

1. Consider the following statements about Marginal Standing Facility (MSF)

- 1) It is a window available to banks under which they are able to borrow overnight funds from RBI against the approved government securities
- 2) The main objective of MSF is to reduce volatility in the overnight lending rates in the inter-bank market

Which of the statements given above is/are incorrect?

- A. 1 only
- B. 2 only
- C. Both 1 and 2
- D. Neither 1 nor 2

Answer: D

Explanation:

**Marginal Standing Facility (MSF) scheme**

- It is a new Liquidity Adjustment Facility (LAF) window created by Reserve Bank of India in its credit policy of May 2011.
- MSF is the rate at which the banks are able to borrow overnight funds from RBI against the approved government securities.
- The scheme has been introduced by RBI with the main aim of reducing volatility in the overnight lending rates in the inter-bank market and to enable smooth monetary transmission in the financial system.

**Why in News?**

- The Monetary Policy Committee of the RBI has voted unanimously to leave the policy repo rate unchanged at 4%.
- The MPC also decided to continue with the **accommodative stance** as long as necessary to sustain growth on a durable basis and continue to mitigate the impact of COVID-19 on the economy.
- The **marginal standing facility (MSF) rate** remains unchanged at 4.25% and the **reverse repo rate** stands unchanged at 3.35%.

2. Consider the following statements about flash floods

- 1) Floods that occur within six hours and often within 3 hours of heavy rainfall can be termed as flash floods.
- 2) Heavy rainfall is the only potential cause of a flash flood.

Which of the statements given above is/are correct?

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

Answer: A

Explanation

What is a flash flood

- Flash floods are defined as floods that **occur within six hours and often within 3 hours of heavy rainfall or another cause.**
- These are **highly localised events of short duration.** However, flash floods can **sometimes happen within minutes** or just a **few hours** of a heavy rain.
- Heavy rainfall isn't the only potential cause of a flash flood. Melting snow and ice jams in mountain streams can send torrents of water unexpectedly into low-lying areas. Likewise, dam failures can send walls of water downstream without warning. Hence **statement 2 is incorrect**

Issues Associated

- **Forecasting** of flash floods is **tough**
- **Frequency** of events have **increased** due to climate change
- **Himalayas** are a **volatile** mountain system
- Overlooking **environmental norms** may cause flash floods and this is primarily seen after dams are constructed without adequate risk analysis.

India's role

- **India is leading a delegation** of countries, including **Bhutan, Sri Lanka, Bangladesh, and Nepal**, in the exchange of hydrological and meteorological data in order to prepare flash flood forecasts.
- The system was developed in collaboration with **India's National Disaster Management Authority (NDMA) and the Central Water Commission (CWC).**
- The India Meteorological Department (IMD) has launched the **South Asian Flash Flood Guidance System (FFGS)**, which is designed to assist disaster management teams and governments in developing timely evacuation plans ahead of a flooding event.

3. Which of the following is/are advantages of Lithium ion batteries?

- 1) High energy density
- 2) Low maintenance
- 3) Low self discharge
- 4) Longer life span

Select the correct answer using the codes given below

- a) 1 and 2 only
- b) 2 and 3 only
- c) 1 and 4 only
- d) 1,2,3 and 4

**Answer: D**

**Explanation:**

- A lithium-ion battery or Li-ion battery is a type of rechargeable battery.
- Li-ion batteries use an intercalated (Intercalation is the reversible inclusion or insertion of a molecule into materials with layered structures) lithium compound as one electrode material, compared to the metallic lithium used in a non-rechargeable lithium battery.
- The battery consists of electrolyte, which allows for ionic movement, and the two electrodes are the constituent components of a lithium-ion battery cell.
- Lithium ions move from the negative electrode to the positive electrode during discharge and back when charging.
- They are one of the most popular types of rechargeable batteries used for military, battery electric vehicles and aerospace applications.

**Lithium-ion battery advantages:**

- **High energy density** - Lithium-ion batteries can have a high power capacity without being too bulky. It is one of the main reasons why they are so popular in the portable devices industry.
- **Low self-discharge** - Lithium-ion batteries have extremely low self-discharge rate that means that the battery has a longer shelf life when not in use because it discharges slowly than other rechargeable batteries.
- **Quick charging** - Lithium-ion battery is quicker to charge than other rechargeable batteries. It actually takes a fraction of a time to charge when compared to counterparts.
- **Low maintenance** - Lithium-ion batteries do not require and maintenance to ensure their performance, as they have zero to low memory effect and low self-discharge.
- **Long life span**

**Limitations**

- Requires protection circuit to maintain voltage and current within safe limits.

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- Subject to aging, even if not in use - storage in a cool place at 40% charge reduces the aging effect.
- Transportation restrictions - shipment of larger quantities may be subject to regulatory control. This restriction does not apply to personal carry-on batteries.
- Expensive to manufacture

#### 4. Consider the following statements about Project RE-HAB

- 1) The project envisages to achieve universal accessibility for Persons with Disabilities (PwDs).
- 2) It is implemented by the Ministry of Social Justice and Empowerment.

Which of the statements given above is/are correct?

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

Answer: D

Explanation

What is Project RE\_HAB?

- **Khadi and Village Industries Commission (KVIC)**, recently launched a unique project of creating “**bee-fences**” to mitigate human – elephant conflicts in the country.
- The **objective** of Project RE-HAB (Reducing Elephant – Human Attacks using Bees) is to **thwart elephant attacks in human habitations using honey bees** and thus reducing loss of lives of both, humans as well as elephants.
- The pilot project was launched at four locations around village Chelur in Kodagu district of Karnataka which are located on the periphery of **Nagarhole National Park and Tiger Reserve** and prone to human-elephant conflicts.
- Project RE-HAB is a **submission under KVIC’s National Honey Mission**.
- While the Honey Mission is a programme to increase the bee population, honey production and beekeepers’ income by setting up apiaries, Project RE-HAB uses bee boxes as a fence to prevent the attack of elephants.

**How does it work?**

- KVIC has set up 15-20 interspersed bee boxes at each of the four locations in the passage ways of elephant-human conflict zones to block the entrance of elephants to human habitations.
- The boxes are connected with a string so that when elephants attempt to pass through, a tug or pull causes the bees to swarm the elephant herds and dissuade them from progressing further.
- Bee boxes have been placed on the ground as well as hung from the trees to block the passage of elephants.
- High resolution, night vision cameras have been installed at strategic points to record the impact of bees on elephants and their behavior in these zones.

**5. With reference to the Competition Commission of India (CCI), consider the following statements.**

1. It is a constitutional body.
2. Its objective is to prevent practices having adverse effects on competition.

**Which of the statements given above is/are correct?**

- A. 1 only
- B. 2 only
- C. Both 1 and 2
- D. Neither 1 nor 2

Answer: **B**

**Explanation:**

- **Statement 1 is incorrect:** The Competition Commission of India (CCI) is a **statutory body** established under the **Competition Act, 2002** for the administration, implementation and enforcement of the Act.
- The following are the objectives of the Commission.
  - To prevent practices having adverse effects on competition. **Hence, statement 2 is correct.**
  - To promote and sustain competition in markets.
  - To protect the interests of consumers and
  - To ensure freedom of trade
- CCI consists of a Chairperson and 6 Members appointed by the Central Government.