

**Q: Consider the following statement regarding Anti-Pee Paint:**

1. The paint uses an omniphobic technology.
2. It is mostly made up of acetone and silica.
3. The superhydrophobic coating keeps objects Wet.

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:

- Anti-Pee Paint is mostly made up of acetone and silica with the major constituent being sand.
- The superhydrophobic coating keeps objects dry and is capable of repelling almost every liquid that is thrown on it.
- The paint uses an omniphobic technology to coat an object and create surface chemistry and texture with patterns of geometric shapes that have peaks or high points.
- These high points repel water, some oils, wet concrete, and other liquids.

**Q: Consider the following statement regarding Green Bond:**

1. It is issued by RBI.
2. It has emerged as an important financial instrument to deal with the threats of climate change and related challenges.
3. It's critical to connect environmental projects with capital markets.

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:

- Green bonds are bonds issued by any sovereign entity, inter-governmental groups or alliances and corporates with the aim that the proceeds of the bonds are utilised for projects classified as environmentally sustainable.
- The framework for the sovereign green bond was issued by the government on November 9, 2022.
- The RBI is auctioning two green bonds with tenures of 5 and 10 years, worth Rs 4,000 crore each.
- Over the last few years, Green Bonds have emerged as an important financial instrument to deal with the threats of climate change and related challenges.
- The climate change threatens communities and economies, and it poses risks for agriculture, food, and water supplies. A lot of financing is needed to address these challenges.
- It's critical to connect environmental projects with capital markets and investors and channel capital towards sustainable development and Green Bonds are a way to make that connection.

**Q: Consider the following statement regarding Indus Water Treaty:**

1. The treaty lays down terms of distribution of Indus waters for agriculture and other economic activities for both north India and Pakistan.
2. It allocated the three western rivers; Indus, Chenab and Jhelum to Pakistan

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:

- The Indus Waters Treaty was signed in 1960 between India and Pakistan and is often cited as one of the most successful international treaties in South Asia which has endured wars and tension between India and Pakistan.
- The treaty lays down terms of distribution of the waters of the Indus and its tributaries that support agriculture and other economic activities of both north India and Pakistan.
- It allocated the three western rivers; Indus, Chenab and Jhelum to Pakistan for unrestricted use, barring certain non-consumptive, agricultural and domestic uses by India and the three Eastern Rivers; Ravi, Beas and Sutlej were allocated to India for unrestricted usage.

**Q: Consider the following statement:**

1. iNNCOVACC is world's first and India's indigenously developed DNA based vaccine for Covid-19.
2. ZyCoV-Dis the world's first intranasal COVID19 vaccine.

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: d

Explanation:

- iNNCOVACC is the world's first intranasal COVID19 vaccine to receive approval for the primary 2-dose schedule, and as a heterologous booster dose.
- It is developed by Bharat Biotech International Limited (BBIL) in collaboration with Biotechnology Industry Research Assistance (BIRAC), a PSU under the Dept of Biotechnology, Ministry of Science and Technology.
- ZyCoV-D, the world's first and India's indigenously developed DNA based vaccine for Covid-19 to be administered in humans including children and adults 12 years and above, was also developed in partnership with the Department of Biotechnology in the Ministry of Science & Technology under 'Mission Covid Suraksha' through BIRAC.

**Q: Consider the following statement regarding Amazon rainforest:**

1. Modern agricultural and industrial activities are deteriorating Amazonian habitats.
2. It provides global ecosystem services that help to regulate the planet's carbon and water cycles.
3. It supports almost two-third of all known species.

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:

- The Amazon rainforest is one of the most important yet endangered main ecosystems on the planet.
- It supports almost one-third of all known species and provides critical global ecosystem services that help regulate the planet's carbon and water cycles.
- However, modern agricultural and industrial activities, as well as broader anthropogenic climate change, are deteriorating Amazonian habitats at an unprecedented rate.
- Fluctuating on the brink of irreversible change, continuous forest loss threatens to drive the Amazon above a crucial threshold, with far-reaching consequences for the entire Earth system.