



Daily Current Affairs Prelims Quiz 28-09-2024 (Online Prelims Test)

1) Consider the following statements:

1. Ol Doinyo Lengai, situated in Tanzania is the only volcano that expels carbonatite lavas in the world.
2. Volcanoes with enigmatic type of eruptions are unusually rich in iron.
3. Iron-rich magma found in extinct volcanoes could be a potent source of rare earth elements.

How many of the statements given above are correct?

- a. Only one
- b. Only two
- c. All three
- d. None of the above

Answer : c

Volcanoes



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- A volcano is a rupture in the Earth's crust that allows lava, ash, and gases to escape from a magma chamber below the surface.
- Volcanoes with enigmatic type of eruptions are unusually rich in iron.
- Iron-rich magma found in extinct volcanoes could be a potent source of rare earth elements.
- Ol Doinyo Lengai is an active volcano that erupts the runniest lava on Earth.
- Ol Doinyo Lengai, situated in Tanzania is the only volcano that expels carbonatite lavas in the world.
- There are records of Ol Doinyo Lengai eruptions going back to the 1880s, and the volcano has been periodically active ever since.
- Carbonatite is extremely thin and saturated with alkali elements such as calcium and sodium.

2) Consider the following statements with respect to Non-Alcoholic Fatty Liver Diseases (NAFLD)

1. It is a silent disease with few or no symptoms.
2. Non-Alcoholic Fatty Liver Diseases (NAFLD) is a major non-communicable disease that account for more than 66% of deaths in the country.

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

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

Answer : d

Non-Alcoholic Fatty Liver Diseases (NAFLD)

Union Health Ministry has recently released the revised operational guidelines for Non-Alcoholic Fatty Liver Disease.

- Non-alcoholic fatty liver disease (NAFLD) is a condition in which fat builds up in your liver.
- Non-alcoholic fatty liver (NAFL) and non-alcoholic steatohepatitis (NASH) are types of NAFLD.
- If a person have NASH, then they have inflammation and liver damage, along with fat in your liver.
- **Symptoms** - Usually NAFLD is a silent disease with few or no symptoms.
- **Causes** - Certain health conditions and diseases including obesity, metabolic syndrome and type 2 diabetes can cause to develop NAFLD.
- NCDs are strongly associated with behavioural risk factors such as tobacco use, alcohol use, poor diet, insufficient physical activity, and air pollution.
- **Treatment** - Doctors recommend weight loss to treat NAFLD, which is either NAFL or nonalcoholic steatohepatitis (NASH).
- Weight loss can reduce fat, inflammation, and fibrosis in the liver. No medicines have been approved to treat NAFLD or NASH.
- **NAFLD in India** - NAFLD is now recognized as a major non-communicable disease (NCD) and is becoming an important cause of liver disease in India.
- **Non-communicable diseases (NCDs) account for more than 66% of deaths in the country.**
- **India** became the **first** country to integrate NAFLD into its National Programme for Prevention and Control of NCDs in 2021.
- The community prevalence of NAFLD in India ranges from 9% to 32%, depending on various factors such as age, gender, area of residence and socioeconomic status.
- Out of 10 persons 1 to 3 persons will be having fatty liver or related disease.
- Union Health Ministry has recently released the revised operational guidelines for Non-Alcoholic Fatty Liver Disease.
- These documents are designed to improve patient care and outcomes related to NAFLD through informed, evidence-based practices.
- India has taken the lead in recognising NAFLD as a major non communicable disease.

3) Consider the following statements with respect to Horse Gram

1. It is a pulse crop that can thrive in rain-fed and semi-arid conditions, making it a valuable asset for small-scale farmers.
2. The leguminous plant enriches the soil organic carbon content and supports the growth of the succeeding crop.
3. It has drought-resistant capacity and can withstand prolonged dry spells.

How many of the statements given above are correct?

- a. Only one
- b. Only two
- c. All three
- d. None of the above

Answer : c

Horse Gram

- Horse gram is an ancient and often underutilised crop that holds immense potential for preserving genetic resources and strengthening farmers' resilience to changing climate.
- It is a **native to India** and is an important food legume crop in the peninsular region.
- The cultivation of horse gram is predominantly concentrated in the states of Karnataka, Andhra Pradesh, Tamil Nadu, Odisha, Bihar, Jharkhand, Maharashtra and Chhattisgarh.

- It is a pulse crop that can thrive in rain-fed and semi-arid conditions, making it a valuable asset for small-scale farmers.
- The leguminous plant enriches the soil organic carbon content and supports the growth of the succeeding crop.

According to the Indian Institute of Pulses Research, the total area under horse gram cultivation in India is approximately 507,000 hectares, producing 262,000 tonnes with a productivity of 516 kilograms per hectare.

- **Significance** – It is a low-cost pulse loaded with high protein.
- It is a source of protein (17.9– 25.3 %), carbohydrates (51.9–60.9 %), essential amino acids, energy, low content of lipid (0.58–2.06 %), iron, phosphorus, iron and vitamins such as carotene, thiamine, riboflavin, niacin and vitamin C.
- Horse gram has **antioxidant** and **osmolyte biosynthesis** qualities which makes it a sturdy crop to thrive in extreme heat and long periods of drought.
- It has a dual function protein that exhibits both lectin and lipoxygenase-like functions that enhances pests and pathogens resistance characteristics of horse gram.
- It has low fat and is blessed with dietary fibre, amino acids, carotene, thiamine, riboflavin, niacin, iron, vitamin C and phytochemicals.
- According to *Charak Samhita, a Sanskrit text on ayurveda*, horse gram is useful for curing piles, hiccups, abdominal lump, bronchial asthma, kidney stones, leukoderma and regulating perspiration.
- Due to the presence of beneficial bioactive compounds, horse gram possesses anti-diabetic and anti-ulcer qualities and helps in **controlling obesity**.

4) Consider the following pairs:

Missile Systems

Relevance

- | | | |
|------------|---|-------------------------------------|
| 1. Pinaka | - | Multi-Barrel Rocket Launcher, India |
| 2. Nirbhay | - | Sub-sonic cruise missiles, India |
| 3. HIMARS | - | Multiple rocket launcher, USA |

How many of the pair(s) given above is/are correctly matched?

- Only one
- Only two
- All three
- None of the above

Answer : c

Pinaka, Nirbhay and HIMARS

- **Pinaka** – Is a Multi Barrel Rocket Launcher (MBRL) is battle-proven an all-weather, indirect area fire Artillery Weapon System designed.
- It is being widely exploited and their ability.
- It is the first public-private partnership in Defence systems, between DRDO and Tata Advanced Systems (TASL).
- **Nirbhay** – It is a long-range, **subsonic cruise missile** designed and developed by India's Defence Research and Development Organisation (DRDO).
- **HIMARS (High Mobility Artillery Rocket System)** – it is a long- multiple rocket launcher, mobile, precision fires launcher.
- It was supplied by US to Ukraine.

5) Consider the following statements with respect to Global Innovation Index, 2024

1. It is published by the World Intellectual Property Organization (WIPO).
2. The Index ranks the innovation capabilities and results of world economies.
3. India ranks 39th among the 133 economies featured in the Global Innovation Index, 2024.

How many of the statements given above are correct?

- a. Only one
- b. Only two
- c. All three
- d. None of the above

Answer : c

Global Innovation Index (GII), 2024

- The Global Innovation Index (GII) ranks world economies according to their innovation capabilities that aims to capture the multi-dimensional facets of innovation.
- It consists of roughly 80 indicators that are grouped into innovation inputs and outputs.
- The GII has 2 sub-indices:
 1. The Innovation Input Sub-Index
 2. The Innovation Output Sub-Index
- It consists of 7 pillars, each consisting of 3 sub-pillars.
- It measures innovation based on following criteria:



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- **India** - Performs better in innovation outputs than innovation inputs in 2024.
- **India ranks 39th** among the 133 economies featured in the Global Innovation Index, 2024.
- In 2024, India had ranked 44th in innovation inputs. This position is higher than last year.
- India ranks 33rd in innovation outputs in the year 2024. This position is higher than last year.
- For India, 7 indicators have improved in the short-term and 5 indicators have worsened.

Year	GII Position	Innovation Inputs	Innovation Outputs
2020	48th	57th	45th
2021	46th	57th	45th
2022	40th	42nd	39th
2023	40th	46th	35th
2024	39th	44th	33rd