCBC.
- NCBC as an expert body, provided that the chairman should be a former judge and member secretary should be a former secretary level officer of the government of India, one member should be a social scientist, and two persons with special knowledge of the socially backward classes.
- Article 338B (5) is also silent on the mandate of SC on periodic revision of the Socially and Educationally Backward Classes (SEdBC)list in consultation with the NCBC.

Practice Mains Questions:

Discuss the role of the National Commission for Backward Classes in ensuring the welfare of socially and educationally backward classes?

Static Topics to be referred:

NCBC

Ransomware attack

Theme: Cyber attacks; Cyber Security

Source: The Hindu

Why in news?

e-services at the All India Institute of Medical Sciences (AIIMS) were crippled by what is being suspected to be a ransomware attack.



What is ransomware?

- Type of malicious software, used by cyber criminals, to infect a computer system by blocking access to the stored data by encrypting the files.
- A ransom is then demanded from the owner in exchange for the decryption key.

How can a system be infected with Ransomware?

- The malware may usually be injected remotely by tricking the user into downloading it upon clicking an ostensibly safe web link sent via email or other means, including hacking.
- It can spread throughout the network by exploiting existing vulnerabilities.
- It can also be accompanied by theft of sensitive data for other sinister motives

How serious are ransomware attacks?

- At least five of the AIIMS' servers that hosted data related to more than three crore patients were compromised.
- It targets commercial and critical infrastructure
- Cybersecurity firm Trellix, in its third quarter global report, has identified 25 major ransoms in circulation.
- Global Crime Trend report 2022: According to Interpol's first ever report, ransomware was the second highest ranking threat after money laundering, at 66%.

What is the impact of Ransomware attack?

- Temporary or permanent loss of sensitive or proprietary information,
- Disruption to regular operations,
- Financial losses incurred to restore systems and files
- Potential harm to an organization's reputation.

Which agencies in India deal with cyberattacks?

1. Indian Computer Emergency Response Team (CERT-In):

- Set up in 2004, it is the national nodal agency that collects, analyses and circulates inputs on cyberattacks;
- It issues guidelines, advisories for preventive measures, forecasts and issues alerts;

- It takes measures to handle any significant cyber security event.
 - It also imparts training to computer system managers.
- ### 2. National Cyber Security Coordinator:
- The National Cyber Security Coordinator, under the National Security Council Secretariat, coordinates with different agencies at the national level on cybersecurity issues.
- ### 3. National Critical Information Infrastructure Protection Centre:
- It has been set up for the protection of national critical information infrastructure.
- ### 4. Cyber Swachhta Kendra (Botnet Cleaning and Malware Analysis Centre):
- It has been launched for detection of malicious software programmes and to provide free tools to remove the same.
- ### 5. National Cyber Coordination Centre:
- It works on creating awareness about existing and potential threats.

What are the practices recommended by CERT-In?

- Maintain regularly offline data backups with encryption.
- All accounts should have strong and unique passwords and lockout policy
- Multi-factor authentication for all services
- Disable remote desktop connections
- Anti-virus software should be updated
- Users must not open attachments or URL links in uninvited e-mails

Practice Mains Questions:

With the increase in threats posed by ransomware, there is need of concentrated effort to mitigate the risks. Elucidate. (15 marks)

Static Topics to be referred:

Cyber security; Cyber War; Cyber Terrorism

Heatwaves

Theme: Environment and Ecology

Source: The Hindu

Why in news?

From 2030, 160 million to 200 million people can be exposed to lethal heat waves in India every year, said in a World Bank report.



What are Heat waves?

- Period of abnormally high temperatures, more than the normal maximum temperature that occurs during the summer season
- Typically occurs between March and June, and in some rare cases even extends till July.

What are the criteria for Heat Waves?

- According to the Indian Meteorological Department (IMD), Heat Wave need not be considered till maximum temperature of a station reaches atleast 40°C for Plains and atleast 30°C for Hilly regions

Normal Minimum Temperature:

- **Less than or equal to 40°C:** An increase of 5°C to 6°C from the normal temperature is considered to be heat wave condition. Further, an increase of 7°C or more from the normal temperature is considered a severe heat wave condition.
- **More than 40°C:** An increase of 4°C to 5°C from the normal temperature is considered to be heat wave condition. Further, an increase of 6°C or more is considered a severe heat wave condition.

Actual Minimum Temperature: When actual maximum temperature remains 45°C or more irrespective of normal maximum temperature, heat waves should be declared.

What are the impacts of Heat waves in India?

- **Human health:** Excessive Heat impacts peoples' quality of life, harms those who suffer from respiratory and cardiovascular conditions and exacerbates asthma in children
- **Agriculture:** Impact on crop yield due to excess of temperature. There is also a Vulnerability of Livestock due to increased heat stress.
- **Electricity:** Heat Wave impacts Power load, there will be daily peak in demand for electricity
- **Economic Loss:** An ILO study says that at 34°C, workers can lose up to 50% of their work capacity, Loss of working days, which in turn impacts the economy
- **Food Security:** The rise in heat waves will increase the probability of droughts, decrease labor productivity and enhance demand for water. It impacts agriculture production and deters food security.
- **Environmental Impacts:** According to the Lancet report of 2021, 134 countries witnessed an increase in events of wildfires and droughts. **What are the strategies adopted to mitigate the impact of heat waves?**
- **Heat Waves Action Plan:** Aims to provide a framework for implementation, coordination and evaluation of extreme heat response activities in cities/town in India that reduces the negative impact of extreme heat
- **Recognition of Heat Waves as a Natural Disaster:**
- The National Disaster Management Act, 2005, and the National Policy on Disaster Management, 2009, do not consider heatwaves to be a natural disaster.
- It is not notified in the list of 12 disasters eligible for relief through national or state disaster relief funds.
- Recognition as a natural disaster would help the state and district administration prepare a heatwave action plan at the regional level.
- **Passive cooling technology:** Adoption of Passive cooling technology to create naturally ventilated buildings, can be an important alternative to address the urban heat island for residential and commercial buildings.
- **Establish Early Warning System and Inter-Agency Coordination:** To alert residents on predicted high and

extreme temperatures.

- **Public Awareness and community outreach :** Disseminating public awareness messages on how to protect against the extreme heatwave through print, electronic and social media and Information, Education and Communication materials.

Practice Mains Questions:

The frequent occurrence of heat waves adversely affects different sectors of the economy. In this context, discuss the long-Term strategies that India needs to adopt to mitigate the impacts of Heat Waves. (15 marks)

Static Topics to be referred:

Disaster Management

Global Layoff and its Impact on India

Theme: Economy; Development and Employment

Source: The Hindu

Why in news?

According to a global placement and coaching firm, the layoffs crossed 60,000 in September and October, it will have impact on India's export prospects, especially in the information technology (IT) sector.



Why are layoffs becoming common?

- The International Monetary Fund (IMF) has cited forecasts for global GDP growth in both 2022 and 2023 as dark, given the pandemic and ongoing Russia-Ukraine War.
- Inflation is soaring in most parts of the world.
- The Central Banks have been raising rates to contain the rising inflation.
- Increasing rates makes it more costly to borrow and consume which eventually affects economic growth and jobs.
- There is a potential economic recession underway which causes the big red flag.

What is the Outlook for the Indian IT industry?

- The Indian IT service firms are among the largest employers in the organised sector.
- Any global economic trend is bound to have an impact on their growth projections.
- The Companies will look into headcount numbers if they want to cut costs and protect profit margins.
- The attrition rate, or the number of employees per 100 quitting on their own are still high.

- All top companies except Wipro saw a rise in revenue and net profit.
- Both these two factors in favourable note, there is no visible sign of impact yet but it is to be expected in the next few months.
- These developments are bound to have an impact on India's export prospects, especially in the Information technology (IT) sector.

What about start-ups?

- News of layoffs in the Indian startup front is predominantly in Edtech, or the educational technology front.
- The Indian startup layoff tracker by Inc42 showed that more than 15,700 employees had been laid off in 2022.
- Byju's, Chargebee, Cars24, Ola, Innovaccer, Udaan, Unacademy and Vedantu are names that have been in the news for layoffs, according to Inc42.
- The reason cited is that fewer internet users are visiting educational websites and tightening funding conditions.

What happened in India during earlier global recessions?

- During earlier global recessions, companies rarely publicly announced layoffs, they would all look to ease out staff who were lower down the performance.
- Companies cut bench strength if they were in a bad state and if a person was about a month old on the bench asked to enroll for a training course.
- After the 2008 recession, the companies started slowing down headcount addition.

What is a Recession?

- It is a macroeconomic term that refers to a slowdown or a massive contraction in economic activities of the country.
- It is defined in economics as three consecutive quarters of contraction in GDP
- Economic metrics such as GDP, profits, employment collapse under this situation.

What is a Depression?

- It is a deep and long-lasting period of negative economic growth, with output falling for at least 12 months and GDP falling by over 10%
- It can be referred to as a severe and prolonged recession.

What are the steps to be taken to tackle the recession in a country?

- **Tax cuts:** It will enable consumers to spend more money. The resultant demand creation, in turn creates employment opportunities and economic growth.
- **Increase in Government Expenditures:** A rise in government spending can stimulate the economy by adding jobs, increasing economic output and boosting productivity.
- **Reduction in Interest Rates:** By cutting interest rates, the central bank effectively puts more money in the economy, encouraging savers to spend, it also makes borrowing less expensive.

Practice Mains Questions:

What is meant by recession? Discuss its impacts on the economy and highlight the measures to tackle it?

Static Topics to be referred:

Economic slowdown/recession; Depression

Prelims Facts

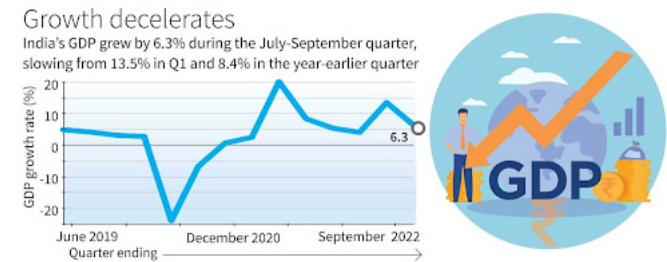
GDP Growth

Theme: Economy; GDP

Source: The Hindu

Why in news?

The National Statistical Office (NSO), Ministry of Statistics and Programme Implementation released the estimates of Gross Domestic Product (GDP) for the second quarter (July-September) of 2022-23 (Q2 2022-23), both at Constant (2011-12) and Current Prices.



What is Real GDP or GDP at Constant Prices?

- The Value of all goods and services used in calculating GDP at the base year price is called the Real GDP.
- Base year prices are constant prices.
- Currently, the base year for GDP calculation is 2011-12.
- Nominal GDP adjusted for the inflation compared to the base year gives Real GDP.

What is Nominal GDP or GDP at Current Prices?

- The value of all goods and services used in calculating GDP at the current price is called the nominal GDP.
- Current prices mean prices in the year of GDP calculation.

Gross domestic product (GDP):

- GDP is a measure of economic activity in a country.
- Gross domestic product (GDP) is the monetary value of all the finished goods and services produced within a country's borders in a specific time period.
- It gives the economic output from the consumers' side.

Gross Value Added(GVA):

- It is the value of output minus the value of intermediate consumption and is a measure of the contribution to growth made by an individual producer, industry or sector.
- Gross value added (GVA) is the value addition done to a product resulting in the production of the final product whereas Gross Domestic Product (GDP) is the total value of products produced in the country.
- GDP is GVA of all enterprises, government and households
- Gross Value Added = GDP + subsidies on products – taxes on products.

Maternal Mortality Ratio (MMR)

Theme: Health; Women

Source: PIB

Why in news:

Union Minister of Health & Family Welfare praised the remarkable progress in effectively lowering the Maternal Mortality Ratio (MMR)



What is the Maternal Mortality Ratio (MMR)?

- Defined as the number of maternal deaths during a given time period per 100,000 live births.

Status of MMR:

- Improved further by a spectacular 6 points and now stands at 97/ lakh live births.
- Released by the Registrar General of India (RGI)
- **National Health policy Targets:** India has accomplished the National Health Policy (NHP) target for MMR of less than 100/ lakh live births.
- **SDG target:** It is on the right track to achieve the SDG target of MMR less than 70/ lakh live births by 2030.
- **States:** 8 States achieve Sustainable Development Goal (SDG) target for MMR. **Related initiatives:**
 - National Health Mission (NHM)
 - Surakshit Matritva Aashwasan (SUMAN)
 - Pradhan Mantri Surakshit Matritva Abhiyan (PMSMA)
 - LaQshya and Midwifery initiatives

Manthan Platform

Theme: Economy

Source: PIB

Why in news:

The Manthan platform won NSEIT the Best Tech Initiative of the Year at the Dun & Bradstreet Business Excellence Awards 2022, for building the technology infrastructure to support Manthan.



**Office of the Principal Scientific Adviser
to the Government of India**



Manthan

Idea and implementation through
Science, Technologies, and Innovations

About Manthan Platform:

- Conceptualized and implemented by the Office of the Principal Scientific Adviser (PSA) to the Government of India.
- Aim: Promoting collaboration between industry and the scientific research and development ecosystem.
- Launched on India's 76th Independence Day.
- Empowers multiple stakeholders to collaborate for co-creating solutions aligned with the United Nations' Sustainable Development Goals (SDGs) and our national scientific missions.

About NSEIT:

- Global technology enterprise focused on delivering excellence in a complex digital environment, primarily in the banking, insurance, and capital market ecosystem
- 100% subsidiary of the National Stock Exchange of India.

Prelims Practice Questions:

1. Consider the following states and their festivals:

1. Hornbill: Sikkim
2. Sangai: Manipur

Which of the above is/are correct?

- a. 1 only
- b. 2 only
- c. Both 1 and 2
- d. Neither 1 nor 2

2. Consider the following statements regarding Great Indian Hornbill:

1. It is the state bird of Gujarat
2. It is listed as Vulnerable on the IUCN Red List.

Which of the above is/are correct?

- a. 1 only
- b. 2 only
- c. Both 1 and 2
- d. Neither 1 nor 2

3. Which of the following methods are used to calculate Gross Domestic GDP:

1. Income method
2. Expenditure method
3. Prime Cost method
4. Production method.

Select the correct answer using the code below:

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

4. Consider the following statements:

1. The Heatwave is considered when the maximum temperature of a station reaches at least 30°C for Plains and at least 40°C for Hilly regions.
2. It is one of the 12 disasters eligible for relief through national or state disaster relief funds.

Which of the above statements is/are correct?

- a. 1 only
- b. 2 only
- c. Both 1 and 2
- d. Neither 1 nor 2

5. Consider the following statements regarding Sangai:

1. It is the state animal of Nagaland.
2. It is listed as Endangered on IUCN Red List.

Which of the above statements is/are correct?

- a. 1 only
- b. 2 only
- c. Both 1 and 2
- d. Neither 1 nor 2

6. The type of malware used to infect a computer system by blocking access to the stored data by encrypting the files till a sum of money is paid is -

- a. Trojan
- b. Virus
- c. Wormhole
- d. Ransomware

7. Consider the following statements regarding Maternal Mortality Ratio:

1. It is defined as the number of maternal deaths during a given time period per 10,000 live births.
2. The data is released by the Registrar General of India (RGI)

Which of the above statements is/are correct?

- a. 1 only
- b. 2 only
- c. Both 1 and 2
- d. Neither 1 nor 2

8. Consider the following statements regarding Gross Value Added (GVA):

1. GVA at basic prices will include production taxes and exclude production subsidies.
2. GVA at factor cost included no taxes and excluded no subsidies.

Which of the above statements is/are correct?

- a. 1 only
- b. 2 only
- c. Both 1 and 2
- d. Neither 1 nor 2

9. Consider the following defence exercise:

1. Yudh Abhyas: India-UK
2. Agni Warrior: India-USA
3. Garuda Shakti: India-Indonesia
4. Harimau Shakti: India-Malaysia

How many of the pairs given above is/are correct?

- a. One pair only
- b. Two pairs only
- c. Three pairs only
- d. All four pairs

10. Consider the following statements regarding Supreme Court of India:

1. At present, the Supreme Court consists of 70 judges.
2. The judges of the Supreme Court are appointed by the President.

Which of the above statements is/are correct?

- a. 1 only
- b. 2 only
- c. Both 1 and 2
- d. Neither 1 nor 2

11. With reference to the Hornbill Festival, consider the following statements:

1. The objective is to showcase Nagaland as a world class tourism destination.
2. There are 9 hornbill species in India of which Great Hornbill is the most famous.

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

12. Consider the following statements:

1. iNCOVACC is the world's first intranasal Covid vaccine
2. It is developed by Bharat Biotech International Limited.
3. It is easy to administer as it does not require trained healthcare workers

Which of the above statements is/are correct?

- a. 1 and 2 only

- a. 2 and 3 only
b. 1 and 3 only
c. All 1, 2 and 3
13. Consider the following statements with respect to United Nations Security Council (UNSC)
1. It is the only organ of the United Nations that has the power to make decisions that member states are obligated to implement.
 2. Each year the UN General Assembly elects five non-permanent members for UNSC, out of 10 in total, for a two-year term.
- Which of the statement(s) given above is/are correct?
- a. 1 only
 - b. 2 only
 - c. Both 1 and 2
 - d. Neither 1 nor 2
14. Consider the following statements regarding Pradhan Mantri Fasal Bima Yojana (PMFBY)
1. It replaced the National Agriculture Insurance Scheme (NAIS) and Modified National Agricultural Insurance Scheme (MNAIS).
 2. The scheme is mandatory for all the farmers in the country
- Which of the above statements is/are correct?
- a. 1 only
 - b. 2 only
 - c. Both 1 and 2
 - d. Neither 1 nor 2
15. With reference to DigiYatra initiative, consider the following statements;
1. It is to achieve contactless, seamless processing of passengers at Airports, based on Facial Recognition Technology (FRT).
 2. It is implemented by the Directorate General of Civil Aviation.
- 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
16. Consider the following:
1. Ramlila
 2. Garba
 3. Sankirtana
- Which of the above is/are India's intangible cultural symbols on the UNESCO list?
- a. 1 and 2 only
 - b. 2 and 3 only
 - c. 1 and 3 only
 - d. 1, 2 and 3
17. Consider the following statements regarding National Automobile Scrappage policy:
1. It is aimed at creating an eco-system for phasing out unfit and polluting vehicles in an environmentally friendly and safe manner.
 2. Government commercial vehicles more than 15 years old and private vehicles which are over 20 years old will be scrapped.
- Which of the above statements is/are correct?
- a. 1 only
 - b. 2 only
 - c. Both 1 and 2
 - d. Neither 1 nor 2
18. Consider the following statements regarding Election Commission:
1. The Chief Election Commissioner holds office till the pleasure of the President
 2. The Election Commissioners are appointed by the President.
- Which of the above statements is/are correct?
- a. 1 only
 - b. 2 only
 - c. Both 1 and 2
 - d. Neither 1 nor 2
19. In which of the following groups are the four countries members of G-20?
- a. Brazil, Indonesia, China, Turkey
 - b. India, Australia, Spain, Italy
 - c. USA, Mexico, Qatar, Russia
 - d. Saudi Arabia, Canada, Turkey, United Arab Emirates
20. Which among the following steps is most likely to be taken at the time of an economic recession?
- a. Cut in tax rates accompanied by increase in interest rate
 - b. Increase in expenditure on public project
 - c. Increase in tax rates accompanied by reduction of interest rate
21. Consider the following statements regarding e-rupee:
1. It is a legal tender issued by the RBI in digital form.
 2. It is exchangeable one-to-one with the fiat currency.
- Which of the above statements is/are correct?
- a. 1 only
 - b. 2 only
 - c. Both 1 and 2
 - d. Neither 1 nor 2
22. Consider the following statements regarding Erra Matti Dibbalu:
1. They are rare red sand dunes located in Kerala
 2. It is notified as a National Geological Heritage Monument Sites of India by the Geological Survey of India.
- Which of the above statements is/are correct?
- a. 1 only
 - b. 2 only
 - c. Both 1 and 2
 - d. Neither 1 nor 2
23. Consider the following:
1. Wassenaar Agreement
 2. Missile Technology Control Regime (MTCR)
 3. Australia Group
 4. Nuclear Suppliers Group
- Which of the above is/are India a part of?
- a. 1, 2 and 4 only
 - b. 1, 3 and 4 only
 - c. 2, 3 and 4 only
 - d. 1, 2 and 3 only
24. Consider the following statements:
1. Cutting Cost of Maintaining Physical Currency
 2. Globalisation of Payment System
 3. Not prone to cyber attacks

1. Reducing Dependency on Dollar

Which of the above is/are the advantages of e-rupee?

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

25. Consider the following statements:

1. Disability comes in the Union List of the Seventh Schedule of the Constitution
2. India has ratified the Convention on the Rights of Persons with Disabilities (UNCRPD)

Which of the above statements is/are correct?

- a. 1 only
- b. 2 only
- c. Both 1 and 2
- d. Neither 1 nor 2

26. Consider the following statement:

1. A money market is a market for short-term funds.
2. Commercial paper is a type of unsecured, short-term debt instrument issued by corporations that comes under the Capital market.

Which of the above statements is/are correct?

- a. 1 only
- b. 2 only
- c. Both 1 and 2
- d. Neither 1 nor 2

27. Consider the statement with regard to Rights of Persons with Disabilities Act, 2016:

1. The types of disabilities included under the act are 21.
2. Every child with benchmark disability between the age group of 6 and 18 years shall have the right to free education.

Which of the above statements is/are correct?

- a. 1 only
- b. 2 only
- c. Both 1 and 2
- d. Neither 1 nor 2

28. Consider the following with regard to Urban Cooperative Banks:

1. The State Government is vested with the responsibility of regulating and supervising primary (urban) cooperative banks.
2. The central bank has prescribed a net NPA of not more than 3%.
3. The Reserve Bank of India established a three-tier framework of UCBs for regulatory purposes.

Which of the above statements is/are correct?

- a. 1 and 2 only
- b. 2 only
- c. 2 and 3 only
- d. 1 only

29. Consider the following statements:

1. National Commission for Backward Classes (NCBC) is a Constitutional Body.
2. Article 342A that gives the Governor the power to notify any particular caste as socially and Educationally Backward Classes (SEBC)

Which of the above given statements is/are correct?

- a. 1 only
- b. 2 only

- a. Both 1 and 2
- b. Neither 1 nor 2

30. Natovenator polydontus, recently seen in the news, is -

- a. An early human species
- b. Fossils of a kind of dinosaur
- c. A cave system in north-east India
- d. A geological period in the history of Indian subcontinent