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Daily MCQs: 29-04-2024

1. With reference to Prepaid Payment Instruments (PPIs), consider the following statements.

1. PPIs facilitate the purchase of goods and services against the money stored in them.
2. Only banks are allowed to issue PPIs after obtaining approval from the RBI.

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

2. The main objective of OSIRIS-REx of NASA is

- A. Study the surface of Mars
- B. Study the dynamic nature of sun's corona
- C. Collect samples from Asteroid Bennu
- D. Study lagrange points

3. Consider the following statements about liquid Nano urea.

1. It consists of urea in the form of a nanoparticle containing nitrogen particles.
2. Punjab Agricultural University has developed and patented nano urea liquid technology.
3. Liquid nano urea is sprayed directly on the leaves and gets absorbed by the plant.

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

- A. Only one
- B. Only two
- C. All three
- D. None

4. Consider the following statements about the Mekong River.

1. It is a trans boundary river.
2. The Mekong River drains into the Andaman sea.

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

5. Increase in Repo Rate by the Reserve Bank of India results in

- A. Borrowing from the RBI becomes cheaper

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- B. Mobilization of more deposits by commercial banks
- C. No change in the liquidity in the market
- D. Decrease in the money supply in the market

Solutions:

1. Answer: A

Explanation:

What are PPIs?

- **Statement 1 is correct:** PPIs are instruments that **facilitate the purchase of goods and services, conduct of financial services and enable remittance facilities, among others, against the money stored in them.** PPIs can be issued as **cards or wallets.**
- There are two types of PPIs – **small PPIs and full-KYC** (know your customer) PPIs. Further, small PPIs are categorized as – PPIs up to Rs 10,000 (with cash loading facility) and PPIs up to Rs 10,000 (with no cash loading facility).
- PPIs can be loaded/reloaded by cash, debit to a bank account, or credit and debit cards. The cash loading of PPIs is **limited to Rs 50,000 per month** subject to the overall limit of the PPI.

Who can issue PPI instruments?

- **Statement 2 is incorrect:** PPIs can be issued by **banks and non-banks** after **obtaining approval from the RBI.** As of 2022, over 58 banks including Airtel Payments Bank, Axis Bank, Bank of Baroda, Jio Payments Bank, Kotak Mahindra Bank, Standard Chartered Bank, UCO Bank and Union Bank have been permitted to issue and operate prepaid payment instruments.
- There are more than 30 non-bank PPI issuers. Some of the non-bank PPI issuers are Amazon Pay (India), Bajaj Finance, Delhi Metro Rail Corporation Ltd, Manappuram Finance Ltd, Ola Financial Services, Razorpay Technologies and Sodexo SVC India Pvt.

2. Answer: C

Explanation:

- The OSIRIS-REx (Origins, Spectral Interpretation, Resource Identification, and Security-Regolith Explorer) is a **NASA asteroid-study and sample-return mission** that was launched in 2016.
- Its objective was to visit and collect samples from **Asteroid Bennu, a carbon-rich near-Earth asteroid.**
- OSIRIS-Rex arrived at asteroid Bennu in 2018 and in 2020 it picked up a sample from the surface of Bennu before beginning the long journey home in 2021.
- After a seven-year round trip, NASA's OSIRIS-REx has brought asteroid samples to Earth last year.

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- The returned samples collected from Bennu will help scientists worldwide make discoveries to better understand planet formation and the origin of organics and water that led to life on Earth, as well as benefit all of humanity by learning more about potentially hazardous asteroids.
- Having released its capsule, the spacecraft will travel to a new target, the **asteroid Apophis**, which will fly close to Earth in 2029.

3. Answer: **B**

Explanation:

- **Statement 1 is correct:** Nano urea is **urea in the form of a nanoparticle containing nitrogen particles of 20–50 nanometres in size**. It provides nitrogen to plants in **liquid form** as an alternative to conventional urea.
- **A 500ml bottle of nano urea is equivalent to a 45kg bag of conventional urea.**

Who developed nano urea liquid?

- **Statement 2 is incorrect:** The **Indian Farmers Fertiliser Cooperative Limited (IFFCO)**, a **cooperative society**, has **developed and patented** nano urea liquid technology.
- IFFCO is producing indigenously-developed nano urea at its Nano Biotechnology Research Centre in Kalol (a city in Gandhinagar district of Gujarat) on a commercial scale.
- IFFCO will **transfer the technology** of Liquid Nano Urea to public sector fertiliser companies to increase production rapidly.
- In the **non-urea fertiliser category** too, there are plans to develop and produce nano stuff such as **Nano-DAP (Diammonium phosphate), Nano-Zinc, Nano-Boron etc.**

What are the benefits of nano urea liquid?

- Nano urea liquid will help in **reducing the use of chemical fertilizers to save the environment** because the **imbalanced use of fertilizers is deteriorating the health of the soil**. It is also causing **air and water pollution**.
- Nano Urea can be a game-changer as it will **cut down the use of conventional urea up to 50%**.
- While **conventional urea** has an **efficiency of about 25 per cent**, the **efficiency of liquid nano urea can be as high as 85-90 per cent**.
- Conventional urea fails to have the desired impact on crops as it is often **applied incorrectly**, and the nitrogen in it is vaporised or lost as gas. A lot of nitrogen is also **washed away during irrigation**.
- **Statement 3 is correct:** Liquid nano urea is **sprayed directly on the leaves and gets absorbed** by the plant. Unutilized nitrogen is stored in the plant vacuole and is slowly released for proper growth and development of the plant.
- Thus, Nano fertilizer releases plant nutrients in a controlled manner contributing to higher nutrient use efficiency.
- It will also help in **direct savings, reduce transportation costs, and make storage much easier**.

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Self-Reliance in Production

- India is the **second-largest consumer and the third-largest producer of urea** in the world. The country annually consumes around 33 million tonnes of urea, of which almost **70% is domestically produced, while the rest is imported from other countries.**
- India is hoping to end its reliance on imported urea by increasing the production of nano urea.

4. Answer: A

Explanation:

- **Statement 1 is correct:** The Mekong River, a trans boundary river, originates high in the **Tibetan plateau** and passes through **six countries:** China, Myanmar, Thailand, Laos, Cambodia and Vietnam.
- It is the longest river in Southeast Asia, the 7th longest in Asia, and the 12th longest in the world. It has a length of about 2,700 miles (4,350 km).
- Rising in **Lasagongma Spring** which is in the plateaus of Tibet, it flows through the eastern part of the Tibet Autonomous Region and Yunnan province, after which it forms part of the international border between Myanmar (Burma) and Laos, as well as between Laos and Thailand.
- **Statement 2 is incorrect:** The river then flows through Laos, Cambodia, and Vietnam before draining into the **South China Sea** south of Ho Chi Minh City (formerly Saigon).
- About three-fourths of the drainage area of the Mekong lies within the four countries the river traverses on its lower course—**Laos, Thailand, Cambodia, and Vietnam.**



5. Answer: D

Explanation:

- Repo rate is the rate of interest which is applied by RBI to commercial banks when the latter borrows from RBI. Repo rate is used to control inflation.
- In the event of rising inflation, RBI increases the repo rate which will act as a disincentive for banks to borrow from the central bank. This ultimately reduces the money supply in the economy and thus helps in arresting inflation.
- Similarly, if it wants to make it cheaper for banks to borrow money, it reduces the repo rate.