

### INDIA WEB BROWSER DEVELOPMENT CHALLENGE (IWBCD)

The Ministry of Electronics and Information Technology (MeitY) recently launched the Indian Web Browser Development Challenge (IWBCD).



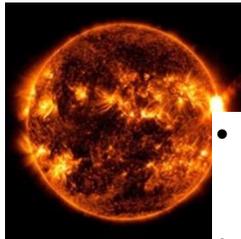
#### About India Web Browser Development Challenge (IWBCD):

- The challenge is spearheaded by MeitY in collaboration with the Controller of Certifying Authorities (CCA) and the Centre for Development of Advanced Computing (C-DAC) Bangalore.
- The Challenge seeks to inspire and empower technology enthusiasts, innovators, and developers from all corners of the country to create an indigenous web browser.
- The desired browser will have its own trust store, use a root certificate from India's CCA, and offer cutting-edge functionalities and enhanced security & data privacy protection features.
- As part of the challenge the government has announced a cash prize of Rs 3.4 crores for the developers.
- **Qualifications for Participants:**
  - The Indian Tech Start-ups, MSMEs, Companies, and LLPs registered in India under the Companies Act 2013 can apply.
  - The entity must have at least 51% shareholding with Indian citizens or persons of Indian origin.
  - The applicant's entity should not be a subsidiary company of any foreign corporation.
  - Participants can apply either as “individuals” or “organization”. Members applying as “individuals” should have a minimum of 3 and a maximum of 7 members in their Group.
  - All other applicants (Startups, MSME, etc.) should apply under the “organization” category only.
- **Desired features in an Indian web browser:** The ministry has also laid down the features desired in an Indian web browser.
  - It must be compatible with all platforms, including iOS, Android and Desktop.

- It should offer **built-in accessibility support**.
- The browser should also have the **ability to digitally sign the documents using a crypto token**.
- It should also have **parental control and a web filter for child-friendly browsing**.
- It should come **with support for Web3 and compliance with W3C standards**.
- Lastly, it should also **support all the official Indian languages**.

## WHAT IS A SOLAR FLARE?

A powerful solar flare disrupted radio and navigation signals across North America recently.



### About Solar Flare:

- A solar flare is an **intense burst of radiation** coming from the release of **magnetic energy associated with sunspots**.
- Flares are our **solar system's largest explosive events**.
- They are seen as **bright areas on the sun**, and they can last from **minutes to hours**.
- In a matter of just a few minutes, they **heat the material to many millions of degrees** and **produce a burst of radiation across the electromagnetic spectrum**, including from radio waves to x-rays and gamma rays.
- Although solar flares **can be visible in white light**, they are **often more readily noticed via their bright X-ray and ultraviolet emissions**.
- **Effect on Earth:**
  - The intense radiation emitted during a solar flare can **affect satellite communications, disrupt radio signals**, and even **pose a risk to astronauts in space**.
  - Additionally, the increased solar radiation **can lead to geomagnetic storms**, which may **impact power grids and cause auroras** (northern and southern lights) at lower latitudes.

### What is a Geomagnetic Storm?

- A geomagnetic storm is a **major disturbance of Earth's magnetosphere**.
- These storms **result from variations in the solar wind** that **produces significant changes in the currents, plasmas, and fields in Earth's magnetosphere**.

- The solar wind conditions that are effective for creating geomagnetic storms are **sustained (for several hours) periods of the high-speed solar wind and a southward-directed solar wind magnetic field** (opposite the direction of Earth's field) **at the dayside of the magnetosphere.**
- The **largest such storms are associated with solar coronal mass ejections (CMEs)**, where a billion tons or so of plasma from the sun, with its embedded magnetic field, arrives at Earth.

### Key Facts about Coronal Mass Ejections (CMEs):

- Solar flares are **different to 'coronal mass ejections'** (CMEs), which were once thought to be initiated by solar flares.
- CMEs are **large expulsions of plasma and magnetic field from the Sun's corona that propagates outward into interplanetary space.**
- Although some are accompanied by flares, it is now known that **most CMEs are not associated with flares.**
- The **blast of a CME carries about a billion tons of material out from the Sun at very high speeds** of hundreds of kilometers per second.

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## ELECTION COMMISSION OF INDIA

### Why in news?

- The Chief Election Commissioner and other Election Commissioners (Appointment, Conditions of Service and Term of Office) Bill, 2023, has been introduced by the government in the Rajya Sabha.
- The Bill seeks to remove the Chief Justice of India (CJI) from a panel to select the Chief Election Commissioner and Election Commissioners.
  - Earlier, in March 2023, the Supreme Court had ruled that the selection of Chief Election Commissioner and Election Commissioners be done by a three-member committee.
  - The committee should comprise the Prime Minister, the Leader of the Opposition in the Lok Sabha and the Chief Justice of India.

### About Election Commission of India:

- Election Commission is a permanent and independent body.
- By **Article 324** of the Constitution of India, it is vested with the power of conducting elections to  
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  - **Parliament,**
  - **State Legislatures,**
  - **Office of President and Vice-President of India.**

### **Appointment and Tenure of Commissioners:**

- The Constitution does not lay down a specific legislative process for the appointment of the Chief Election Commissioner and Election Commissioners.
  - **Article 324(2)** says appointment of CEC and other ECs shall be subject to provisions of any law made by the Parliament.
  - However, no such law has been framed so far.
- **The President makes the appointment on the advice of the Union Council of Ministers headed by the Prime Minister.**
- They have **tenure of six years, or up to the age of 65 years**, whichever is earlier.
- They enjoy the same status and receive salary and perks as available to Judges of the Supreme Court of India.
- The CEC can be removed from office except in same manner and on the same grounds as a judge of the Supreme Court.
- The Constitution has **not debarred the retiring Election Commissioners from any further appointment by the Government.**

### **Composition of Election Commission:**

- Since the inception and till 15<sup>th</sup> October 1989, the EC functioned as a single member body consisting of the CEC.
- On 16<sup>th</sup> October 1989, the **President appointed two more commissioners to cope with the increased work of the EC, on account of lowering of the voting age from 21 to 18 years.**

- In case of difference of opinion amongst the CEC and/or two other election commissioners, **the matter is decided by the Commission by majority.**
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## WHAT IS TAKAKIA?

**Takakia that has survived for millions of years is now threatened by climate change.**



### **About Takakia:**

- It is a **rare genus of moss that** adapted over millions of years to life at high altitudes.
- **Appearance:** When seen from a distance, it looks like a later of moss or green algae on the rocks where it grows. But closer inspection would reveal slender turf around one centimetre in length with an arrangement of short, finger-like leaves.
- It is a genus that only has two species ( **lepidozoides and T. ceratophylla** ) and both of them are found together only in the Tibetan Plateau.
- It has developed the **ability to survive frost, life-threatening UV radiation** and other hazardous conditions.
- It combines features found in **mosses, liverworts and green algae.**
- It is a moss that separated from other mosses 390 million years ago, not long after the first land plants evolved.

### **Key facts about Moss**

- It is a small **nonvascular spore-bearing land plants.**
  - Mosses are **distributed throughout the world except in salt water** and are commonly found in moist shady locations.
  - Ecologically, mosses **break down exposed substrata**, releasing nutrients for the use of more-complex plants that succeed them.
  - They **also aid in soil erosion control by providing surface cover** and absorbing water, and they are important in the nutrient and water economy of some vegetation types.
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## NATIONAL SOCIAL ASSISTANCE PROGRAMME

Recently, the Comptroller and Auditor General of India submitted the report on the performance audit of the National Social Assistance Programme from 2017-18 to 2020-21.



### About National Social Assistance Programme:

- It was launched on 15th August, 1995.
- **Objective**

- It is a **social security and welfare programme** to provide support to aged persons, widows, disabled persons and bereaved families on death of primary bread winner, belonging to below poverty line households.
- **Eligibility**
  - For getting benefits under NSAP the applicant **must belong to a Below Poverty Line (BPL) family** according to the criteria prescribed by the Govt. of India.
  - The other eligibility criteria and the scale of central assistance under the sub - schemes of NSAP are as follows
  - Presently NSAP **comprises of five schemes**, namely –
    - **Indira Gandhi National Old Age Pension Scheme (IGNOAPS):** The eligible age for IGNOAPS is 60 years. The pension is Rs.200 p.m. for persons between 60 years and 79 years. For persons who are 80 years and above the pension is Rs.500/- per month.
    - **Indira Gandhi National Widow Pension Scheme (IGNWPS):** Widow aged 40 years will get pension is Rs.300 per month. After attaining the age of 80 years, the beneficiary will get Rs.500/- per month.
    - **Indira Gandhi National Disability Pension Scheme (IGNDPS):** An individual aged 18 years and above and the disability level has to be 80% will get Rs.300 per month and after attaining the age of 80 years, the beneficiary will get Rs 500/- per month.
    - **National Family Benefit Scheme (NFBS) :** In the event of death of the bread – winner Rs. 20000/- will be given as a lumpsum assistance to the bereaved household. The breadwinner should have been between 18-60 years of age.

- **Annapurna:** The scheme aims at provide food security to meet the requirements of those eligible old aged persons who have remained uncovered under the IGNOAPS. Under this programme **10 kgs of food grains (wheat or rice)** is given per month per beneficiary.
  - **Nodal Ministry:** Ministry of Rural Development
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## WHAT IS THE CASH RESERVE RATIO (CRR)?

The Reserve Bank of India (RBI) recently asked Indian banks to set aside a larger share of incremental deposits under the Cash Reserve Ratio (CRR).



### **About Cash Reserve Ratio (CRR):**

- Cash Reserve Ratio (CRR) is the share of a bank's total deposit that is mandated by the Reserve Bank of India (RBI) to be maintained with the latter as reserves in the form of liquid cash.
- The bank cannot use this amount for lending and investment purposes and does not get any interest from the RBI.
- CRR applies to scheduled commercial banks, while the regional rural banks and NBFCs are excluded.

### **Key objectives of the Cash Reserve Ratio:**

- CRR helps control inflation. In a high-inflation environment, RBI can increase CRR to prevent banks from lending more.
- CRR also ensures banks have a minimum amount of funds readily available to customers even during huge demand.
- CRR serves as the reference rate for loans. Also known as the base rate for loans, the banks cannot offer loans below this rate.
- Since CRR regulates the money supply, it boosts the economy whenever required by lowering the CRR.

**How is CRR Calculated?**

- CRR is calculated as a **percentage of Net Demand and Time Liabilities (NDTL)**.
- This percentage is **fixed by the RBI** and is changed from time to time by the central bank itself.
- **NDTL for banking refers to the aggregate savings account, current account and fixed deposit balances held by a bank.**
- **Currently, the CRR is fixed at 4.50%.** This means that for every Rs 100 worth of deposits, the bank has to keep Rs 4.5 with the RBI.

### **Key Facts about Statutory Liquidity Ratio (SLR):**

- SLR is a **minimum percentage of deposits** that a commercial bank has to maintain in the form of **liquid cash, gold or other securities.**
- It is basically the **reserve requirement** that banks are expected to keep before offering credit to customers.
- However, these **deposits are maintained by the banks themselves and not with the RBI.**
- The SLR is **fixed by the RBI.**

### **How does SLR work?**

- Every bank must have a **particular portion of their NDTL in the form of cash, gold, or other liquid assets** by the end of the day.
- The **ratio of these liquid assets to the demand and time liabilities** is called the SLR.

### **Importance of SLR:**

- The government uses the SLR to **regulate inflation and liquidity.**
- **Increasing the SLR will control inflation** in the economy while decreasing it will cause growth in the economy.
- Although, the SLR is a monetary policy instrument of RBI, **it is important for the government to make its debt management programme successful.**
- SLR has **helped the government to sell its securities or debt instruments to banks.**
- Most of the **banks will be keeping their SLR in the form of government securities** as it will earn them an interest income.

## PUSHp PORTAL

Recently, the National Power Committee (NPC) has asked States to provide suggestions for offering incentives to buyers and sellers on the surplus power portal PUSHp,



### About PUSHp portal:

- A High Price Day Ahead Market (HP-DAM) and Surplus Power Portal (PUSHp) was launched by the Ministry of Power.
- It was launched to ensure **greater availability of power during the peak demand season** at a price higher than the ceiling of Rs 12 per unit by certain category of sellers.
- The power distribution companies (DISCOMs) will be **able to indicate their surplus power in block times / days / months on portal.**
- Those DISCOMs who need power will be able to requisition the surplus power.
- The new buyer will pay both variable charge (VC) and fixed cost (FC) as determined by Regulators. Once power is reassigned, the original beneficiary shall have no right to recall as entire FC liability is also shifted to the new beneficiary.
- This **will reduce the fixed cost burden on the DISCOMs**, and will also enable all the available generation capacity to be utilized.

### What is Day Ahead Market?

- It is a physical electricity trading market where **power is delivered within 24 hours of the next day starting from midnight.**
- They are traded in 15 minute time blocks and the prices and quantum of electricity closed the auction bidding process.