

- **Screening:** The project plan is screened for statutory clearance if needed, the scale of investment, type of development, and location.
- **Scoping:** The potential impacts and mitigation possibilities in zones of impact along with the need for monitoring.
- **Collection of baseline data.**
- **Impact prediction:** Impacts of all kinds-Positive and negative, reversible and irreversible, and temporary and permanent are predicted.
- **Mitigation measures and EIA report:** It includes the actions and steps for preventing, minimizing the impacts
- **Public hearing:** Public and environmental groups living close to the project site may be informed and consulted on the completion of the EIA report.
- **Decision making:** Experts along with Impact Assessment Authority take the final decision.
- **Monitoring and implementation of environmental management plan:** The various phases of implementation of the project are monitored.
- **Assessment of Alternatives, Delineation of Mitigation Measures:** For every project, possible alternatives should be identified, and environmental attributes compared.
- **Risk assessment:** Inventory analysis and hazard probability and index also form part of EIA procedures.

Q 5.A

- Ecological succession is the process that describes how the structure of a biological community (that is, an interacting group of various species in a desert, forest, grassland, marine environment, and so on) changes over time. There are two types of succession:
 - Primary Succession - Succession that begins in new habitats or lifeless areas that are uninfluenced by pre-existing communities.
 - Secondary Succession - Succession that follows the disruption of a pre-existing community that existed in the same ecosystem.
- The species that invade a bare area are called pioneer species.
- **Primary succession on rocks**
 - These are usually lichens which are able to secrete acids to dissolve rock, helping in weathering and soil formation.
 - These later pave the way for some very small plants like bryophytes, which are able to take hold in the small amount of soil. They are, with time, succeeded by higher plants, and after several more stages, ultimately a stable climax forest community is formed.
 - The climax community remains stable as long as the environment remains unchanged. With time the xerophytic habitat gets converted into a mesophytic one.
- **Primary succession in water**
 - **The pioneers are the small phytoplankton. Hence option 1 is correct.**
 - Phytoplanktons are **gradually replaced** with time by rooted-submerged plants, **rooted-floating angiosperms** followed by free-floating plants, **then reed-swamp, marsh-meadow**, scrub and finally the trees. **Hence, options 2, 3 and 4 are not correct.**
 - The climax again would be a forest. With time the water body is converted into land

Q 6.B

- The Himalayan Yak (*Bos grunniens*) is a long-haired domesticated cattle found throughout the Himalayan region of India.
- The increasing trend of temperature at high altitudes and heat stress in Himalayan Yak during warmer months of the year is resulting in frequent deaths of Himalayan Yak which is also causing a financial burden on yak owners.
- **The countrywide population trend also shows that the Yak population has been decreasing at an alarming rate. As per the 20th livestock census, the Yak population is just 58,000 down from around 80,000 in 2012. Hence option (a) is not correct.**
- To arrest this trend, recently National Research Centre on Yak (NRCY) at Dirang in Arunachal Pradesh's West Kameng district has tied up with the National Insurance Company Ltd. for insuring this gentle giant and providing relief to the owners.
 - NRCY, was established in 1989 by the Indian Council of Agricultural Research.
- **Yak is accustomed to very cold temperatures and can survive up to minus 40 degrees but finds it difficult when the temperature crosses 13 degrees. Hence, option (b) is the correct answer.** Yak can