



Daily Current Affairs Prelims Quiz 24-01-2022 - (Online Prelims Test)

1) Which of the following state releases the first bird atlas in India?

- a. Sikkim
- b. Kerala
- c. Tamil Nadu
- d. Arunachal Pradesh

Answer : b

Kerala gets its first ever scientific bird atlas.

Bird Atlas

- The Kerala Bird Atlas (KBA), the first-of-its-kind state-level bird atlas in India, has created solid baseline data about the distribution and abundance of various bird species across all major habitats giving an impetus for futuristic studies.
- KBA was prepared based on systematic surveys held twice over 60 days a year during the wet (July to September) and dry (January to March) seasons between 2015 and 2020.
- It is arguably Asia's largest bird atlas in terms of geographical extent, sampling effort and species coverage derived from the aggregation of 25,000 checklists.
- It was found that the species count was higher during the dry season than in the wet season while species richness and evenness were higher in the northern and central districts than in the southern districts.
- Most of the endemics were concentrated in the Western Ghats while the threatened species were mostly along the coasts.
- The KBA is considered to be a valuable resource for testing various ecological hypotheses and suggesting science-backed conservation measures.

2) Consider the following statements regarding sexual choices in different species:

1. In some species of poeciliid fish, male attractiveness is linked to genes that can reduce female's survival.
2. Females chimpanzees select mates that are more distantly related to them than the average male in the available pool.
3. In pipefishes, the males carry the fertilized eggs until they hatch, and the females compete with each other in order to secure the attentions of males.

Which of the above statement(s) is/are **incorrect**?

- a. 1 and 2 only
- b. 2 only
- c. 2 and 3 only
- d. None of the above.

Answer : d

Darwin downplayed the role of female variation in other animal species, assuming they were rather uniform, and always made similar decisions.

How Victorian sexism influenced Darwin's theories

- Darwin proposed that many animal species carefully select their mates.
- He downplayed the role of female variation in other animal species, assuming they were rather uniform, and always made similar decisions.
- And he thought there was enormous variation among the males who battled for female attention by showing off stunning ranges of skills and beauty.
- This maintained the focus on the dynamics of male dominance hierarchies, sexual ornamentation and variation as drivers of sexual selection, even if females sometimes did the choosing.

Complex choices

- When animals choose a partner, their appearance, sound and smell can all be accurate guides to the survival ability of the prospective mate.
- For example, large antlers in deer are a good indicator of fighting ability, dominance and overall fitness.
- But many other traits can be chosen because they are otherwise conspicuous and attractive yet may be a poor guide to overall genetic quality, or even misleading.
- In some species of poeciliid fish, for example, male attractiveness is linked to genes that can reduce their survival.
- Females therefore face a dilemma: mate with a more attractive male and produce some highly attractive but otherwise less vigorous sons, or mate with a less attractive male to maximize the survival of those sons.
- Females may therefore select for traits in males that apparently have no other bearing upon their ability to survive.
- The peacock's tail is a handicap in most other aspects of its life — an impediment to flight and evading predators — save for the attraction of a female.
- Male species also choose
- It isn't always females who choose.
- In pipefishes, the males invest heavily by carrying the fertilized eggs until they hatch, and it is the females who compete with each other in order to secure the attentions of males.

Choice differs with respect to age

- Optimal mate choice is not the same for all individuals, or at all times in their development.
- For example, younger satin bowerbirds are frightened by the most vigorous male displays, while older females typically find these most attractive.
- And many fishes are sequential hermaphrodites, changing sex — and therefore mate choices — as they age.
- Female birds and mammals may choose to mate with multiple males, and their sperm can compete to fertilise one or more eggs within the reproductive tract.
- Female blue tits often mate with multiple males in order to ensure their protection and support - a somewhat manipulative strategy when paternity for the prospective fathers is uncertain.

Setbacks in Darwin's theory

- Darwin — like Albert Einstein, H.G. Wells and Edgar Allan Poe — married his first cousin, Emma Wedgwood.
- Ironically, he knew nothing of genetics and the mechanisms by which close relatives are more likely to have offspring with certain genetic diseases.

- Intriguingly, our closest relatives in the tree of life, the chimpanzees, naturally circumvent this problem, since females select mates that are more distantly related to them than the average male in the available pool.
- Darwin – possibly as a result of prevailing prudishness – placed little emphasis on mechanisms of sexual selection that operate after mating.
- All this challenges Darwin’s assumption that females are relatively passive and non-strategic.
- Despite its omissions, however, Darwin’s understanding was radically more advanced than anything that preceded it.
- Research since Darwin, therefore, reveals that mate choice is a far more complex process than he may have supposed, and is governed by variation in both sexes.

3) Consider the following statements:

1. Lothal is the world’s oldest tidal dockyard, which could berth and service ships.
2. People of the Indus valley civilization farmed with animal-drawn ploughs and they used weights and measures.

Which of the above statement(s) is/are correct?

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

Answer : c

Indian astronomy has a long history and was a Vedanga, an auxiliary discipline associated with the study of the Vedas, dating back to 1,500 BCE or earlier.

Science in Ancient India

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- Indian science and technology began at Mehrgarh (now in Pakistan) and continued throughout the country’s history.
- People developed different systems of agriculture, irrigation, canals and water storage systems, including artificial lakes, by 3,000 BCE.
- Cotton was cultivated by 5,000–4,000 BCE.
- They farmed with animal-drawn ploughs in the Indus Civilisation in 2,500 BCE.
- The people of the Indus-Sarasvati region used weights and measures.
- The earliest-known dock in the world, which could berth and service ships, was situated at Lothal in Gujarat.
- Indian metallurgy was very advanced.
- Steel was made in India from 500 BCE. King Porus gifted Alexander a steel sword in 326 BCE.
- The iron pillar located in Delhi is seven metres high and has never rusted. Over 5,000 years ago, there were dentists in the Indus-Sarasvati region.

4) Consider the following statements regarding Indian National Army (INA):

1. Indian National Army (INA) was formed by Mohan Singh in 1942, with the aid of Japan.
2. The Azad Hind Fauj under Rash Behari Bose participated in the operation of Japanese campaign towards British India.

Which of the above statement(s) is/are correct?

- a. 1 only
- b. 2 only

- c. Both 1 and 2
- d. Neither 1 nor 2

Answer : a

This year marks the 125th birth anniversary of Netaji Subhas Chandra Bose.

Indian National Army (INA)

Background

- Following the outbreak of World War II, Japan invaded South East Asia.
- At the time 70,000 troops were stationed in the region, most of them along the Malayan coast.
- Japan conducted a lightning campaign which culminated in the fall of the Malayan peninsula and Singapore in 1942.
- In the Singapore campaign alone, 45,000 Indian prisoners of war were captured.
- It was from these prisoners of war that the Japanese decided to create an auxiliary army which would fight against the British.

First INA

- The first INA was formed under Mohan Singh, a former officer of the British Indian Army captured during the Malay campaign.
- Conditions in the prisoner of war camps, as well as resentment against the British in general, saw many prisoners of war volunteer join the Indian National Army.
- The initiative received considerable support from the Imperial Japanese Army and from the ethnic Indian population of South-East Asia.
- However, disagreements between Mohan Singh and Japanese Army Command regarding the autonomy of the Indian National Army led to the disbandment of the first INA in December 1942.

Second INA

- Mohan Singh himself recommended that Subash Chandra Bose for the leadership role.
- His reputation as a committed nationalist was known to both the Indian diaspora of South East Asia and the Imperial Japanese Army.
- The activities of Subash Chandra Bose in India had forced the British authorities to imprison him, but he escaped and reached Berlin in 1941.
- The Japanese were ready to support him and upon their personal invitation, Subash Chandra Bose arrived in Singapore in July 1943 to take command of what would be known as the second Indian National Army, now known by its alternative name as the Azad Hind Fauj.
- The Azad Hind Fauj participated in operation U-Go, the 1944 Japanese campaign towards British India.
- It was commanded by Renya Mutaguchi, Masakazu Kawabe, and Subhas Chandra Bose.
- Although the INA saw initial success during the early phases of the operation, they were forced to withdraw during the battle of Imphal and battle of Kohima (Fought on April 4th, 1944) which saw the disastrous defeat for the Japanese Army at the hands of the British.
- Following the Japanese defeat in World War 2, most of the members of the INA were captured by the British.
- Subash Chandra Bose himself eluded capture and was reported to have died in a plane crash near Taiwan in September 1945.

5) Consider the following statements regarding Mid Latitude Deserts:

1. Mid Latitude Deserts are those present in the rain shadow regions or due to continentality.
2. The Ladakh desert, Gobi Desert of Central Asia and Patagonian Desert of South America are

deserts found on a plateau.

3. The Gobi Desert is formed due to rain-shadow effect and the Patagonian Desert due to continentality.

Which of the above statement(s) is/are correct?

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

Answer : a

Less snow, high temperatures have upturned lives in Himalayan cold desert.

Mid Latitude Desert Climate

- The temperate deserts are rainless because of either continentality or rain-shadow effect.
- Gobi Desert is formed due to continentality and Patagonian Desert due to rain-shadow effect.
- The Patagonian Desert is more due to its rain-shadow position on the leeward side of the lofty Andes than to continentality.
- Continentality: a measure of the difference between continental and marine climates characterized by the increased range of temperatures that occurs over land compared with water.
- Amongst the mid-latitude deserts, many are found on plateau and are at a considerable distance from the sea.
- These are Ladakh, The Kyzyl Kum, Turkestan, Taklimakan and Gobi deserts of Central Asia, drier portions of the Great Basin Desert of the western United States and Patagonian Deserts of Argentina etc.

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