

**Q: Consider the following statement regarding Sarcophagus:**

1. It is an above-ground stone container for a coffin or dead body that often is often decorated with art.
2. The word sarcophagus literally translates as "eater of flesh."
3. First used in India.

Choose the correct option from the codes given below:

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

Ans: a

Explanation:

- Sarcophagus is an above-ground stone container for a coffin or dead body that often is often decorated with art, inscriptions, and carvings.
- The word sarcophagus comes from the Greek "sarx" meaning "flesh," and "phagien" meaning "to eat," so that sarcophagus literally translates as "eater of flesh."
- First used in Ancient Egypt and Ancient Greece, the sarcophagus gradually became popular throughout the ancient world.
- It carried over through the later years of European society, often used for high status members of the clergy, government, or aristocracy.

**Q: Consider the following statement regarding Polyethylene Terephthalate (PET):**

1. It cannot be recyclable.
2. It exhibits excellent electrical insulating properties.
3. It has good gas and moisture barrier properties.

Choose the correct option from the codes given below:

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

Ans: b

Explanation:

- Polyethylene Terephthalate (PET) is highly flexible, colorless and semi-crystalline resin in its natural state.
- It shows good dimensional stability, resistance to impact, moisture, alcohols and solvents.
- It exhibits excellent electrical insulating properties.
- It is very lightweight, which reduces transportation costs.
- It has good gas (oxygen, carbon dioxide) and moisture barrier properties.
- It is recyclable. It can be commercially recycled by thorough washing and re-melting, or by chemically breaking it down to its component materials to make new PET resin.

**Q: Consider the following statement regarding Sweet Crude:**

1. It refers to crude oil that contain very low amounts of sulfur.
2. Sulfur is undesirable in crude oils because it lowers the yield of high-value refined products.

Choose the correct option from the codes given below:

- a) 1 Only
- b) 2 Only
- c) 1 and 2
- d) None of the above

Ans: c

Explanation:

- Sweet Crude refers to crude oil that is extracted that is found to contain very low amounts of sulfur.
- Sulfur is undesirable in crude oils because it lowers the yield of high-value refined products, including gasoline and plastics.

**Q: Consider the following statement regarding India Post Payments Bank (IPPB):**

1. It was established with 100% equity owned by the Government of India.
2. A payments bank is like any other bank but operates on a smaller scale without involving any credit risk.
3. It was set up on the recommendations of the Nachiket Mor Committee.

Choose the correct option from the codes given below:

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

Ans: d

Explanation:

- India Post Payments Bank (IPPB) has been established under the Department of Posts, Ministry of Communication, with 100% equity owned by the Government of India.
- IPPB was launched on September 1, 2018, aimed at making banking services available at people's doorstep.
- A payments bank is like any other bank but operates on a smaller scale without involving any credit risk.
- It was set up on the recommendations of the Nachiket Mor Committee.
- Widen the spread of payment and financial services to small businesses, low-income households, and migrant labor workforce in a secured technology-driven environment.
- They are registered under the Companies Act 2013 but are governed by a host of legislations such as the Banking Regulation Act, 1949; RBI Act, 1934; Foreign Exchange Management Act, 1999, etc.

**Q: Consider the following statement regarding Circular RNA:**

1. It plays a pivotal role in regulating gene expression and is essential for various biological processes.
2. Characterizing circular RNA can be tricky because it usually is less abundant.
3. Circular RNA are straight-chain, free-end structures.

Choose the correct option from the codes given below:

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

Ans: a

Explanation:

- Ribonucleic acid is a molecule in living cells that carries genetic information and helps in the production of proteins.
- RNAs are in general straight-chain, free-end structures but these circular RNA ('circRNA') forms a closed-loop.
- The circRNA plays a pivotal role in regulating gene expression and is essential for various biological processes.
- Its role in HIV-1 replication has remained unclear for a long time.
- Characterizing circular RNA can be tricky because it usually is less abundant, making it further challenging to detect in the native form.
- During viral infections, there's so much information from the virus that it can make it hard to find the less common ones like circular RNA.