

July 30, 2019

**Q.1) Consider the following statements with respect to 'Red Mud'**

1. It is a waste product of refining bauxite en route to alumina.
2. It is highly acidic in nature causing environmental hazards.

**Select the correct statements**

- a) 1 Only
- b) 2 Only
- c) Both 1 and 2
- d) Neither 1 nor 2

**Q.1) Solution (a)**

Bauxite tailings, also known as red mud, red sludge, bauxite residue, or alumina refinery residues (ARR), is a highly alkaline waste product composed mainly of iron oxide that is generated in the industrial production of alumina (aluminium oxide, the principal raw material used in the manufacture of aluminium metal and also widely used in the manufacture of ceramics, abrasives and refractories).

Over 95% of the alumina produced globally is through the Bayer process; for every tonne of alumina produced, approximately 1 to 1.5 tonnes of bauxite tailings/residue are also produced.

Red mud is composed of a mixture of solid and metallic oxides. The red colour arises from iron oxides, which comprise up to 60% of the mass. The mud is highly basic with a pH ranging from 10 to 13. In addition to iron, the other dominant components include silica, unleached residual alumina, and titanium oxide.

Source: <http://pib.nic.in/newsite/PrintRelease.aspx?relid=192330>

**Q.2) 'Shahab-3', is a Medium-Range Ballistic Missile by**

- a) Iran
- b) North Korea
- c) Syria
- d) Afghanistan

**Q.2) Solution (a)**

July 30, 2019

It is a liquid-fueled, medium-range ballistic missile capable of carrying a nuclear weapon. It is backbone of Iran's class of medium-range missiles. It is derived from a North Korean missile called Nodong-A.

**Q.3) 'Dracaena cambodiana', a plant which yields a bright red resin was discovered in**

- a) Assam
- b) Andaman and Nicobar Islands
- c) Kerala
- d) Himachal Pradesh

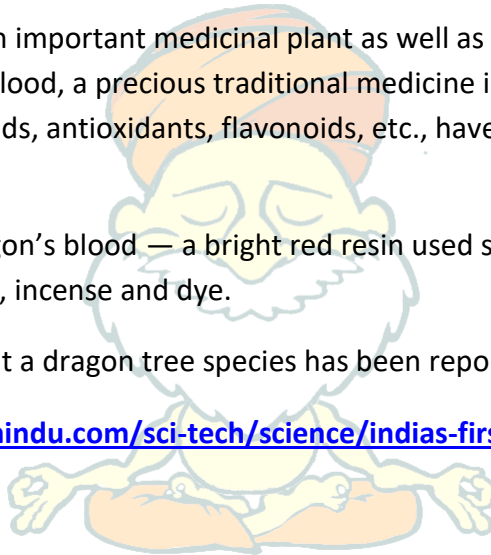
**Q.3) Solution (a)**

Dracaena cambodiana is an important medicinal plant as well as an ornamental tree. It is a major source of dragon's blood, a precious traditional medicine in China. Several antifungal and antibacterial compounds, antioxidants, flavonoids, etc., have been extracted from various parts of the plant.

It is a plant that yields dragon's blood — a bright red resin used since ancient times as medicine, body oil, varnish, incense and dye.

This is for the first time that a dragon tree species has been reported from India.

Source: <https://www.thehindu.com/sci-tech/science/indias-first-dragon-blood-oozing-tree/article28701517.ece>



**Q.4) 'Shendurney Wildlife Sanctuary', is located in**

- a) Tamil Nadu
- b) Kerala
- c) Maharashtra
- d) Andhra Pradesh

**Q.4) Solution (b)**

Shendurney Wildlife Sanctuary is a protected area in the Western Ghats. It is located in Kollam district of Kerala and comes under the control of Agasthyamalai Biosphere Reserve.

July 30, 2019

Q.5) \_\_\_\_\_ is the first species to be officially declared threatened due to deep-sea mining.

- a) Sea Pangolin
- b) Vaquita
- c) Humpback Whale
- d) Narwhal

**Q.5) Solution (a)**

Scaly-foot Gastropod or Scaly-foot Snail, also known as Sea Pangolin, is a species of deep-sea hydrothermal-vent snail, a marine gastropod mollusc in the family Peltospiridae.

This vent-endemic gastropod is known only from deep-sea hydrothermal vents in the Indian Ocean, where it has been found at depths of about 2,400–2,800 m (1.5–1.7 mi).

Chrysomallon squamiferum differs greatly from other deep-sea gastropods, even the closely related neomphalines.

In 2019, it was declared Endangered on the IUCN Red List, the first species to be listed as such due to risks from deep-sea mining of its vent habitat that also produce high-quality metal ores.

Source: <https://www.downtoearth.org.in/news/wildlife-biodiversity/this-indian-ocean-snail-species-may-be-first-victim-of-deep-sea-mining-65799>

