



## UPSC CURRENT AFFAIRS NOTES 14-02-2024

### World Government Summit (WGS) 2024

The Indian Prime Minister will attend the **World Government Summit 2024** as a guest of honour in UAE.

#### About World Government Summit (WGS)

- It is an annual global gathering that brings together world leaders, policymakers, experts, and thought leaders from various fields to discuss and address pressing global issues.
- It was established in 2013 under the leadership of the Vice President and Prime Minister of the UAE.
- It is annually held in Dubai, UAE.
- The Summit, in its various activities, explores the agenda of the next generation of governments, focusing on harnessing innovation and technology to solve universal challenges facing humanity.
- Since its inception, the Summit has championed the mission of shaping future governments and creating a better future for humanity.

#### World Government Summit (WGS) 2024:

Theme: “Shaping Future Governments”

#### It will focus on six main themes:

1. Government Acceleration and Transformation.
2. Artificial Intelligence and The Next Frontiers.
3. Reimagining Development and Future Economies.
4. Future Societies and Education.
5. Sustainability and The New Global Shifts.
6. Urbanization and Global Health Priorities.

It is bordered by Saudi Arabia to the west and south and by Oman to the east and northeast. It also has maritime borders in the Persian Gulf with Qatar and Iran.

## Market Capitalisation

Reliance Industries Limited (RIL) recently became the first Indian company to surpass Rs 20 lakh crore in market capitalisation.



**Market Capitalization Formula** = **Current Market Price Per Share x Total Number of Outstanding Shares**



### About Market Capitalisation

- Market Capitalization, or Market Cap, is a term used to represent the market value of a company based on its current share price and the total number of its outstanding shares.
- It can be calculated by multiplying the number of outstanding shares of a company by the current price of its shares.
- It represents the market's perception of a company's worth and indicates its size and significance in the financial markets.

**On the basis of market cap, companies may be classified as large-cap, mid-cap, or small-cap companies.**

- Large-cap companies are usually stable, reputable, and well-established businesses that have a significant market share. They have market caps of INR 20,000 crore or more.
- Mid-cap companies have a market cap ranging from INR 5,000 crore to INR 20,000 crore.
- Small-cap companies operate at a smaller scale than large-cap and mid-cap companies. Consequently, their market cap is also lower (less than INR 5,000 crore).

Why is market capitalization important?

- It allows potential investors to understand the true value of companies and the size of one company in relation to another.
- It helps investors predict the future performance of the stock of a company because it reflects what the market is willing to pay for the stock.

**What is Free float market capitalisation?**

- While calculating the total market capitalization of a company, all the shares, including the ones publicly traded as well as those held by promoters, government, or other private parties, are multiplied with the stock price.
- But in the free-float market capitalization, we exclude shares held by private parties like promoters, trusts, or the government.
- We only consider shares held and traded by the public and multiply them with share price to arrive at the free-float market capitalization of a company.

**Shares**

The capital of a company is divided into shares. Each share forms a unit of ownership of a company and is offered for sale so as to raise capital for the company.

**PM Surya Ghar: Muft Bijli Yojana**





Prime Minister Narendra Modi unveiled the 'PM Surya Ghar: Muft Bijli Yojana'.

### Details

- The initiative is aimed at providing 300 units of free electricity every month to one crore households across the nation.
- The project would entail an investment of over Rs 75,000 crore.
- From substantive subsidies, which will be given directly to people's bank accounts, to heavily concessional bank loans, the central government will ensure that there is no cost burden on the people.
- All stakeholders will be integrated to a National Online Portal.
- In order to popularise this scheme at the grassroots, urban local bodies and panchayats shall be incentivized to promote rooftop solar systems in their jurisdictions.
- At the same time, the scheme will lead to more income, lesser power bills and employment generation for people.

### Expected benefits:

- Savings up to fifteen to eighteen thousand rupees annually for households from free solar electricity and selling the surplus to the distribution companies;

### Charging of electric vehicles;

- Entrepreneurship opportunities for a large number of vendors for supply and installation;
- Employment opportunities for the youth with technical skills in manufacturing, installation and maintenance.

## HASHTSAL MINAR



Today, the **Hashtsal Minar** is more or less unknown even to people living in Hashtsal, let alone Delhi, while its origins remain a subject of mystery and debate.

### Details

#### Location

- Hashtsal village, Uttam Nagar, West Delhi, India

#### History

- Built in 1650 by Mughal emperor Shah Jahan near his hunting lodge in Hashtsal.
- Originally a 5-storeyed tower topped with a domed Chhatri pavilion, **used by Shah Jahan for entertainment after hunting.**
- Legends suggest a tunnel existed from the tower to the royal hunting lodge.
- Later, the domed pavilion and upper two storeys collapsed in the 18th century.
- Became abandoned and forgotten in recent history, surrounded by urbanization.



## Architecture

- **Resembles Qutub Minar in Delhi, built with Lakhori bricks and red sandstone.**
- **Originally had five storeys** with a narrowing diameter, accessed by a narrow staircase.
- Each storey surrounded by an octagonal ring with overhanging eaves (Chhajja) like the Qutub Minar.

## Threats

- Endangered due to decades of neglect and lack of conservation.
- Threatened by natural elements and encroachment of new constructions in Hastal.
- Completely surrounded by haphazardly built houses and buildings, with new constructions encroaching upon the lower platform.
- Access to the tower is through a narrow lane surrounded by new constructions.

## Legends

- Legends surround its origins, with **locals believing it was constructed by Prithviraj Chauhan or used by the Pandavas for their elephants.**
- According to Zafar Hasan, the minar was constructed by Emperor Shah Jahan, who had his Shikargah (hunting palace) nearby.
- The structure's domed arches and use of red Lakhori bricks reflect Mughal architectural style.
- Local oral history suggests a tunnel once connected the minar to the hunting palace.
- Péter T Nagy's paper highlights the Mughals' inclination towards using minars for various purposes, such as commemorating the demise of pets.

## Current Status

- **Accorded Grade A status in 2018 for its architectural and historical significance.**

- Despite its importance, the minar remains relatively unknown even to locals, and its origins continue to spark mystery and debate.

The Mini Qutub Minar, a Grade A listed protected heritage monument, serves as a reminder of Shah Jahan's presence in Hastals and is in urgent need of conservation to preserve its historical significance.

## HAWK 132 AIRCRAFT



One Hawk aircraft of the Indian Air Force met with an accident at Kalaikunda, West Bengal.

### Details

#### Hawks & IAF

The Indian Air Force (IAF) has relied on the British-origin Hawk aircraft, specifically the Hawk Mk 132, since 2008.

### Origins

The Hawk's origins trace back to its maiden flight in 1974 in Surrey, UK. Since then, it has earned a global presence, with operations spanning across 12 countries, including India, the UK, Australia, Canada, and Saudi Arabia.

### Manufacture and operational capabilities



- Manufactured by BAE Systems.
- This advanced training aircraft boasts a single-engine, jet-powered design, making it well-suited for a range of roles, including ground attacks, flying instruction, weapons training, and aerobatics.
- Its versatility lies in its capacity to function both as a training platform and a fully combat-capable aircraft capable of executing air-to-air and air-to-ground missions.
- Powering the Hawk Mk 132 is the Rolls-Royce Adour Mk 871 twin-spool turbofan engine, offering a commendable range of 2,520 kilometers and a top speed of 1,065 kilometers per hour.
- Its fuel capacity of 2,805 liters ensures sustained operations during training exercises and combat missions alike.

### Operational in India

- The Hawk serves as a vital component of the IAF's training and operational capabilities.
- In India, the Hawk Mk 132 variant, featuring tandem seating for a trainee and a pilot, has been instrumental in bridging the training gap between basic piston-engine trainers and advanced fighter aircraft within the IAF ranks.
- Trainees undergo Stage-III training with the Hawk before progressing to supersonic jets like Jaguars, MiG-21s, and Mirage 2000s.

### Acquisition

- The journey to integrate the Hawk into the IAF's fleet was not without its challenges.
- Although the IAF initially articulated its need for an advanced jet trainer (AJT) in 1982, it took until 2004 to finalize the contract for the Hawks.
- The first two aircraft arrived in 2007, with subsequent acquisitions procured from both BAE Systems and India's Hindustan Aeronautics Limited (HAL), which played a significant role in domestic assembly.
- Presently, **India boasts the world's largest fleet of Hawk advanced jet trainers** outside the UK, totalling 123 aircraft. These Hawks are stationed





primarily at the Bidar Air Force Station, a cornerstone of the IAF's flying training infrastructure.

### **Incidences of crash and collide**

- The Hawk's significance extends beyond training purposes. In 2015, it facilitated the revival of the Indian Air Force's Surya Kiran aerobatics team, which had been grounded for four years due to a shortage of trainer jets.
- However, tragedy struck in 2019 during a rehearsal for the Aero India show when two Hawks collided at the Yelahanka air force base near Bengaluru, resulting in the loss of one IAF wing commander's life and injuries to others.

Despite such incidents, the Hawk remains a cornerstone of the IAF's training and operational capabilities, reaffirming India's commitment to maintaining a robust defence infrastructure in the face of evolving security challenges.

## **Bubonic Plague**

Officials in the US state of Oregon recently said they are dealing with a rare human case of bubonic plague that was likely transmitted by a pet cat.

### **About Bubonic Plague**

- Plague is an infectious disease caused by a specific type of bacterium called *Yersinia pestis*, a zoonotic bacterium usually found in small mammals and their fleas.
- *Y. pestis* can affect humans and animals and is spread mainly by fleas.
- Bubonic plague is one type of plague. It gets its name from the swollen lymph nodes (buboes) caused by the disease.
  - Called the Black Death, it killed millions of Europeans during the Middle Ages.
- The other types of plague are:
  - Septicemic plague, which happens when the infection goes all through the body.
  - Pneumonic plague, which happens when the lungs are infected.



- Plague can be a very severe disease in people, with a case-fatality ratio of 30% to 60% for the bubonic type, and is always fatal for the pneumonic kind when left untreated.

Symptoms: Bubonic plague symptoms include

- sudden high fever and chills.
- Pains in the areas of the abdomen, arms, and legs.
- Headaches.
- Large and swollen lumps in the lymph nodes (buboes) that develop and leak pus.

Transmission:

*Y. pestis* is spread mostly by fleas on rodents and other animals.

It is transmitted between animals and humans by the bite of infected fleas, direct contact with infected tissues, and inhalation of infected respiratory droplets.

The incubation period of bubonic plague is usually 2 to 8 days.

**Treatment:**

- It can be treated and cured with antibiotics.
- Antibiotics that treat bubonic plague include Ciprofloxacin, levofloxacin, moxifloxacin, Gentamicin and Doxycycline.
- It can be fatal if it's not treated.

## Olive Ridley Turtles

The Andhra Pradesh government recently imposed a month-long ban on fishing in the 5-km radius of Hope Island to prevent the death of Olive Ridley turtles off Kakinada coast.

### About Olive Ridley Turtles

- They are the smallest and most abundant of all sea turtles found in the world.
- It gets its name from the olive green colouration of its carapace (shell).



- Scientific Name: *Lepidochelys olivacea*
- They are best known for their unique mass nesting, called Arribada, where thousands of females come together on the same beach to lay eggs.
- Distribution:
  - They are mainly found in the warm waters of the Pacific, Atlantic, and Indian oceans.
  - Odisha's Gahirmatha Marine Sanctuary is known as the world's largest rookery (a colony of breeding animals) of sea turtles.
- Features:
  - An adult typically measures between 62 and 70 cm in length and weighs about 35-45 kg.
  - They have one to two visible claws on each of their paddle-like flippers.
  - They are omnivorous, meaning they feed on both plants and animals.
  - They are solitary, preferring the open ocean.
  - These turtles spend their entire lives in the ocean, and migrate thousands of kilometers between feeding and mating grounds in the course of a year.
- Conservation Status:
  - IUCN Red List: Vulnerable
  - Wildlife Protection Act, 1972: Schedule 1
  - CITES: Appendix I

### Key Facts about Hope Island

- It is a tadpole-shaped island, located off the coast of Kakinada, Andhra Pradesh, in the Bay of Bengal.
- Hope Island is so named for providing a natural haven to sailors against the forces of wind and tide against the weary traveller.



- This island is young, as it was formed in the late 18th century, by the waters of the **Koringa River**, which is a **distributary of the River Godavari**.
- The area between Kakinada coast and Hope Island is known as Kakinada Bay.
- It acts as a natural barrier from storm surges and is a natural breakwater for the Kakinada coast. About Olive Ridley Turtles:
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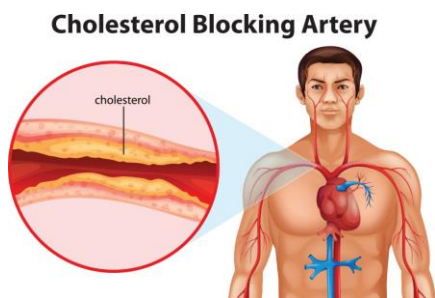
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### CITES

CITES, which stands for the Convention on International Trade in Endangered Species of Wild Fauna and Flora, is a global agreement among governments to ensure that international trade in specimens of wild animals and plants does not threaten the survival of the species. Although CITES is legally binding on the Parties – in other words, they have to implement the Convention – it does not take the place of national laws.

### HDL-C



HDL cholesterol is correlated with low cardiovascular disease (CV) risk, and it has been traditionally labelled as "good" cholesterol due to its negative correlation with CV disease.

### About Cholesterol

- **Cholesterol is a type of fat that circulates in blood.** It is essential for many functions in the body, such as making hormones, vitamin D, and bile acids. However, too much cholesterol can be harmful, as it can build up in arteries and increase the risk of heart disease and stroke.
- There are **two main types of cholesterol: low-density lipoprotein (LDL) and high-density lipoprotein (HDL).**

**LDL is often called the "bad" cholesterol** because it carries cholesterol from the liver to the cells and tissues, where it can accumulate and form plaques.

**HDL is often called the "good" cholesterol** because it carries cholesterol from the cells and tissues back to the liver, where it can be removed from the body.

HDL-C is the amount of cholesterol carried by HDL particles in blood. It is one of the markers that **doctors use to assess cardiovascular health.** Generally, **higher levels of HDL-C are associated with a lower risk of heart disease, while lower levels are associated with higher risk.**

### How does HDL-C protect the heart?

**It helps remove excess cholesterol from your arteries,** preventing or reversing plaque formation.

It has anti-inflammatory and antioxidant properties, reducing damage to the artery walls.

It improves the function of the endothelium, the inner lining of the arteries that regulates blood flow and clotting.

It inhibits the oxidation of LDL, which makes it more likely to cause plaque formation.

formation.

However, not all HDL particles are equally protective. Some HDL particles may be more effective at removing cholesterol from the arteries than others. Some HDL particles may even become dysfunctional and promote inflammation and



oxidation. Therefore, the quality and function of HDL may be more important than quantity.

### **How to measure and interpret HDL-C levels?**

**HDL-C levels are measured by a blood test**, usually as part of a lipid profile that also includes total cholesterol, LDL-C, and triglycerides. The normal range for HDL-C varies depending on age, gender, and other factors, but generally:

- For men, HDL-C levels below 40 mg/dL (1.0 mmol/L) are considered low, and levels above 60 mg/dL (1.6 mmol/L) are considered high.
- For women, HDL-C levels below 50 mg/dL (1.3 mmol/L) are considered low, and levels above 60 mg/dL (1.6 mmol/L) are considered high.

However, these ranges are not absolute, and other factors such as family history, lifestyle, and medical conditions may affect the risk of heart disease.

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