

Q1. Which of the following statement(s) are correct with respect to the cyanobacteria?

1. They are microscopic organisms found naturally in soils and also called blue-green algae.
2. These multi cellular organisms which makes their own food using photosynthesis.
3. They contain phycocyanin which they use to capture light for photosynthesis.

Choose the correct answer using the codes given below:

- (a) 1 and 2 only
- (b) 2 and 3 only
- (c) 1 and 3 only
- (d) 1, 2 and 3

Answer: C

Explanation:

**In News-** According to the investigation, toxins in water produced by cyanobacteria are behind the killing of more than 300 elephants in Botswana earlier this year.

**Statement 1 is correct:** Cyanobacteria are a group of photosynthetic bacteria, some of which are nitrogen-fixing. Cyanobacteria are microscopic organisms common in water and sometimes found in soil. They are also called blue-green algae.

**Statement 2 is not correct:** These single-celled organisms (bacteria) live in fresh, brackish (combined salt and freshwater), and marine water. In warm, nutrient-rich (high in phosphorus and nitrogen) environments, cyanobacteria can multiply quickly.

**Statement 3 is correct:** Cyanobacteria get their name from the bluish pigment phycocyanin, which they use to capture light for photosynthesis. They also contain 'chlorophyll a', the same photosynthetic pigment that plants use.

Q2. Consider the following statements:

1. The Bondas and Didiayis are found in the North Eastern region of India especially Assam and Meghalaya.
2. 75 tribal groups have been categorized as Particularly Vulnerable Tribal Groups (PVTG)s and Bondas and Didiayis are among them.
3. Particularly Vulnerable Tribal Groups (PVTG)s categorized on the recommendation of erstwhile Planning Commission.

Which of the statements given above is/are correct?

- (a) 1 and 2 only
- (b) 2 only
- (c) 1 and 3 only
- (d) 1, 2 and 3

Answer: B

Explanation:

**In News-** Six members of two Particularly Vulnerable Tribal Groups (Bondas and Didiayis) in Odisha contracted Covid-19. The the National Commission for Scheduled Tribes termed this as a “matter of grave concern”.

**Statement 1 is not correct:** The Bondas and Didiayis are found in the Malkangiri district of the Odisha state, which shares its border with Andhra Pradesh on the east and south and Chhattisgarh on the west. They are believed to have come to India as part of the first wave of migration out of Africa about 60,000 years ago. The Didayis – a little known Austro-Asiatic tribe – live in the immediate neighbourhood of the Bondas.

**Statement 2 is correct:** 75 tribal groups have been categorized by Ministry of Home Affairs as Particularly Vulnerable Tribal Groups (PVTG)s. PVTGs reside in 18 States and UT of A&N Islands. The Bondas and Didiayis are belong of the PVTGs category.

**Statement 3 is not correct:** A PVTG (earlier, Primitive tribal group) is a Government of India classification for tribes based on their relative physical isolation, stagnant or declining population, low levels of literacy and pre-agricultural stage of economy, such as hunting, food gathering, shifting cultivation and terrace cultivation. The classification was adopted by the GOI after the Dhebar Commission (1960-1961) stated that within the Scheduled Tribes there existed an inequality in the rate of development.

Q3. With reference to the Infrastructure Investment Trusts (InvITs), consider the following statements:

1. They enable the direct investment of money from individual/institutional investors in infrastructure.
2. They are regulated and overseen by the Reserve Bank of India.

Which of the statements given above is/are correct?

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

Answer: A

Explanation:

**In News-** Recently, the National Highways Authority of India (NHAI) has decided to use Infrastructure Investment Trust(s) (InvIT) as a vehicle for mobilising funds for constructing road infrastructure.

**Statement 1 is correct:** An Infrastructure Investment Trust (InvITs) is like a mutual fund, which enables direct investment of small amounts of money from possible individual/institutional investors in infrastructure to earn a small portion of the income as a return. InvITs work like mutual funds or real estate investment trusts (REITs) in features. InvITs can be treated as the modified version of REITs designed to suit the specific circumstances of the infrastructure sector.

**Statement 2 is not correct:** They are regulated by the Securities and Exchange Board of India. Their units are listed on different trading platforms like stock exchanges and are a wholesome combination of both equity and debt instruments. InvITs can be established as a trust and registered with Sebi. An InvIT consists of four elements: 1) Trustee, 2) Sponsor(s), 3) Investment Manager and 4) Project Manager.

Q4. O-SMART Scheme was in the news, the scheme is related to which of the following area?

- (a) Robusting Military surveillance on the border areas.
- (b) Oceanic research and early weather warning system.
- (c) Analysing the Big Data in Disaster Mangement.
- (d) For incentivising the renewable energy startups.

Answer: B

**In News-** The Union Ministry of Earth Sciences has informed about the progress of O-SMART Scheme.

**Option B is correct:** O-SMART stands for – Ocean Services, Modelling, Applications, Resources and Technology scheme. It aims at stepping up ocean research and setting up early warning weather systems. The services rendered under the O-SMART will provide economic benefits to a number of user communities in the coastal and ocean sectors, namely, fisheries, offshore industry, coastal states, Defence, Shipping, Ports etc. It seeks to address issues relating to SDG-14, which aims to conserve the use of oceans, marine resources for sustainable development. It also provides the necessary scientific and technological background required for the implementation of various aspects of Blue Economy.

Q5. With reference to the Central Vigilance Commission(CVC), consider the following statements:

1. It consists of a Central Vigilance Commissioner and not more than two vigilance commissioners.
2. They are appointed by the President at the recommendation of the PM, Union Minister of Home Affairs and Leader of Opposition of the Lok Sabha.
3. The office terms of the members are five years or sixty-four years of age, whichever is earlier.
4. The Central Vigilance Commission is a constitutional body.

Which of the statements given above are correct?

- (a) 1 and 2 only
- (b) 1, 2 and 3 only
- (c) 1, 3 and 4 only
- (d) 2, 3 and 4 only

Answer: A

Explanation:

**Statement 1 is correct:** The Central Vigilance Commission (CVC) is the main agency for

preventing corruption in the Central government. It is a multi-member body consisting of a Central Vigilance Commissioner (chairperson) and not more than two vigilance commissioners.

**Statement 2 is correct:** They are appointed by the president by warrant under his hand and seal on the recommendation of a three-member committee consisting of the prime minister as its head, the Union minister of home affairs and the Leader of the Opposition in the Lok Sabha.

**Statement 3 is incorrect:** They hold office for a term of four years or until they attain the age of sixty-five years, whichever is earlier. After their tenure, they are not eligible for further employment under the Central or a state government.

**Statement 4 is incorrect:** The CVC was set up by the Government in February 1964 on the recommendations of the Committee on Prevention of Corruption, headed by Shri K. Santhanam. In 2003, the Parliament enacted CVC Act conferring statutory status on the CVC. The CVC is not controlled by any Ministry/Department. It is an independent body which is only responsible to the Parliament.