

Environment & Ecology Expected Question

Set – 4



The advertisement features a vibrant, colorful background with a large '70% Off' text in the center. To the left, it says 'BIG HOLI SALE' with a 'VALID TILL 11TH MAR'20' banner. In the center, there's an illustration of Holi pots and a pendrive. Below the illustration, it says 'Pendrive & Android Course' and 'www.studyiq.com'. At the bottom, a phone number is provided: '9580048004, 7291059476'. On the right side, there's a list of courses offered, including Insurance, NABARD, UGC NET, UPSC, SSC & Bank, UPSC Opt., State PSC, Defence, SSC JE, Railway, Professional, RBI, GATE, RRB JE, DMRC, Teaching, and Law. The Study IQ logo is in the top right corner.

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Pendrive & Android Course

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New tortoise species found in India for the first time :-

- The first-ever sighting of the rare **Impressed Tortoise or Manouria impressa** will help to focus on turtle conservation in Northeast India
- IUCN Status - Vulnerable
- Found near Yazali of Lower Subansari district in Arunachal Pradesh
- When it comes to turtles, we are dealing with one of the most threatened, under-studied animals of the world, whom no one pays attention to, and hence sighting it first time is definitely huge

- The Impressed Tortoise measures one foot, and has a “brilliant spine” – bent upwards and beautifully serrated, it is impressive in colour and shape. That’s is why it’s called the Impressed Tortoise, in the first
- Previously, the little-known tortoise was believed to be restricted to western Myanmar, along with pockets of habitat in Thailand, Laos, Vietnam, Cambodia, and southern China, and south through Peninsular Malaysia.

Q) LEED Rating system is related to what?

A)Construction of green buildings

B)Vertical gardens

C)Renewable energy based gadgets

D)Forest cover in a city



- The LEED system is **Leadership in Energy and Environmental Design** is found to be one of the most popular green building certification that is used worldwide.
- The LEED system is developed by the U.S. Green Building Council (USGBC).
- The LEED rating system have a series of rating system for the design, operation, construction and the maintenance of the green buildings.
- Green buildings in India : Maharashtra, Karnataka tops the list.

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and answering the call, advancing sustainable, healthy and environmentally friendly buildings and working to raise the living standard for the people in their communities,” Padmanabhan said.

LEED is an international symbol of sustainability excellence that signifies a building is lowering carbon emissions, conserving resources and cutting costs, while prioritizing sustainable practices and creating a healthier environment, USGBC said in a release on Tuesday.

Buildings that are LEED-certified create healthier spaces for people, as well as use less energy and water, reduce air pollution, provide cleaner air indoors and save money for businesses and families. They also generate fewer emissions compared to traditional buildings — not only during the construction stage but also after they are occupied and throughout the entire lifecycle of a building, it said.

New Wasp Species :-

- Scientists have recently found a new species of wasp dubbed as **Kudakrumia Rangnekari** in Goa.
- Named after Parag Rangnekar, a Goa-based researcher.
- The new Wasp species was collected in the Western Ghats forests from **Cotigao Wildlife sanctuary**.
- **What is a Wasp?** - It is an insect of order Hymenoptera. Wasps are proficient at controlling pest populations

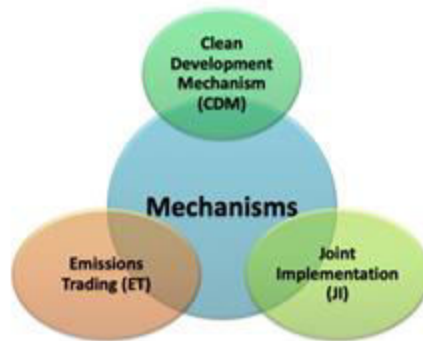
New Species of Dung Beetle :-

- A new Species of Dung Beetle named as **Enoplotrupes tawangensis** was found in Tawang, Arunachal
- It is Shining dark blue in colour.
- Dung beetles belong to the Insects super family scarabaeoidea, having clubbed antennae and pro-tibiae (pro-legs) modified for burrowing dung inside the soil.
- This group of insects are considered beneficial to the environment as they help in nutrient cycling of the soil, these scavenger beetles require mammalian dung to survive.
- It shows strong sexual dimorphism, with the fronto-clypeal horn shorter in females than males.
- Insects comprise almost 65% of all animal species on the planet. From India, approximately 65,000 species of insects are known, of them, more than 22,000 species are beetles.
- World Environment Day - June 5. Theme - Air Pollution.

Gujarat - world's first emissions trading system for particulate pollution :-

- It is a *market-based system* where the *government sets a cap on emissions* and *allows industries to buy and sell permits to stay below the cap*.
- Being *initiated in Surat* by the *Gujarat Pollution Control Board (GPCB)*.
- Gujarat programme is the *first in the world to regulate particulate air pollution*.
- Under the cap and trade system, **the regulator first defines the total mass of pollution that can be put into the air** over a defined period by all factories put together.
- Then, a set of permits is created, each of which allows a certain amount of pollution, and the total is equal to the
- These permits are the quantity that is bought and sold. Each factory is allocated a share of these permits (this could be equal or based on size or some other rule).
- After this, plants can trade permits with each other, just like any other commodity on the National Commodity and Derivatives Exchange Limited (NCDEX).

Mechanisms under the Kyoto Protocol



Q) Which of these is correctly matched?

1. First specialized water clinic for elephants – Mathura
2. First elephant rehabilitation center in India – Kerala
3. First elephant memorial in India - Agra

Options :

1. A & B
2. B & C
3. A & C
4. None of the three

- **Delhi Metro** became India's first project to receive power from waste-to-energy.
- Delhi Metro started receiving 2 MW power from a **12 MW capacity waste-to-energy plant set up in**
- The plant will mitigate over 8 million tons of Greenhouse Gases (GHG) over the life of the project
- The plant is **India's first Euro norms compliant** waste-to-energy facility.

The Union Ministry of Environment and Forests (MoEF) declared areas around these protected areas as eco-sensitive zone :-

- Asola Bhatti wildlife Sanctuary - Maharashtra

- Tungreshwar Wildlife Sanctuary (TWLS) - Maharashtra
- Tansa Wildlife Sanctuary (TWS) - Maharashtra
- Dal Lake – Maharashtra
- Biligiri Ranganathaswamy Tiger (BRT) Reserve – Karnataka
- Tipeshwar Wildlife Sanctuary – Maharashtra
- Bannerghatta National Park – Karnataka
- Dal Lake - Kashmir.
- The Environment Protection Act, 1986 does not mention the word “Eco-sensitive Zones”
- The section 3(2)(v) of the Act, says that Central Government can restrict areas in which any industries, operations or processes shall not be carried out or shall be carried out subject to certain safeguards
- The section 5 (1) of this act says that central government can prohibit or restrict the location of industries and carrying on certain operations or processes on the basis of considerations like the biological diversity of an area, maximum allowable limits of concentration of pollutants for an area, environmentally compatible land use, and proximity to protected areas.
- The above two clauses have been effectively used by the government to declare Eco-Sensitive Zones or Ecologically Fragile Areas (EFA).
- **Kasturirangan and Gadgil commission** on western Ghats recommended their creation to protect fragile and biodiverse rich regions.
- as no go areas they prevent local resource exploitation by locals hampering local/regional development
- e.g. Tribal and villagers in Western Ghats protest against Kasturirangan report recommendations restricting access to forest.
- The women sangams (groups) of the Deccan Development Society have bagged the **United Nation’s Equator Prize for 2019.**
- They have been selected for standing as ‘an outstanding example of a local, nature-based solution to climate change and sustainable development.’
- The women farmers, majority of them are Dalits, have been building their own seed banks and growing millets in the predominantly rain-fed villages of Sangareddy district.
- Equator Prize The award was established in 2002 It is awarded biennially by Equator Initiative of UNDP in recognition of community efforts to reduce poverty via conservation and sustainable use of biodiversity.

Q) Which is not correct

A) Bancha is the first solar kitchen only village in India

B) Amasebailu became the first village in Karnataka to have 100% solar powered houses

Options :

1. Both A & B are correct
2. Only A is correct
3. Only B is correct
4. Neither of the two is correct



Micryletta aishani :-

- Named Aishani, which in Sanskrit means Northeast
- discovered from Northeast India, primarily Assam
- Genus Micryletta, (a small genus of microhylid frogs).
- The microhylid genus is a group of narrow-mouthed frogs that are more commonly known as 'paddy frog'
- Searched by - Team of scientists from Delhi University (DU) and Wildlife Institute of India (an autonomous institution under Union MoEFCC).

'Dead zone' in the Gulf of Mexico :-

- American farmers' use of fertilizer to grow crops results in a yearly oxygen-starved dead zone in the Gulf of Mexico that kills fish, shrimp, and other sea creatures. But that's not the only environmental issue fertilizer is responsible for. It also can contaminate drinking water or turn into smog
- Unoxygenated "**dead zones**" appear in waterways wherever algae are overfed by runoff from human activities such as urbanization and agriculture – a phenomenon called **eutrophication**.
- The dead zone in the Gulf of Mexico, fueled by the nutrient-laden water spilling from the mouth of the Mississippi River, is the second-largest in the world.
- Algae bloom every summer, when warming waters accelerate the metabolism of microorganisms, and it is expected to get even worse as the climate continues to change.
- The main reason for eutrophication appear to be
 - excess nitrogen and phosphorus, from sources including fertilizer runoff
 - septic system effluent
 - atmospheric fallout from burning fossil fuels
- Eutrophication can also produce carbon dioxide, which lowers the PH of seawater (ocean acidification). This slows the growth of fish and shellfish, and may prevent shell formation in molluscs.

Q) Which statement is correct about Balsam plants?

- A) They show high degree of endemism & restricted to western ghats
- B) They are called impatiens because they produce endless seeds

Options :

1. Both A & B are correct
2. Only A is correct
3. Only B is correct
4. Neither of the two is correct

Balsams or jewel-weeds (Impatiens) :-

- 23 new species of Balsams discovered from Eastern Himalayas
- Belonging to Arunachal Pradesh and Sikkim, these plants are highly *sensitive to climatic conditions like extreme drought and extended exposure to sunlight*.
- They Consist of both **annual and perennial herbs**, Annual plants live for one growing season and then die, while perennials regrow every spring.
- Balsams are **succulent plants**. Succulents survive dry indoor environments thanks to special adaptations – fleshy leaves, thick stems or enlarged roots – that allow the plants to hoard water. Because of their bright beautiful flowers, these group of plants are of prized horticultural significance.
- There are about 230 species of Balsams found in India and majority of them are found in the eastern Himalayas and Western Ghats.
- Impatiens flowers take their name from the Latin, impatiens, meaning "impatient." They are so-called because their ripe seed pods will sometimes burst open from even a light touch
- Other than high endemism, what sets Impatiens apart is their sensitivity to climate change.
- Most of the species of Impatiens cannot endure persistent drought or extended exposure to direct sunlight. As a result Impatiens species are typically confined to stream margins, moist roadsides, waterside boulders, near waterfalls and wet forests.



Q) The AWaRe campaign was launched by WHO for what reason?

- a) To contain rising anti-microbial resistance
- b) To spread awareness about cheap generic drugs
- c) To popularize non-invasive surgical procedures

Options :

1. A only
2. B only
3. A & C

4. B & C

AWaRe campaign :-

- The World Health Organization (WHO) launched AWaRe campaign urging governments to adopt a tool to reduce the spread of antimicrobial resistance (AMR)
- One of the **most pressing concerns** is the spread of resistant **gram-negative bacteria**, including Acinetobacter, Escherichia coli and Klebsiella pneumoniae. These bacteria, which are commonly seen in hospitalized patients, cause infections like pneumonia, bloodstream infections, wound or surgical site infections and meningitis. When antibiotics stop working effectively, more expensive treatments and hospital admissions are needed, taking a heavy toll on already stretched health budgets.
- WHO classified antibiotics into 3 groups
 - Access – which antibiotics to use for the most common and serious infections.
 - Watch – which ones should be available at all times in the healthcare system.
 - Reserve– those that must be used sparingly or preserved and used only as a last resort.



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