



Daily Current Affairs Prelims Quiz 16-06-2023 (Online Prelims Test)

1) Consider the following statements with respect to Solar Chromosphere

1. The chromosphere is an irregular layer situated between the bright solar surface and the extremely hot corona.
2. The chromosphere is a highly active layer and transfers only thermal energy.
3. Grains are acoustic shock formed in corona that helps in transferring energy from corona to solar surface.

How many of the statements given above are correct?

- a. Only one
- b. Only two
- c. All Three
- d. None

Answer : a

A recent study by Indian Institute of Astrophysics (IIA) has found that bright grains observed in the chromosphere of the Sun are due to upward propagating shocks in the solar plasma.

- The study also found that on average, the temperature rise in chromosphere can be about 1100 K and a maximum of about 4500 K, which is three times higher than estimates from earlier studies. ❌
- The **chromosphere** is an *irregular layer* situated between the bright solar surface and the extremely hot corona.
- The chromosphere is a **highly active layer** which plays a crucial role in transferring energy from corona to solar surface.
- Chromosphere transfers energy (specifically **non-thermal energy**) that heats the corona and fuels the solar wind, which extends outward into the surrounding regions of the solar atmosphere.
- Bright **grains** are observed in **solar chromosphere**.
- Grains are **acoustic shock waves** which are responsible for heating events in chromosphere.
- Two widely accepted **mechanisms of transferring energy** between corona and solar surface are
 1. Rearrangement of the *magnetic field lines*, transitioning from higher to lower potential.
 2. Propagation of *different types of waves* including **acoustic waves**.
- Indian Institute of Astrophysics (IIA) is an **autonomous institute** of the Department of Science & Technology (DST).

2) Consider the following statements with respect to Non-communicable diseases (NCDs) in India.

1. Non-communicable diseases (NCDs) include cancers, cardiovascular diseases, diabetes and chronic

respiratory disease.

2. Cancer is the leading cause of NCD related deaths in India.
3. Currently urban regions had higher rates of all metabolic NCDs than rural areas with exception of prediabetes.

How many of the statements given above are correct?

- a. Only one
- b. Only two
- c. All Three
- d. None

Answer : b

*A recent study shows that **31 million** more Indians became diabetic in four years (2019-2021).*

Key findings of the study

- The study was funded by the *Indian Council of Medical Research and Department of Health Research*, Ministry of Health and Family Welfare and co-ordinated by the *Madras Diabetes Research Foundation*.
- Currently *urban regions* had higher rates of all metabolic NCDs than rural areas with exception of prediabetes.
- The highest diabetes prevalence was found in **Goa**, Puducherry and Kerala.
- *Hypertension* was highest in **Punjab**.
- Generalised obesity and abdominal obesity were highest in Puducherry, while Kerala had high hypercholesterolemia and high LDL cholesterol.
- The *lowest prevalence* of NCDs was found in **Uttar Pradesh**, Mizoram, Meghalaya and Jharkhand.
- While the diabetes epidemic is stabilising in the more developed States of the country, it is still increasing in most of the other States.

Non-communicable diseases (NCDs)

- Non-communicable diseases (NCDs) also known as **chronic diseases** tend to be of long duration and are the result of a combination of genetic, physiological, environmental and behavioural factors.
- The *main types of NCD* are
 - Cardiovascular diseases (such as heart attacks and stroke),
 - Cancers,
 - Chronic respiratory diseases (such as chronic obstructive pulmonary disease and asthma) and
 - Diabetes.
- **Cardiovascular diseases is the leading cause of NCD-related deaths** at 27%, followed by chronic respiratory diseases (11%), cancers (9%), diabetes (3%), and other diseases (13%).

3) Consider the following statements with respect to Sea slaters

1. Sea Slater is a fast-running semi-terrestrial isopod.
2. They mostly eat dead plant and fungal matter and act as a recyclers.
3. It is native to the Northeast Atlantic and found in the coastal regions of Kerala.
4. Increase in light pollution is affecting the camouflage ability of sea slaters.

How many of the statements given above are correct?

- a. Only one
- b. Only two
- c. Only three
- d. All four

Answer : c

*In a new study published in Proceedings of the Royal Society B, shows that **diffused pollution at night can confuse Sea slaters**, rendering their **camouflage useless**.*

- **Ligia oceanica** is a fast-running semi-terrestrial isopod commonly known as the Sea Slater.
- Isopod is an order of **crustaceans** that **includes woodlice** and their relatives that live in the sea, in fresh water, or on land.
- Sea slaters is a species of woodlouse.
- It is **native to the Northeast Atlantic from Norway to Morocco and the western Baltic**.
- It is found on rocky shorelines, wharf pilings and harbor areas where it inhabits the borders of the land and sea.
- They mostly eat dead plant and fungal matter and act as important **natural recyclers**, just like worms.
- While sea slaters are **not a threatened or vulnerable species**, they act as a **natural recycler** in local ecosystem.
- They can also be an important source of food for many birds that live on the seashore.
- The sea slaters turned darker when confronted with a point-source light but **diffused light confused them** and caused them to become lighter, making them easier for predators to spot.

4) Drip Pricing, often seen in the news, refers to?

- a. It is a mechanism announced by RBI to support local exporters to deal with increasing inflation
- b. It is a technique in which multinational companies fix their product's pricing of their international products
- c. It is a technique in which firms advertise only part of a product's price and reveal other charges later at final billing
- d. It is the pricing mechanism which includes the cost of subsidies offered by the government to recover the subsidy cost from the end consumer

Answer : c

*Recently Advertising Standards Council of India (ASCI) released the **guidelines on price Pricing** to check 'dark patterns' such as non-declaration of the final price upfront or creating a sense of false urgency to woo consumers.*

- Drip pricing is a pricing technique in which firms advertise *only part of a product's price* and reveal other charges later at final billing.
- Deceptive online patterns are a violation of the Consumer Protection Act.
- A robust self-regulatory mechanism for the larger framework on online deceptive patterns is the need of the hour.

Key highlights of the guidelines

- The guidelines state that "quoted prices" in advertisements and e-commerce sites *must include non-optional taxes, duties, fees and charges that apply to all buyers*.
- When an ad or an element in an ad directly or indirectly implies one outcome of the consumer's action but instead serves up another, it is misleading.
- Implying that quantities of a product or service are "more limited than they are" to create a **false sense of urgency** will be considered *misleading*.

- Guidelines is expected to create communication and systems that **respect user autonomy**, improve transparency and encourage well-informed choices.
- It will play a crucial role in **fostering a more ethical and trustworthy advertising ecosystem** and protecting consumer trust.
- The **Advertising Standards Council of India (ASCI)** is a *voluntary self-regulatory organization* of the advertising industry in India.

5) Which of the following governs the naming of newly identified animal species?

- International Zoological Society
- Respective national governments
- International Union for Conservation of Nature
- International Commission of Zoological Nomenclature

Answer : d

In recent years the science of naming and classifying all living beings has been witnessing a raging debate to change the species names which are objectionable.

- Every species of animal or plant has **two scientific names**.
- The first name of every species denotes the **genus to which the species belongs**. It is a generic name and is always *capitalised*.
- The second name of every species identifies the species **within the genus** and is never capitalised.
- Both first and second names are **italicised**.
- An organism can be named
 - Based on their *distinctive features*,
 - After *people who discover them* and
 - In **honour of somebody** such as Hitler beetle.
- Although **anybody can propose a name** for a type of organism they think hasn't been formally identified by anyone else but there are certain rules, or nomenclature codes that need to be followed.
- A new name is considered to be valid only when it is published in an "openly distributed publication, and it must be accompanied by a detailed description of the specimens the author claims are typical for the group.
- The **nomenclature codes** are governed by international bodies such as
 - **The International Commission of Zoological Nomenclature (ICZN) which governs the naming of animals**,
 - The International Code of Nomenclature for algae, fungi, and plants (ICNafp) that sees the naming of plants (including cyanobacteria),
 - The International Code of Nomenclature of Bacteria (ICNB) that governs the naming of bacteria (including Archaea) and
 - The International Committee on Taxonomy of Viruses (ICTV) that governs virus names.
- The *only proper reasons for changing a name* are either a more
 - Profound knowledge of the facts resulting from **adequate taxonomic study** or the **necessity of giving up a nomenclature that is contrary to the rules**.
- The international nomenclature bodies **cannot change name of the species** if the names are linked with racism and anti-Semitism.
- The *names leading to debates* are
 - *Anophthalmus hitleri*, named after Adolf Hitler is a blind beetle, popularly known as the Hitler beetle.
 - *Small-blotched lizard* with scientific name *Uta stansburiana* named after Howard Stansbury who played a key role in a locally-infamous massacre of Timpanogos Native Americans.