

Q: Recently Nepal and India have inked an agreement to increase the power import and export capacity. Consider the following:

1. Tanakpur-Mahendranagar
2. Butwal-Gorakhpur transmission line
3. Baharampur-Bheramara

Which among the following is the proposed transmission line to be set up between India and Nepal?

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

Ans: a

Explanation:

- An agreement to import and export 70 to 80 MW of electricity from Tanakpur-Mahendranagar 132 KV (kilovolt) power transmission was also signed between the two sides.
- A joint technical team will study possible options for exporting up to 200 megawatts of electricity as well.
- It has also been agreed to set up the necessary mechanisms to export power from Nepal to Bihar during the rainy season through the existing 132 KV transmission line.
- Both the parties agreed on the early completion of the construction work of the Indian section of the 400 KV new Butwal-Gorakhpur transmission line as the second international transmission line by March 2025.
- It was also agreed to build two additional 400 KV capacity international transmission lines between the two countries, including the Inaruwa-Poornia transmission line by 2027/28 and the New Lamki-Bareli transmission line by 2028-29.

Q: Consider the following statement regarding Teja Variety of Red Chilli:

1. Chittoor district in Andhra Pradesh is the largest producer of this variety.
2. The huge demand for oleoresin, a natural chilli extract from this variety.
3. The paste extracted from the pungent fruit is also in demand for its use as a protective layer beneath ships.

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:

- Khammam district, the largest producer of the Teja variety of red chilli, is the leading exporter of the pungent produce, which is known not only for its culinary purpose to spice up various delicacies but also as a main ingredient in making pepper spray.
- The huge demand for oleoresin, a natural chilli extract, is mainly driving the export of the Teja variety of red chilli from Khammam district to various spice processing industries in several Asian countries.
- The Mudigonda-based oleoresin extraction firm of a Chinese company is engaged in export of the byproduct to its clients.
- The paste extracted from the pungent fruit is also in demand for its use as a protective layer beneath ships in some of the Asian countries.

Q: Consider the following statement regarding Uroosi:

1. It is a Mughal-era home architectural element.
2. It is believed to be a Persian term meaning 'hidden bride'.

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:

- Uroosi, a Mughal-era home architectural element, is one such. Uroosis are wooden shutters used as partition walls within homes, instead of concrete walls.
- In Uroosi, wooden shutters could be rolled up to make one room, or rolled down from hanging grooves in ceiling chambers, to partition the space into separate areas.

- Uroosi work includes octagonal and decagonal ornamental pillars too. Jalali House is a landmark in Srinagar that has this architectural element.
- Uroosi is believed to be a Persian term meaning 'hidden bride'.

Q: Consider the following statement regarding Sickle Cell Anaemia:

1. Haemoglobin which is tasked with carrying oxygen to all parts of the body.
2. It is common among Tribal population.
3. SCA is prevalent in communities residing in areas where malaria is endemic.

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:

- Haemoglobin which is tasked with **carrying oxygen to all parts of the body**, has **four protein subunits**, two alpha and two beta.
- In some people, mutations in the gene that creates the beta subunits impact the shape of the blood cell and distorts it to look like a sickle.
- Research and screening programmes have found that the prevalence of haemoglobinopathies, disorders of the blood, is **more common among tribal populations** than non-tribal communities in India.
- Research has shown that SCA is prevalent in communities residing in areas where malaria is endemic. Around the middle 1940s, doctors found that those with sickle red blood cells were more likely to survive malaria.

Q: Consider the following statement regarding PM KUSUM:

1. It aims to help farmers access reliable daytime solar power for irrigation.
2. is one of the largest initiatives of the world to provide clean energy.
3. The Ministry responsible for this scheme is Ministry of Trade and Commerce.

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 Pradhan Mantri Kisan Urja Suraksha evam Uttham Mahabhiyan (PM KUSUM) scheme, which aims to help farmers access reliable daytime solar power for irrigation, reduce power subsidies, and thereby decarbonise agriculture, was behind schedule because of the "high cost of finance" for farmers.
- Under the scheme, ₹34,422 crore is to be spent by the Centre to have farmers or farmer groups install 10,000-MW solar power plants, installation of 20-lakh solar-powered agriculture pumps that are not connected to the grid (off-grid), and converting 15 lakh agriculture pumps that are already connected to the grid into solar-powered pumps.
- As of December 31, 2022 only 88.46 MW of solar capacity had been added, 181,058 solar pumps had been installed, and 1,174 grid-connected pumps had been converted. The deadline for the scheme has been shifted to 2026.
- The Ministry responsible for this scheme is the New and Renewable Energy Ministry.
- PM-KUSUM scheme is one of the largest initiatives of the world to provide clean energy to more than 35 lakhs farmers by solarising their agriculture pump