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Mahavir Jayanti

- Mahavir Jayanti is one of the most auspicious festivals in the Jain community.
- According to Jain texts, Lord Mahavira was born on the 13th day of the bright half of the moon in the month of Chaitra.
- As per the Gregorian calendar, Mahavir Jayanti is usually celebrated during the month of March or April.
- In 2020, Mahavir Jayanti was celebrated on 6th of April.
- This day marks the birth of Vardhamana Mahavira, who was the 24th and the last Tirthankara who succeeded the 23rd Tirthankara, Parshvanatha.
- A procession is called with the idol of Lord Mahavira called the Rath Yatra.
- Reciting stavans or Jain prayers, statues of the lord are given a ceremonial bath called abhisheka.

Lord Mahavira

- Mahavir was born to King Siddhartha of Kundagrama and Queen Trishala, a Lichchhavi princess in the year 540 BC in the Vajji kingdom, identical with modern day Vaishali in Bihar.
- Mahavira belonged to the Ikshvaku dynasty.
- There are several historians who believe that he was born in a place called Ahalya bhumi and the land has not been plowed for hundreds of years by the family that owns it.
- Lord Mahavir was named Vardhamana, which means “one who grows”.
- He abandoned worldly life at the age of 30 and attained ‘kaivalya’ or omniscience at the age of 42.
- Mahavira taught ahimsa (non-violence), Satya (truth), asteya (non-stealing), brahmacharya (chastity) and aparigraha (non-attachment) to his disciples and his teachings were called Jain Agamas.
- Ordinary people were able to understand the teachings of Mahavira and his followers because they used Prakrit.
- It is believed that the Mahavira passed away and attained moksha (liberation from the cycle of birth and death) at the age of 72 in 468 BC at

a place called Pavapuri near modern Rajgir in Bihar.

Jainism

- The word Jaina comes from the term Jina, meaning conqueror.
- Tirthankara is a Sanskrit word meaning 'Ford maker', i.e., one who is able to ford the river, to cross beyond the perpetual flow of earthly life.
- Jainism attaches utmost importance to ahimsa or non-violence.
- It preaches 5 mahavratas (the 5 great vows):

1. Ahimsa (Non-violence)
2. Satya (Truth)
3. Asteya or Acharya (Non-stealing)
4. Aparigraha (Non-attachment/Non-possession)
5. Brahmacharya (Celibacy/Chastity)

- Among these 5 teachings, the Brahmacharya (Celibacy/Chastity) was added by Mahavira.

- The three jewels or Triratna of Jainism include

1. Samyak Darshana (right faith).
2. Samyak Gyana (right knowledge).
3. Samyak Charitra (right conduct).

- Jainism is a religion of self-help.
- There are no gods or spiritual beings that will help human beings.
- It does not condemn the varna system.
- In later times, it got divided into two sects:

1. Shvetambaras (white-clad) under Sthalabahu.
2. Digambaras (sky-clad) under the leadership of Bhadrabahu.

- The important idea in Jainism is that the entire world is animated: even stones, rocks, and water have life.
- Non-injury to living beings, especially to humans, animals, plants, and insects, is central to Jaina philosophy.
- According to Jain teachings, the cycle of birth and rebirth is shaped through karma.
- Asceticism and penance are required to free oneself from the cycle of karma and achieve the liberation of the soul.
- The practice of Santhara is also a part of Jainism.
- It is the ritual of fasting unto death, Swetambara Jains call it Santhara whereas Digambaras call it Sallekhana.

SAMADHAN Challenge

- Recently, a mega online challenge, SAMADHAN has been launched to test the ability of students to innovate.
- It is launched by the Innovation Cell of the Ministry of Human Resources Development and All India Council for Technical Education (AICTE).
- Under the challenge, the participating students will search and develop measures against Coronavirus.
- The challenge will inspire students and faculty for novel experiments and discoveries providing a strong baseline of experimentation.
- The newly developed measures can be made available to the government agencies, health services, hospitals and other services for the quick solution of such epidemics.
- The challenge will also create awareness among citizens and motivate them to face challenges, prevent crises and help them get livelihood.
- The success of this program depends on the effectiveness of the ideas of participating contestants with ability to find solutions, technically and commercially.

Cytokines

- The immune systems in our bodies protect us from bacteria, viruses, and parasites by removing them from our systems.
- The immune system gets activated by things that the body does not recognise as its own.
- These things are called antigens, and include bacteria, fungi and viruses.
- An effective immune system response involves inflammation, an important and indispensable part of the process.
- For example, Inflammation is visible when one hurts one's knee or ankle — the area of this external injury becomes red and swollen.
- Immune system deploys white blood cells to the injured area to begin work on repairs.
- Without such an immune response, injuries would not heal, and infections would become deadly.
- Cytokines are inflammatory immunological proteins that are there to fight off infections and ward off cancers.
- The release of inflammatory mediators increases the blood flow to the area, which allows larger numbers of immune system cells to be carried to the injured tissue, thereby aiding the repairing process.
- Thus, inflammation has an important protective function.
- However, if this inflammatory response is not regulated, very dangerous

consequences can follow.

- This is when a 'cytokine storm' can be triggered.

Cytokine Storm Syndrome

- CSS is characterized by the overproduction of immune cells and the cytokines themselves because of a dysregulation in the process.
- A cytokine storm can occur due to an infection, auto-immune condition (when the body's immune system attacks healthy cells as in case of coeliac disease- an immune disorder that primarily affects the small intestine), or other diseases.
- Signs and symptoms include high fever, inflammation (redness and swelling), severe fatigue, and nausea.
- In the case of any flu infection, a cytokine storm is associated with a surge of activated immune cells into the lungs, which, instead of fighting off the antigen, leads to lung inflammation and fluid build-up, and respiratory distress.
- A severe immune reaction, leading to the secretion of too many cytokines in the bloodstream, can be harmful since an excess of immune cells can attack healthy tissue as well.
- The damage to the surrounding cells can be catastrophic, leading to sepsis and potentially, death.
- Sepsis occurs when the body's response to infection is out of balance, triggering changes that can damage multiple organ systems.
- Accumulating evidence suggests that a subset of patients with severe Covid-19 might have a "Cytokine Storm Syndrome" (CSS).
- Cytokine storms are not exclusive to coronavirus patients.
- It is an immune reaction that can occur during other infectious and non-infectious diseases as well.

Hydroxychloroquine

- Hydroxy-chloroquine is an oral drug used in the treatment of malaria and some autoimmune diseases such as rheumatoid arthritis.
- Malaria is a disease caused by mosquito bite of female Anopheles and spreads through parasites.
- Autoimmune diseases are in which the body's immune system attacks healthy cells.
- Rheumatoid arthritis is a chronic inflammatory disorder affecting many joints, including those in the hands and feet.
- Recent studies show that the HCQ drug alone or in combination with

azithromycin appears to reduce the virus quickly.

- Further, the study suggests that prophylaxis (treatment given to prevent disease) with hydroxy-chloroquine at approved doses could prevent SARS-CoV-2 infection.
- Although the drug has some side effects, it is linked to instances of cardiac arrhythmia and liver damage.
- Wide use may handicap the people's ability to fight the disease.
- Recently, India revoked its earlier ban on the export of malaria drug hydroxychloroquine (HCQ), which is being used to treat Covid-19.
- Earlier, the government of India placed HCQ on a restricted items list, and later put a blanket ban on any export of the drug.

Source: The Hindu, Indian Express, PIB

