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Credit Guarantee Scheme for Subordinate Debt

- Credit Guarantee Scheme for Subordinate Debt (CGSSD) has been extended up to September 30, 2021.
- It was launched by the Ministry of Ministry of Micro, Small and Medium Enterprises (MSME) in 2020 to provide financial facility to stressed MSMEs, under the AtmaNirbhar Bharat Package.
- It extends support to the promoters of the MSMEs with Special Mention Accounts-2 (SMA-2) and NPA accounts which are stressed and have become NPA as on April 30, 2020.
- The eligible accounts for restructuring are selected as per RBI guidelines on the books of the lending institutions.
- The promoters of the MSME unit will be given credit equal to 15% of stake in the company or Rs 75 lakh, whichever is lower.
- Fraud/wilful defaulter accounts won't be considered under the scheme.

Special Mention Accounts

- The classification of SMA was introduced by the RBI in 2014, to identify those accounts that may become an NPA/Stressed Asset.
- They are those assets/accounts that shows symptoms of bad asset quality in the first 90 days itself or before it being identified as NPA.
- Types of Special Mention Accounts (categorized in terms of duration)

a. SMA-NF - Non-financial indications about stress of an asset.
b. SMA-0 accounts in which loan repayments are wholly or partly overdue for a period of up to 30 days.
c. SMA-1 - Principal or interest payment overdue for 31-60 days.
d. SMA-2 - Principal or interest payment overdue for 61-90 days.

Retail G-Sec

- The Reserve Bank of India (RBI) allowed retail investors to participate in the government securities (G-Sec) market through 'Retail Direct', an online portal for trading.
- This is a key structural reform since India is only the third country, after the US and Brazil, in enacting such a provision.

- [The RBI has been allowing small investors to participate in G-Sec market since 2001.]
- Through the proposed initiative, the RBI is going to auction long-term dated securities (G-Secs, State Development Loans) and short-term instruments (Treasury Bills) to retail investors.
- The main objectives of the government are:
    a. To provide retail investors a digital avenue for their financial savings;
    b. To meet its mammoth borrowing programme of ₹12 lakh crore in order to bridge its burgeoning fiscal deficit, and
    c. To broaden and deepen the investors' base for better price discovery in the G-Sec market.
- G-Secs/SDLs usually fare better in terms of safety, and offer higher yields than fixed deposits (FDs) in banks, but they provide lower after-tax returns compared to other small savings instruments.
- Retail investors can easily invest in G-Secs in the primary market, but it may not be that easy to sell (before maturity) in the secondary market since these securities need to be liquidated at prevailing market prices.
- Digital financial inclusion can be a reality when the proposed G-Secs are made accessible to all eligible investors, including foreign investors.

Baikal-GVD

- Russian scientists launched Baikal-GVD (Gigaton Volume Detector), an underwater neutrino telescope in the waters of Lake Baikail, the world's deepest lake situated in Siberia.
- Baikal-GVD is one of the world's three largest neutrino detectors along with the IceCube (South Pole) and ANTARES (Mediterranean Sea).
- The telescope will study in detail the elusive fundamental particles called neutrinos and to possibly determine their sources.
- Studying them will help us understand the origins of the universe since some neutrinos were formed during the Big Bang; others continue to be formed due to supernova explosions or nuclear reactions in the Sun.
- One way of detecting neutrinos is in water or ice, where neutrinos leave a flash of light or a line of bubbles when they interact.
- An underwater telescope such as the GVD is designed to detect high-energy neutrinos that may have come from the Earth's core, or could have been produced during nuclear reactions in the Sun.

Neutrinos

- They are the 2nd most abundant particles, after photons (light particles).
- They are not easy to catch, as they do not carry a charge, as a result of which

they do not interact with matter.
- They also might have unique properties that would help explain why the universe is made of matter instead of antimatter.
- Subatomic particles that make up antimatter have properties that are opposite to the subatomic particles of normal matter.
- Protons, neutrons and electrons (subatomic particles of normal matter) are among the 12 quarks and leptons have been discovered so far.

Supramolecules in Capacitors

- Researchers from Indian Institute of Science Education and Research (IISER), Bhopal, are developing a novel dielectric material for capacitors.
- Supramolecular chemistry and crystal engineering was used to design, synthesise and crystallise organic materials with high dielectric constants.
- ['Supramolecular chemistry' is the study of large molecules formed by weak and reversible (non-covalent) bonds.]
- These materials will be developed from non-toxic organic compounds that have dielectric constants comparable to inorganic material.

Dielectric material

- Dielectric material is the key component of capacitors - devices that store electrical charges (like batteries).
- These are a class of electrical insulators that can store electrical charges in the presence of an externally applied electric field.
- The charge stored is measured in terms of the 'dielectric constant' - the more the charge stored, the higher the constant.

Report on Light Pollution

- The Royal Astronomical Society has published the first-ever study that took into account the overall impact of space objects around Earth.
- This study was done by the Slovak Academy of Sciences and Comenius University in Slovakia.
- This study has shown that the objects sent to space that orbit the Earth increase the overall brightness of night sky by 10% above natural levels.
- This additional light pollution has an impact over a larger part of the globe than ground-based sources.
- For calculations, the scientists from institutions in Slovakia, Spain and the US considered the active satellites as well as artificial space debris.
- Large fleets of communication satellites in the space not just add to the light pollution but also collide and form more debris.
- Light from this piling debris cloaks astronomical bodies like 'the glowing

clouds of stars in the Milky Way' from human sight.

New Emission Norms for Thermal Power Plants

- India has pushed back deadlines for coal-fired power plants to adopt new emission norms by up to 3 years and allowed utilities that miss the new target to continue operating after paying a penalty.
- Previously, the Environment Ministry has ordered that the deadline for these plants to install Flue Gas Desulphurization (FGD) units, it includes
    a. Plants near populous regions and New Delhi will have to comply by 2022,
    b. Utilities in less polluting area shave up to 2025 to comply or retire units.
- A task force will be constituted by the Central Pollution Control Board to categorise plants in three categories on the basis of their location to comply with the emission norms.
- In case of non-compliance, a penalty of up to Rs. 0.20 will be levied for every unit of electricity produced.
- Thermal power companies produce 3/4th of the country's electricity.
- They account for 80% of industrial emissions of particulate matter, sulphur- and nitrous-oxides - Causes lung diseases, acid rain and smog.

Source: PIB, The Hindu, The Indian Express, Down To Earth, Business Line

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