

Q: Consider the following statement regarding Umiam Lake:

1. The lake was formed after a dam was constructed to generate hydroelectric power.
2. The confluence of the two streams, Umkhrah and Umshvrpi were the main source of water for the lake.
3. It is one of the biggest artificial lakes in Mizoram.

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:

- Umiam Lake is one of the biggest artificial lakes in Meghalaya, spread over an area of 10 square km.
- The lake was formed after a dam was constructed to generate hydroelectric power in 1965.
- The dam was a part of northeast India's first hydel power project called the Umiam Umtru Hydroelectric Power Project.
- The confluence of the two streams, Umkhrah and Umshvrpi, form the Wah Ro-ro stream in the northwest of the town and joins River Umiam, the main source of water for the lake.
- It is a popular venue for water sports and adventure facilities.

Q: Consider the following statement regarding Patulin:

1. It is a toxic mycotoxin produced by several types of bacteria.
2. It can grow on damaged or decaying fruits, especially apples.
3. It is responsible for a wide variety of health hazards, including lung congestion, ulcers and intestinal haemorrhages.

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:

- Patulin (C₇H₆O₄) is a toxic mycotoxin produced by several types of fungi.
- It is harmful to a wide range of creatures, including humans, mammals, plants, and microbes.
- It can grow on damaged or decaying fruits, especially apples.
- It is responsible for a wide variety of health hazards, including nausea, lung congestion, ulcers, intestinal haemorrhages, and even more serious outcomes—such as DNA damage, immunosuppression and increased cancer risk.

Q: Consider the following statement regarding Stem Cell:

1. These are cells from which all other cells are generated.
2. Pluripotent stem cells and Adult stem cells are main categories of Stem Cell.

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:

- Stem cells are cells from which all other cells, with their respective specialised functions, are generated.

- The human body, under certain conditions, “divides” stem cells to either create new stem cells or cells with specific functions, such as blood cells, brain cells, bone cells, muscle cells, etc.
- There are two main categories of stem cells:
 - ❖ Pluripotent stem cells: With the ability to differentiate into all of the cells of the adult body.
 - ❖ Adult stem cells: These are tissue or organ-specific and regenerate to form cells only of that particular organ.

Q: Consider the following statement regarding Pulikkali:

1. It is one of the folk art forms of Kerala.
2. The main theme of this folk art is tiger hunting.
3. Thakil, Udukku and Chenda are the instrument of this folk dance.

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:

- Pulikkali (Tiger Dance) is one of the folk art forms of Kerala.
- On the fourth day of the Onam festival, artists paint their bodies like tigers with stripes of yellow, red and black and dance to the rhythm of traditional percussion instruments such as thakil, udukku and chenda.
- The Swaraj Ground in Thrissur district plays host to this carnival that has people appearing in various unique hues and masks.
- The main theme of this folk art is tiger hunting, with participants playing the role of tiger and hunter.
- It was introduced by the erstwhile ruler of Cochin, Maharaja Rama Varma Sakthan Thampuran.

Q: Consider the following statement regarding Preeclampsia:

1. It is a serious blood pressure condition that develops during pregnancy.
2. It typically develops after the 20th week of pregnancy.
3. People with preeclampsia often have low blood pressure and low levels of protein in their urine.

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:

- Preeclampsia is a serious blood pressure condition that develops during pregnancy.
- It typically develops after the 20th week of pregnancy.
- It can also affect other organs in the body and be dangerous for both the mother and her developing fetus.
- Symptoms:
 - People with preeclampsia often have high blood pressure (hypertension) and high levels of protein in their urine (proteinuria).
 - Changes in vision, including temporary loss of vision, blurred vision or light sensitivity