



DAILY PT MCQs-CRACK PRELIMS 2020 TEST-XI (ENVIRONMENT)

- Which among the following is a criteria used by IUCN to declare a species as Critically endangered?**
 - Reduction in population of species by more than 90% in last 10 years.
 - Population size of mature individuals is 250.Select the CORRECT answer using the codes given below:
 - 1 only
 - 2 only
 - Both 1 and 2
 - Neither 1 nor 2
- Which of the following is/are artificial methods of 'Forest Regeneration'?**
 - Taungya System
 - Silviculture SystemSelect the correct code
 - 1 only
 - 2 only
 - Both
 - None
- The formation of ozone hole in the Antarctica region has been a cause of concern. What could be the reason for the formation of this hole?**
 - Presence of prominent tropospheric turbulence and inflow of chlorofluorocarbons
 - Presence of prominent polar front and stratospheric clouds and inflow of chlorofluorocarbons.
 - Absence of polar front and stratospheric clouds and inflow of chlorofluorocarbons.
 - Increased temperature of polar region due to global warming
- Which among the following is NOT a Critically endangered Species in India?**
 - Pygmy Hog
 - Kondan Rat
 - Wild Ass
 - Malabar civet
- Which among the following is NOT a natural Wetland?**
 - Salt marsh
 - Salt pans
 - Creek
 - Tidal flat
- Consider the following statements with respect to Hangul**
 - It is state animal of Karnataka
 - It is subspecies of Red Deer.Which of the statements given above is/are CORRECT?
 - 1 only
 - 2 only
 - Both 1 and 2
 - Neither 1 nor 2
- Which among the following is/are Insectivorous plants?**
 - Sundew
 - Nepenthaceae

3. Lentibulariaceae

Select the CORRECT answer using the codes given below

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

8. Which among the following has/have been impact of Invasive species on environment?

1. Loss of Biodiversity
2. Increases species richness

Select the CORRECT answer using the codes given below:

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

9. Consider the following statements with reference to deciduous forest

1. In cold climates, the trees lose their leaves during the autumn so that trees are bare throughout the winter.
2. In hot and dry climates, the deciduous trees usually lose their leaves during the dry season.

Which of the statements given above is/are INCORRECT?

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

10. Consider the following with reference to parts of a Tree

1. Pith is a dead sapwood in the centre of the trunk.
2. Heartwood is the tiny dark spot of spongy living cells right in centre of the tree trunk

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

11. Which among the following is a parasitic roots?

- a) Mycorrhiza Roots
- b) Haustorial Roots
- c) Adventitious Roots
- d) None of the above

12. Consider the following

1. Wildlife sanctuary
2. National Park
3. Biosphere reserves

Which of the above areas is/are protected area under Wildlife Protection act 1972?

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

13. With reference to Functions of Biosphere Reserves, consider the following statements

1. To ensure the conservation of landscapes, ecosystems, species and genetic variations.
2. To encourage the traditional resource use system
3. To understand the patterns and processes of functioning of ecosystems

Which of the statements given above is/are CORRECT?

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

14. Which of the following statements given below is/are CORRECT?

1. Grazing food chain is most dominant in the Lake environment.
2. Detritus food chain is most dominant in the Wetland Environment.

Select the CORRECT answer using the codes given below:

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

15. Consider the following areas

1. Madagascar 2. Philippines
3. Indo-Burma

Which of the above is/are part of Eight hottest hot spots?

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

16. Consider the following statements with reference World heritage sites

1. In India, natural heritage sites are more in number than artificial heritage sites.
2. India has only one site which is both natural heritage site and artificial heritage site.

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

17. MIKE programme is a programme related to protection of

- a) Elephants
- b) Vultures

- c) Tiger
- d) Gangatic Dolphins

18. Which of the following is most potent Green House Gases?

- a) Carbon Dioxide
- b) Methane
- c) Nitrous oxide
- d) Sulfur hexafluoride

19. Consider the following statements

1. Acid rains are concentrated in industrial belts of Northern hemisphere.
2. Sunlight stimulates the formation of photo-oxidants in the atmosphere

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

20. Which among the following is NOT a method to reduce the acidification of ocean?

- a) Reducing CO₂
- b) Eliminate offshore drilling
- c) Advocating for energy efficiency
- d) Growing more sea-weed.

21. Consider the following statements

1. Mountain ecosystem is hotspots of the biodiversity in India.
2. Himalayan glaciers are largest glaciers after the North and south poles.

Which of the statement given above is/are CORRECT?

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

22. Consider the following statements

1. Acid rains promote the proliferation of fungi in the environment.
2. Protozoa prefer near neutrality environmental conditions hence the acid rain may cause decline of Protozoas.

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

23. Consider the following statements

1. Banayan tree roots are type of prop roots
2. Mangrove roots are type of stilt roots

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

24. Consider the following

1. Nutrients recycling
2. Water purification
3. Flood mitigation
4. Provides a buffer against coastal erosion

Which of the above functions are of Wetlands?

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

25. Which of the following protected area is covered under Biosphere reservoir, Elephant Reserves and Tiger Reserves?

- a) Manas National Park.
- b) kaziranga national Park.
- c) Silent valley National Park.
- d) None of the above.

ANSWER

1. (a) A Taxon is critically endangered when the best available evidence indicates that it meets any of the criteria:-

- Reduction in population(>90% over the last 10 years.)
- Population size (Number less than 50 matures individuals.)
- Quantitative analysis showing the probability of extinction in wild in at-least 50% in their 10 years.
- It is therefore considered to be facing an extremely high risk of extinction in the wild.

2. (c) The Taungya is a system whereby villagers and sometimes forest plantation workers are given the right to cultivate agricultural crops during the early stages of forest plantation establishment. Cultivation is often allowed to continue until trees shade crops due to canopy closure. This study aimed at analyzing the taungya system at the North Kilimanjaro Forest Plantation in Tanzania but was limited to an examination of costs and revenues resulting from the practice and also the impact the system has on tree survival and

food crop yields. Results show that during the early stages of forest plantation establishment, intercropping of young trees with food crops is beneficial in terms of tree survival, food crop production, financial income to the peasant farmers and reduction of forest plantation establishment costs. Therefore the system is suitable and should be sustained.

A silvicultural system is the process of tending, harvesting and regenerating a forest. Different objectives in forest management (e.g. conservation in an ancient semi-natural woodland vs. production of timber from a conifer plantation) are likely to lead to the adoption of different **Silvi-cultural systems**.

3. (c) **The formation of ozone hole in the Antarctic region has been a cause of concern. What could be the reason for the formation of this hole?** Absence of polar front and stratospheric clouds; and inflow of methane and chlorofluorocarbons.
4. (c) **Wild ass** also known as Kiang is comes under least concern category. Its range is Tibetan plateau, China, Northern Pak, India, Nepal Ladakh and Sikkim.
5. (d) There are various types of **wetlands**, including: **marshes**, swamps, forested **wetlands**, bogs, and wet meadows, as well as coastal **wetlands** such as mangroves. On ground interventions to utilize **wetland** ecosystem services for climate benefits may include **wetland** restoration or conservation activities (avoided degradation).
6. (b) Hangul comes from the Kashmiri word haang, which means a dark, rusty brown

color. It is the only surviving subspecies of the **red deer family** in the Indian subcontinent. The stags boast magnificent antlers of 11 to 16 points, which they shed during the mating season in March, another indicator used by surveyors to estimate the number of males during the census. these are state animal of J& K.

7. (a) **Insectivorous plants of India:-**
 - (1)**Drosera or sundew:-** Inhabiting wet infertile soils or marshy places.
 - (2) **Aldovandra:-**is a free floating rootless aquatic plant the only species found in India, occurs in salt marshes of Sunderbans, south of Calcutta. It is also grows in fresh water bodies like ponds, tanks and lakes.
 - (3) **Nepenthes:-** The members of the family are commonly known as "Pitcher plant" because their leaves bear jar-like structure.
 - (4) **Utricularia or Bladderworts:-**The bladderworts generally inhabit freshwater wetlands and waterlogged areas. Some species are associated with moist moss covered rock surfaces and damp soil during rains.
 - (5)**Pinguicula or butterwort:-** It grows in the alpine heights of Himalayas, from Kashmir to Sikkim, along stream sides in cool boggy places.
8. (a) The invasion potentially lead to increase in species richness, as invasive species are added to the existing species pool. But it also leads to extinction of native species, resulting in decrease of **Species richness**. The negative interactions are primarily the competition with native for food and

sustenance, which may not allow co-existence and also by predation.

- **Effects:**-Loss of Bio-diversity.
- **Decline of** native species.
- **Habitat loss**
- Introduced pathogens reduce crop and stock yields.
- Degradation of marine and freshwater ecosystem.

9. (c) Deciduous **trees** are **trees** that **shed their leaves** once a year, usually **during** the season of **autumn**, when **their leaves** are mature, or fully grown. Deciduous **trees** in the **northern** hemisphere **lose their leaves** in preparation for **cold weather during** the season of **winter**. Since **deciduous** plants **lose their leaves** to conserve water or to better survive winter weather conditions, they must regrow new foliage **during** the next suitable growing **season**; this uses resources which evergreens **do** not need to expend.

10. (d) Pith is the **tiny dark spot of spongy living cells right** in the **center of the tree trunk**. Essential nutrients are carried up through the pith. It's placement **right** in the **center** means it is the most protected from damage by insects, the wind or animals.

Sapwood is the living, outermost portion of a woody stem or branch, while heartwood is the dead, inner wood, which often comprises the majority of a stem's cross-section. You can usually distinguish sapwood from heartwood by its lighter color.

11. (c) **Parasitic roots** are historia

adventitious. **roots** found in the **parasitic** plants are called **parasitic roots** plants which depend on host plants completely for their food a call. **parasitic** groups the plants give shelter and food material to the **parasite** is called the host plant **parasitic**.

12. (a) **The Wildlife Protection Act 1972** is first umbrella act to protect plants as well as animals.

The act extends to the whole of India, except the State of Jammu and Kashmir which has its own wildlife act. It defines five types of protected areas viz. National Parks, Wildlife Sanctuaries, Community Reserves, Conservation Reserves and Tiger Reserves. The act has six schedules with varying degrees of protection to different kinds of animals and plants.

Wild Life Sanctuary:- A wildlife sanctuary is defined by State Government via a Notification. There is no need to pass a legislation (act) by the state assembly to declare a wildlife sanctuary. Fixation and alternation of can be done by state legislature via resolution. No need to pass an act for alternation of boundaries. No alternation of boundaries in wildlife sanctuaries can be done without approval of the NBWL (National Board of Wildlife) Limited human activities are permitted in the sanctuary.

National Parks:- Similar to the Wildlife Sanctuaries, a National Park is defined by state government via notification. The state government can fix and alter boundaries of the National Parks with prior consultation and approval with National Board of

Wildlife. There is no need to pass an act for alternation of boundaries of National Parks. No human activities are permitted in a National Park.

13. **(d) Functions of Biosphere reserve:-** to ensure the conservation of landscape, ecosystems, species and genetic variations.
- To encourage the traditional resource use system.
 - To understand the patterns and processes of functioning of eco-system.
 - To monitor the natural and human caused changes on spatial and temporal scales.
14. **(c)** In nature, basically two types of food chains are recognized – grazing food chain and detritus food chain.

Grazing food chain:

This type of food chain starts from the living green plants goes to grazing herbivores, and on to carnivores. Ecosystems with such type of food chain are directly dependent on an influx of solar radiation. This type of chain thus depends on autotrophic energy capture and the movement of this captured energy to herbivores. Most of the ecosystems in nature follow this type of food chain. The phytoplanktons '!zooplanktons '!Fish sequence or the grasses '!rabbit '!Fox sequences are the examples, of grazing food chain.

Detritus food chain:

This type of food chain goes from dead organic matter into mi-croorganisms and then to organisms feeding on detritus (detrivores) and their predators. Such ecosystems are thus less dependent on

direct solar energy. These depend chiefly on the influx of organic matter produced in another system. For example, such type of food chain operates in the decomposing accumulated litter in a temperate forest.

Significance of food chain:

1. The studies of food chain help understand the feeding relationship and the interaction between organisms in any ecosystem.
2. They also help us to appreciate the energy flow mechanism and matter circulation in ecosystem and understand the movement of toxic substances in the ecosystem.
3. The study of food chain helps us to understand the problems of bio-magnifications.

15. **(d).**





Hottest of the hotspots

1. Madagascar & Indian Ocean Islands
2. Philippines
3. Sundaland
4. Atlantic Forest
5. Caribbean
6. Indo-Burma
7. Western Ghats & Sri Lanka
8. Eastern Arc Mountains & Coastal Forests

16. **(c)** UNESCO World Heritage Sites in India- There are 37 UNESCO World Heritage Sites in India. The sites are broken down into the following categories: 29 cultural sites, 7 natural sites, and 1 mixed site. The most recent site was added in 2018.

17. **(a) Project title:** Monitoring the Illegal Killing of Elephants (MIKE)

Location: South Asia – Bangladesh, Bhutan, India, Nepal and Sri Lanka Southeast Asia – Cambodia, China, Indonesia, Lao PDR, Malaysia, Myanmar, Thailand and Viet Nam.

Project background: The Monitoring the Illegal Killing of Elephants (MIKE) programme is an international collaboration that measures the levels, trends and causes of elephant mortality, thereby providing an information base to support international decision-making related to conservation of elephants in Asia and Africa. The MIKE Programme was established by the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) by Resolution 10.10 adopted at the tenth Conference of the Parties in 1997.

There are currently 28 sites participating in the MIKE programme in Asia, distributed across 13 countries: India has 10 sites, followed by two sites each in Cambodia, Indonesia, Lao PDR, Malaysia, Myanmar and Thailand, and one site each in Bangladesh, Bhutan, China, Nepal, Sri Lanka and Viet Nam.

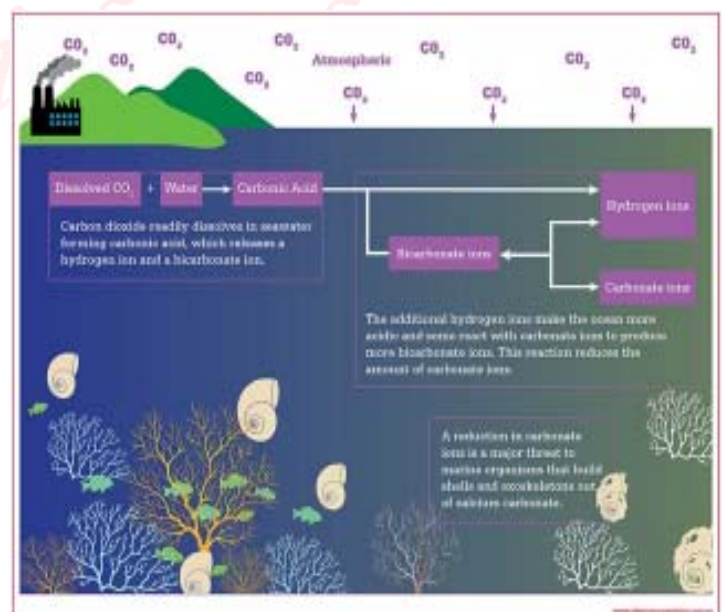
In 2017, IUCN was engaged by CITES to implement the MIKE Asia programme in two sub-regions: South Asia (via the IUCN India Country Office in New Delhi); and Southeast Asia (through the IUCN Asia Regional Office in Bangkok). This forms part of the wider Asia Wildlife Law Enforcement and Demand Reduction Management Project funded by the European Union.

18. (a) The most potent greenhouse gas is water vapour, which causes about 36-70% of the **greenhouse** effect. Carbon dioxide (9-26%), methane (4-9%) and Ozone (3-7%) are other major **greenhouse gases**.

19. (c) They are **concentrated** in the **industrialized belt** of the **northern hemisphere**. They are often upland and/or mountainous **areas**, which are well-watered by **rain** and snow. Due to the abundance of water, they possess numerous lakes and streams and also have more land covered with vegetation.

Sunlight stimulates the formation of photo-oxidants (Such as Ozone) in the atmosphere. These photo- oxidants interact with oxides of Sulphur and Nitrogen to produce H₂SO₄ and HNO₃ by oxidation.

20. (b) *“Ocean acidification refers to a reduction in the pH of the ocean over an extended period of time, caused primarily by uptake of carbon dioxide (CO₂) from the atmosphere.”*



21. (c)

A **biodiversity hotspot** is a bio-geographic region with a significant reservoir of **biodiversity** that is under threat from humans. The **biodiversity hotspots** hold especially high numbers of endemic species, yet their combined area of remaining **habitat** covers only 2.3 percent of the Earth's land surface. **Himalayan glaciers** are the world's third **largest** reserve of ice **after the north and south poles**, and their seasonal melt water is a crucial source for Asia's great rivers, including the Ganges, Indus, Mekong and Yellow.

22. (c) Proliferation of microbial species is governed by pH value. There is 3 pH value of water acidic alkaline and neutral. Acidic is extremely smog, neutral reflect normal rain and alkaline is beyond 7pH value contain ammonia. Many bacteria and protozoa have pH optima near neutrality, most fungi prefer acid environment and many value green bacteria prefer alkaline environment. So pH determines whether any microbial species can proliferate in a particular environment and the rate it can produce.

23. (c) Banyan has two **kinds of roots**. **Tap roots** that grow underground and aerial **prop roots** that grow from branches towards the ground. These **prop roots** when reaches the ground from columns like structure and support the branches of the **tree**.

Stilt roots also called **prop roots** are developed by Rhizophora **species** and Pandanus **species**. **Stilt roots** outgrow the trunk of the **mangrove**, branches or already existing **stilt roots**. The arc-shaped **prop roots** often can be found with a huge amount of lenticels that allow gas exchange in the oxygen-poor soils.

24. (d) Functions of Wetlands:-

- Filtration of sediments and nutrients from surface water.
- Nutrient recycling
- Water purification
- Floods mitigation
- Maintenance of stream flow
- Ground water recharging.
- Provide drinking water, fish, fodder, fuel etc.
- Control rate of run-off in urban areas.
- Buffer shoreline against erosion.

25. (a) **Manas National Park** or **Manas Wildlife Sanctuary** is a national park, UNESCO Natural World Heritage site, a Project Tiger reserve, an elephant reserve and a biosphere reserve in Assam, India. Located in the Himalayan foothills, it is contiguous with the Royal Manas National Park in Bhutan. The park is known for its rare and endangered endemic wildlife such as the Assam roofed turtle, hispid hare, golden langur and pygmy hog. Manas is famous for its population of the wild water buffalo.

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ABHILASH MISHRA	05	334	2016
ASHWINI PANDAY	34	267	2015
TUSHAR SINGLA	86	287	2014
UDITA SINGH	46	231	2013
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