

Q: Consider the following statement regarding Manas National Park:

1. It is a national park, UNESCO Natural World Heritage site, a Project Tiger reserve, an elephant reserve and a biosphere reserve.
2. It contains some of the largest remaining grassland habitats in the sub-Himalayan grassland ecosystems.
3. The Park is known for its rare and vulnerable wildlife such as the Assam roofed turtle and hispid hare.

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:

- Manas National Park is located in the foothills of Himalayas in Assam. It is contiguous with the Royal Manas National Park in Bhutan.
- It is a national park, UNESCO Natural World Heritage site, a Project Tiger reserve, an elephant reserve and a biosphere reserve.
- It contains some of the largest remaining grassland habitats in the sub-Himalayan grassland ecosystems.
- The Park is known for its rare and endangered endemic wildlife such as the Assam roofed turtle, hispid hare, golden langur and pygmy hog.
- The name of the park originates from the Manas River, which is named after the serpent goddess Manasa.
- The Manas River is a major tributary of Brahmaputra River, which passes through the Manas National Park.

Q: Consider the following statement regarding Clouded leopard:

1. It is listed as critically endangered animal by IUCN.
2. The mainland clouded leopard distributed from central Nepal to peninsular Malaysia.
3. The Sunda clouded leopard is native to Borneo and Sumatra.

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:

- Clouded leopard is a wild cat inhabiting dense forests of the Himalayas through mainland Southeast Asia into South China.
- The clouded leopard is categorised into two species: the mainland clouded leopard distributed from central Nepal to peninsular Malaysia, and the Sunda clouded leopard (*Neofelis diardi*) native to Borneo and Sumatra.
- The mainland clouded leopard (*Neofelis nebulosa*) is often likened to the Ice Age sabretooth because it has the largest canines in proportion to its skull size among all cat species.
- It also has rotating rear ankles that enable it to climb down head first from trees, unlike the other felines.
- They seemed to go wherever they pleased without worrying about other predators, primarily because of their ability to climb trees, even hang upside down from large branches.
- It is listed as vulnerable animal by IUCN.

Q: Consider the following statement regarding Bhu-Vision:

1. This system seamlessly conducts 12 key soil parameter tests.
2. It provides quick and accurate results directly to farmers and stakeholders through a soil health card.

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:

- Bhu-Vision is also known as KRISHI-RASTAA Soil Testing System.
- It has been jointly developed by ICAR-IIRR(Indian Council of Agricultural Research -Indian Institute of Rice Research) and KrishiTantra.
- This system seamlessly conducts 12 key soil parameter tests in just 30 minutes.
- It provides quick and accurate results directly to farmers and stakeholders through a soil health card on their mobile devices.

Q: Consider the following statement regarding India sorghum:

1. It is especially valued in hot and arid regions.
2. It is tolerant to drought because of its root system
3. It is tolerant of salinity and to some extent to waterlogging for a short period.

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:

- In India sorghum is known as jowar, cholam, or Jonna. Different varieties of sorghum range in colour from white and pale yellow to deep red, purple and brown.
- Sorghum is especially valued in hot and arid regions for its resistance to drought and heat.
- It is tolerant to drought because of its root system.
- It performs better than maize during drought and occupies areas unsuitable for maize in stress-prone semiarid areas.
- It is tolerant of salinity and to some extent to waterlogging for a short period. It is sensitive to frost and to sustain flooding.
- In recent years, there has been a shift in sorghum production from the drier western production areas to the wetter eastern

Q: Consider the following statement regarding Active Pharmaceutical Ingredients (APIs):

1. These are the active components in a pharmaceutical drug that produces the required effect on the body to treat a condition.
2. In a biologic drug, the active ingredient is known as a bulk process intermediate (BPI).
3. APIs are produced by processing physical compounds.

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:

- Active Pharmaceutical Ingredients (APIs) are the active components in a pharmaceutical drug that produces the required effect on the body to treat a condition.
- APIs are produced by processing chemical compounds.

- In a biologic drug, the active ingredient is known as a bulk process intermediate (BPI).
- In the context of drug development and manufacturing, APIs are the key active components that interact with specific receptors or target molecules in the body to bring about the desired physiological or therapeutic response
- All drugs are made up of two core components: (1) Active Pharmaceutical Ingredient (API), which is the central ingredient, and (2) excipients.