

Q: Consider the following statement regarding how US Federal Reserve Interest Hike Impact Indian Economy

1. It affects the currency trade negatively.
2. Foreign investors will be tempted to withdraw from the Indian market.
3. An interest rate hike in the US decreases the relative returns on dollar investments.

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:

Possible impacts on the Indian Economy:

- After a rate hike by the US Fed, the difference between interest rates in US and India shrinks, which affects the currency trade negatively.
- Foreign investors will be tempted to withdraw from the Indian market and invest in US assets, as the Dollar and the US Treasury yield become more attractive in the US and the Indian market begins to see capital outflow.
- Thus, an interest rate hike in the US increases the relative returns on dollar investments, leading the US currency to strengthen.
- This makes the rupee weaker, and it prompts RBI for a rate hike in India.

Q: Consider the following statement regarding Gulf Stream:

1. It is cold ocean current.
2. It originates in the Gulf of Mexico.
3. It follows a north-eastward path across the western North Atlantic Ocean.

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:

- The Gulf Stream is a swift and warm ocean current that flows along the eastern coast of North America and crosses the Atlantic Ocean towards Europe.
- Key characteristics:
- It originates in the Gulf of Mexico and is primarily formed by the convergence of warm waters from the Caribbean Sea and the Gulf of Mexico. It then travels northward along the eastern coast of the United States.
- It follows a north-eastward path across the western North Atlantic Ocean.

Q: Consider the following statement regarding Conjunctivitis:

1. When small blood vessels in the conjunctiva become swollen and irritated, they're more visible.
2. It can be caused by viruses, bacteria or by allergies.

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:

- Conjunctivitis, commonly known as Pink Eye, is an infection or inflammation of the transparent membrane that covers the eyelid and eyeball. This membrane is called the conjunctiva.
- When small blood vessels in the conjunctiva become swollen and irritated, they're more visible.
- This is what causes the whites of the eyes to appear reddish or pink.
- It can be caused by viruses, bacteria or by allergies.
- Both bacterial and viral conjunctivitis are highly contagious, while allergic conjunctivitis is not.

Q: Consider the following statement regarding Hematene:

1. It is extracted from naturally occurring hematite.
2. It has a more efficient photocatalysis.
3. It is capable of withstanding and acting as shield from high laser intensities.

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:

- Hematene is extracted from naturally occurring hematite, the mineral form of iron(III) oxide, using a combination of sonication, centrifugation and vacuum-assisted filtration.
- It measures 3 atoms thick and has a more efficient photocatalysis.
- It is ferromagnetic (the mechanism by which certain materials like iron form permanent magnets, or are attracted to magnets) like a common magnet.
- It is capable of withstanding and acting as shield from high laser intensities

Q: Consider the following statement regarding Seagrass:

1. It is flowering plant that grows submerged in shallow marine waters like bays and lagoons.
2. Seagrasses have roots, stems, and leaves and produce flowers and seeds.
3. They are found in Antarctica also.

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:

- Seagrass is flowering plant that grows submerged in shallow marine waters like bays and lagoons.
- They are so-named because most species have long green, grass-like leaves.
- Seagrasses have roots, stems, and leaves and produce flowers and seeds.
- Like terrestrial plants, seagrass also photosynthesizes and manufactures their own food and releases oxygen.
- They evolved around 100 million years ago, and there are approximately 72 different seagrass species that belong to four major groups.
- They are found on all continents except Antarctica.