

**Q: Consider the following statement regarding Black Carbon:**

1. It is produced by the incomplete combustion of fossil fuels and biomass.
2. It directly affected the Himalayan Glaciers.

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: a

Explanation:

- Black carbon aerosols have **indirectly affected the mass gain of the Tibetan Plateau glaciers** by changing long-range water vapour transport from the South Asian monsoon region, a study has found.
- Black carbon aerosols are produced by the incomplete combustion of fossil fuels and biomass, and are characterised by strong light absorption.
- Many studies have emphasised black carbon aerosols from South Asia can be transported across the Himalayas to the inland region of the Tibetan Plateau.

**Q: Consider the following statement regarding National Commission for Minorities:**

1. Muslims, Christians, Sikhs and Buddhists have been notified in Gazette of India as minority communities.
2. It was set up under the National Commission for Minorities Act, 1992.
3. It monitors the working of the safeguards for minorities provided in the Constitution.

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:

- National Commission for Minorities (NCM) was set up under the National Commission for Minorities Act, 1992.
- It monitors the working of the safeguards for minorities provided in the Constitution and in laws enacted by Parliament and the state legislatures.
- Six religious communities, viz; Muslims, Christians, Sikhs, Buddhists, Zoroastrians (Parsis) and Jains have been notified in Gazette of India as minority communities by the Union Government all over India.

**Q: Consider the following statement:**

1. SMART programme aimed to boost scientific research in priority healthcare research areas through Ayurveda colleges.
2. SMART programme was launched by the National Commission for Indian System of Medicine (NCISM) and the Central Council for Research in Ayurvedic Sciences (CCRAS).

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:

- Recently, 'SMART' (Scope for Mainstreaming Ayurveda Research in Teaching Professionals) program aimed to boost scientific research in priority healthcare research areas through Ayurveda colleges and hospitals was launched.
- It was launched by the National Commission for Indian System of Medicine (NCISM) and the Central Council for Research in Ayurvedic Sciences (CCRAS), the two prominent institutions under the Ministry of Ayush.

**Q: Consider the following statement regarding Samed Shikharji:**

1. It is located on Mount Abu.
2. The pilgrimage site is important for Digambara sect only.

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: d

Explanation:

- Sammed Shikharji is located on Parasnath Hills in Jharkhand's Giridih district, Shri Sammed Shikharji is considered one of the most sacred shrines of Jains.
- The state government's decision to use it to boost religious tourism has not gone down well with the community, which believes it will impact the sanctity of the site.
- The pilgrimage site is important for both the Digambara and Svetambara sects as 20 out of 24 Jain Tirthankaras along with monks attained moksha in the place.

**Q: Consider the following statement regarding XBB.1.5:**

1. It is a recombinant.
2. Recombinant strains also arise when existing recombinant strains mutate.

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:

- XBB.1.5 is a recombinant, which means its genome is the product of the genomes of two different strains spliced together. This can happen when two strains infect a person at the same time; a recombinant variant is produced as they replicate together.
- Recombinant strains also arise when existing recombinant strains mutate. Previous recombinants include XD (Delta + Omicron), XE (BA.1 + BA.2), and XBB (BA.2.10.1 + BA.2.75). The XBB strain is descended from BA.2.10.1.1 and BA.2.75.3.1.1.1.
- It mutated further and became XBB.1.5. XBB.1, which also descended from XBB, accounted for 14% of new cases in India around mid-December 2022.