



**Sleepy Classes**

Free. Regular. Quality.

---

# Daily News Discussion (DND)

28th - 30th August 2021

---

Visit our website [www.sleepyclasses.com](http://www.sleepyclasses.com) or

our [YouTube channel](#) for entire GS Course **FREE** of cost

Also Available: Prelims Crash Course | | Prelims Test Series

## Table of Contents

1. Mains Value addition.....	1
<b>2. Environment.....</b>	<b>2</b>
2.1.New Delhi Statement on Environment (PIB).....	2
2.2.Milky seas phenomenon (DTE).....	2
<b>3. Science &amp; Technology.....</b>	<b>4</b>
3.1.Specialized educator cells (DTE).....	4
3.2.Merger of supermassive black holes (IE).....	5
3.3.QSim – Quantum Computer Simulator Toolkit (PIB).....	6
<b>4. Economy.....</b>	<b>7</b>
4.1.Sweat equity rules (IE).....	7
<b>5. International Relation.....</b>	<b>8</b>
5.1.UN bans British stamps in Chagos island (TH).....	8
5.2.BRICS-Agricultural Research Platform (ARP).....	9
<b>6. Polity.....</b>	<b>10</b>
6.1.Milk crate challenge (IE).....	10
<b>7. Security.....</b>	<b>11</b>
7.1.Army endurance test (IE).....	11

### Note -

- The Newspaper clippings pasted in PDF are important from Mains point of view as it contains the fodder material for Mains Answer Writing.
- Also watch DND video lectures everyday @ 4 PM on Sleepy's YouTube channel in order to understand how to get the most out of everyday's Newspaper .

Click [here](#) to watch the following topics on YouTube

## 1. Mains Value addition

### Rights (PII)

#### Oil palm plan is a recipe for disaster

- Given the widespread destruction of rainforests and native biodiversity caused by oil palm plantations in Southeast Asia, environmental experts and politicians are warning that the Union government's move to promote their cultivation in the northeastern States and in the Andaman and Nicobar Islands can be disastrous.
- Impact on community ownership of tribal lands, as well as the fact that the oil palm is a water-guzzling, monoculture crop with a long gestation period unsuitable for small farmers.
- Union Agriculture Minister Narendra Singh Tomar giving an assurance that the land identified for oil palm plantations in the northeastern States is already cleared for cultivation.

### Rights (PII)

#### Women empowerment World bank

- World Bank review, which pointed that the **global average for the private rate of return (the increase in an individual's earnings) with just one extra year of schooling is about 9 percent**. While the **social returns** of an extra year of school are even higher – above 10 percent **at the secondary and higher education levels**.

### Rights (PII)

#### Education

#### Tuition Pandemic

- Indian educational corporates are creating a situation of tuition pandemic.

#### China policy

- Private tutoring businesses have to restructure as **non-profit companies**. They are banned from listing on the stock market or raising foreign capital.
- They are prohibited from offering tutoring classes on **weekends and school holidays**. Parents and students are being encouraged to report schools and teachers who make extra income through private tutoring.

### Rights (P-II/III)

#### Health

#### Active pharma ingredients (Dependence on china)

- Nearly 70% of the country's APIs are imported from China This dependence is around **90%** for certain life-saving antibiotics such as cephalosporins, azithromycin and penicillin

## 2. Environment

### 2.1. New Delhi Statement on Environment (PIB)

- BRICS countries have adopted the “**New Delhi Statement**” at the 7th meeting of the BRICS Environment Ministerial 2021.
- It is aimed at furthering the spirit of Cooperation for Continuity, Consolidation and Consensus in Environment among the BRICS Nations.
- Minister for Environment, Forest and Climate Change stated that India gives great importance to BRICS and said that 2021 is a **very crucial year not only for the BRICS** but for the whole world as well, as we have **UN Biodiversity COP 15 in October and UNFCCC COP 26 in November**
- BRICS Countries can play a **very significant role** in addressing the contemporary global challenges of climate change, biodiversity loss, air pollution, marine plastic litter, etc.

### BRICS

- BRICS is an acronym for the grouping of the world’s leading emerging economies, namely Brazil, Russia, India, China and South Africa.
- The acronym "BRICS" was initially formulated in 2001 by economist Jim O'Neill, of Goldman Sachs, in a report on growth prospects for the economies of Brazil, Russia, India and China – which together represented a significant share of the world's production and population.
- In 2006, the four countries initiated a regular informal diplomatic coordination, with annual meetings of Foreign Ministers at the margins of the General Debate of the UN General Assembly (UNGA).
- South Africa was invited to join BRIC in December 2010, after which the group adopted the acronym BRICS.
- The first BRIC Summit took place in 2009 in the Russian Federation and focused on issues such as reform of the global financial architecture.
- The BRICS Leaders’ Summit is convened annually.

### 2.2. Milky seas phenomenon (DTE)

- Scientists are using new satellite tech to find glow-in-the-dark milky seas of maritime lore

### Challenges and detection

- Milky seas are so elusive that it has been almost impossible to sample them.
- Satellites offer a practical way to monitor the vast oceans, but it takes a special instrument able to detect light around 100 million times fainter than daylight

- The **Day/Night Band** – planned for the National Oceanic and Atmospheric Administration’s new constellation of satellites
- The Day/Night Band’s high sensitivity also detected light emitted by air molecules.
- Finally, on a clear moonless night in early 2018, an odd swoosh-shaped feature appeared in the Day/Night Band imagery offshore Somalia

## Milky sea

- Unlike bioluminescence that happens close to shore, where small organisms called dinoflagellates flash brilliantly when disturbed, **luminous bacteria work in an entirely different way.**
- Once their **population gets large enough** - about 100 million individual cells per milliliter of water - a sort of internal biological switch is flipped and they all **start glowing steadily.**
- Luminous bacteria cause the particles they colonize to glow.
- Researchers think the purpose of this glow could be to **attract fish** that eat them.
- These **bacteria thrive in the guts of fishes**, so when their populations get too big for their main food supply, a fish's stomach makes a great second option.
- In fact, if you go into a refrigerated fish locker and turn off the light, you may notice that **some fish emit a greenish-blue glow - this is bacterial light.**
- Now imagine if a gargantuan number of bacteria, spread across a huge area of open ocean, all **started glowing** simultaneously. **That makes a milky sea.**
- While biologists know a lot about these bacteria, what causes these massive displays remains a mystery.
- If bacteria growing on algae were the main cause of milky seas, they'd be happening all over the place, all the time.
- Yet, per surface reports, **only about two or three milky seas** occur per year worldwide, mostly in the waters of the **northwest Indian Ocean and off the coast of Indonesia**

## Future

- Perhaps the most practical revelation is **how long a milky sea can last.**
- While some last only a few days, the one near Java carried on for over a month.
- That means that there is a chance to deploy research craft to these remote events while they are happening.
- That would allow scientists to measure them in ways that **reveal their full composition**, how they form, why they're so rare and what their ecological significance is in nature

## 3. Science & Technology

### 3.1. Specialized educator cells (DTE)

- As per recent study Specialized cells maintain healthy pregnancy by teaching the mother's immune system not to attack developing fetus

#### Key findings

- During pregnancy, immune educator cells teach the mother's immune system to recognize the developing fetus as part of her "**self**," protecting it from being attacked as something "**other**,"
- A **fetus shares a blood supply and immune system with its mother**, which presents unique challenges - the fetus is genetically different from the mother, and it also develops specialized organs like the placenta that might seem foreign to the mother's immune system
- **How her system learns not to attack the fetus** and placenta is incredibly important to understanding pregnancy and its common complications, like miscarriage

#### Educator cells

- In a process known as **immune self-education**, which happens in an organ called the thymus, specialized "**educator cells**" teach developing immune cells what not to attack by showing off a diverse array of the body's own proteins.
- Essentially, this process teaches immune cells what constitutes "**self**."
- These educator cells **require a unique protein called the autoimmune regulator, or Aire**, to teach the complete curriculum of the body's own proteins, and mutations in Aire lead to a devastating autoimmune disease.
- Previously, scientist discovered a **new class of educator cells living outside of the thymus**, predominantly in the lymph nodes and spleen, that make this same Aire protein.
- These are called **extrathymic Aire-expressing cells, or eTACs**, and suspected they might serve as a kind of "**continuing education**" for the immune system.
- The newest discovery is that **eTACs are essential for protecting pregnancy** by teaching the mother's immune system not to attack the fetus and placenta as something foreign.

#### Significance

- Pregnancy complications like **miscarriage are common**, but the cause is frequently a mystery.
- Understanding how the immune system works to protect pregnancy may help scientists and doctors better identify, and **hopefully prevent or treat, more of these pregnancy complications**.

- Understanding what role extrathymic Aire-expressing cells play in immune self-education may have implications for a wide range of diseases.
- While the thymus and its educator cells shrink and die off during normal development, **eTACs circulate around the body for the duration of one's life.**
- If researchers can understand their biology and function, physicians may be **able to treat autoimmune diseases** like juvenile diabetes, cancers that evade immune detection and organ transplants rejected by the immune system.

### 3.2. Merger of supermassive black holes (IE)

- Indian researchers have discovered **three supermassive black holes** from three galaxies merging together to form a **triple active galactic nucleus (AGN)**

#### About

- Scientists were studying the AGN in the two massive barred spiral galaxies NGC7733 and NGC7734 when they **detected unusual emissions from the centre of the latter and a curious movement of a large bright clump within it**, having a different velocity than that of NGC7733.
- As the third one was a separate galaxy, the scientists named it **NGC7733N.**
- All three merging black holes were part of galaxies in the Toucan constellation

#### Merger

- According to the researchers, a major factor impacting galaxy evolution is galaxy interactions which happen when galaxies move close to each other and **exert tremendous gravitational forces on each other.**
- During such galaxy interactions, the respective **supermassive black holes can get near each other.**
- The dual black holes start consuming gas from their surroundings and become dual AGN.
- If two galaxies collide, their black holes will also come closer by **transferring the kinetic energy to the surrounding gas.**
- The **distance between the blackholes decreases** with time until the separation is around a parsec (3.26 light-years).
- The two black holes are then unable to lose any further kinetic energy in order to get even closer and merge. This is known as the **final parsec problem.**
- The presence of a **third black hole can solve this problem.**
- **The dual merging blackholes can transfer their energy to the third blackhole and merge with each other**

- Many AGN pairs have been detected in the past, but **triple AGN are extremely rare**, and only a handful has been detected before using X- ray observations.
- However, scientist expects such **triple AGN systems to be more common in small merging groups of galaxies**.

### 3.3.QSim – Quantum Computer Simulator Toolkit (PIB)

- The Union Minister for Electronics & Information Technology has launched the country's first '**Quantum Computer Simulator (QSim) Toolkit**'.

#### About Qsim toolkit

- It enable Researchers and Students to carryout research in **Quantum Computing in a cost effective manner**
- The scientists of **IIT Roorkee have developed QSim toolkit** with the assistance of IISc Bangalore, was supported & funded by MeitY
- It would function as a significant device in studying and understanding the sensible features of programming utilizing Quantum Computer systems.
- QSim Toolkit will **permit researchers and college students** to write down and debug quantum code that's important for growing quantum algorithms.

#### Key Features of QSim:

- **Intuitive UI:** QSim offers a robust QC Simulator that allows students/ researchers to create Quantum programs, visualize the instant circuit generation and simulated outputs.
- **Simulate noisy Quantum logic circuits:** Helps simulate Quantum circuits with and without noise and test how well various algorithms work with imperfect quantum components. This is essential to simulate real-life conditions.
- **Pre-loaded Quantum algorithms and Examples:** QSim comes loaded with Quantum programs and algorithms, providing a head start to the users.

#### QSim - Offering Models

- PARAM SHAVAK QSim - Standalone system with Quantum Simulator in a box
- PARAM QSim Cloud - Available on cloud using HPC infrastructure PARAM SIDDHI AI (developed and deployed under NSM program)

## 4. Economy

### 4.1. Sweat equity rules (IE)

- The Securities and Exchange Board of India (SEBI) has brought into effect the **SEBI (Share Based Employee Benefits and Sweat Equity) Regulations, 2021**.
- SEBI has merged the SEBI (Share Based Employee Benefits) Regulations, 2014 (SBEB Regulations) and the SEBI (Issue of Sweat Equity) Regulations, 2002 (Sweat Equity Regulations).

#### Changes

- The new rules will be applicable **only to listed companies** as these have been framed by SEBI, which only regulates listed companies.
- Companies will now be **allowed to provide share-based employee benefits to employees**, who are exclusively working for such a company or any of its group companies including a subsidiary or an associate.
- It is expected to not only help companies to better use share-based employee benefits for retaining employees for a longer period, but also **imbibe a sense of responsibility and ownership** in the employee that will push him/her to work for the growth of the company
- To provide **immediate relief to an employee** or his/her family in instances of permanent incapacity or death, the regulations have dispensed with the **requirement of a minimum vesting period and lock-in period (minimum 1 year) for all share benefit schemes**.
- Further, in case of companies listed **on the Innovators Growth Platform (IGP)**, the **yearly limit will be 15% and overall limit will be 50% of the paid-up capital** at any time. It will be applicable for **10 years from the date of the company's incorporation**.

## 5. International Relation

### 5.1. UN bans British stamps in Chagos island (TH)

- Mauritius has welcomed the **UN postal agency's decision** to ban British stamps from being used on the Chagos archipelago, calling it a victory for the island nation in its dispute with London.
- The vote by the Universal Postal Union (UPU) follows a longstanding spat between Mauritius and Britain over the Chagos Islands, where London and Washington operate a joint military base.
- This is another big step in favour of the recognition of the sovereignty of Mauritius over the Chagos.
- The UPU will **stop registering, distributing and transmitting stamps** bearing the words British Indian Ocean Territory (BIOT), the name given by Britain to the archipelago.

#### Uk response

- Britain insists the archipelago belongs to London and has renewed a lease agreement with the U.S. to use Diego Garcia, the largest of the islands, until 2036.

#### Background

- In the 19th century, Chagos were governed from Mauritius, which was a British Colony
- **After Mauritius gained independence** from the UK in 1968, the United Kingdom refused to return the Chagos Islands to Mauritius claiming in petitions submitted to the Permanent Court of Arbitration that the island was required to "accommodate the United States' desire to use certain islands in the Indian Ocean for defence purposes".
- The largest island on the Chagos Islands archipelago, **Diego Garcia, is where the US and the UK operate a large military base** and was also used as a US military base for the US-led attacks against Afghanistan and Iraq in the 2000s.
- However, in 2015, Mauritius initiated legal proceedings in these matters against the **United Kingdom in the Permanent Court of Arbitration at The Hague in the Netherlands.**
- In June 2017, at the **UN General Assembly**, 94 countries voted in support of Mauritius' resolution to seek an advisory opinion on the legal status of the Chagos Islands from the International Court of Justice in The Hague.
- In the 2020 year, the UN General Assembly **adopted a resolution recognising that "the Chagos Archipelago forms an integral part of the territory of Mauritius"** and urged UN agencies "to support the decolonisation of Mauritius

#### International Court of Justice

- In February 2019, the International Court of Justice (ICJ), ordered the UK to return the Chagos Islands to Mauritius "**as rapidly as possible**".

- After the ICJ ruling, the **United Kingdom** said that the ICJ ruling was “**an advisory opinion, not a judgment**” and claimed that “the defence facilities on British Indian Ocean Territory help to protect people here in Britain and around the world from terrorist threats, organised crime and piracy.”

## India

- India was among nations to vote in **favour of a UN General Assembly resolution** that demanded the UK withdraw its “colonial administration” from the Chagos Archipelago unconditionally.

## 5.2.BRICS-Agricultural Research Platform (ARP)

- Recently, the Union Minister for Agriculture and Farmers Welfare has announced the operationalization of **BRICS-Agricultural Research Platform (ARP)**.
- The platform was established **at the 11th meeting of BRICS Agriculture Ministers** under the theme BRICS Partnership for Strengthening Agrobiodiversity for Food Security and Nutrition

### BRICS-Agricultural Research Platform (ARP)

- It is a global platform **for science-led agriculture** will help in addressing the issues of world hunger, undernutrition, poverty and inequality
- It is prepared and set up in India for **strengthening the cooperation** in the field of **agricultural research** & innovations amongst the BRICS member States.
- The Coordinating Centre of the BRICS-ARP is housed at NASC Complex, Pusa under the governance of Department of Agricultural Research & Education/ICAR.
- Indian Council of Agricultural Research(**ICAR**) is the **focal organization from India**.

### Indian Council of Agricultural Research (ICAR)

- It is an autonomous organisation under the Department of Agricultural Research and Education (DARE).
- It was established on **16 July 1929 as a registered society** under the Societies Registration Act, 1860 in pursuance of the report of the Royal Commission on Agriculture.
- It is the apex body for co-ordinating, guiding and managing research and education in agriculture including horticulture, fisheries and animal sciences in the entire country.
- The ICAR has its headquarters at New Delhi.

## 6. Polity

### 6.1. Milk crate challenge (IE)

- The 'milk crate challenge', an injurious new trend that brings back memories of the equally regrettable 'tide pod challenge', has swept social media in the US and left doctors concerned.

#### About Milk crate challenge

- The viral task involves stacking milk crates into a **pyramid-shaped wall**, then trying to **climb to the top from one side** and proceeding to descend towards the other while balancing the crates underneath—most often ending in funny but dangerous falls
- Because of the instability of the milk crates, the challenge ends up in most people tumbling down, and doctors are now calling it a public **health hazard** because of the swelling number of people coming to emergency rooms to treat injuries from the task.
- It was because of these **concerns that TikTok**— which although banned in India is still legal in most other parts of the world, including the US – decided to remove content related to the challenge

## 7. Security

### 7.1. Army endurance test (IE)

- **One soldier died and more than three dozen had to be hospitalised** for heat stroke symptoms after taking part in a Corps Level Recce Troop Competition **organised by the Army at the Mamun Military Station near Pathankot a week back.**
- The Mamun-based Infantry Division of the Army had organised a recce troop competition in which all armoured and mechanised units of the Corps were taking part.
- The Division falls under Army's 9 Corps, which is headquartered in Himachal Pradesh's Yol.

#### What is a recce troop?

- Reconnaissance or recce troop is a section level **sub unit in every armoured regiment** and mechanised infantry battalion of the Army. A section means that it comprises approximately one officer and 30 jawans.
- The recce troop is supposed to be the **eyes and ears of the unit** as well as the higher formations as, in a war, they are supposed to operate ahead of the main unit and keep an eye on the activities of the enemy.
- The recce troop is equipped with light four-wheeled vehicles and also have specialised equipment, which can help keep a tab on the enemy forces in the area.
- The **soldiers** who form part of the recce troop are supposed to be among the **best in the unit** and capable of operating in highly adverse conditions.

#### Recce troops competition

- A recce troops competition, as the name suggests, is an **inter-unit competition** in which the recce troops of the respective units are pitted against each other to test their skills
- It has conducted many such events and even participated and been adjudged the best in several, these skills may involve **mapping a certain area, marking a helipad in advanced location near enemy location, locating and identifying enemy resources**, negotiating to pre-identified points on a map's grid location within a specified time frame, ability to read the signboards written in the enemy's native language and physical endurance of the officers and jawans who are taking part in the competition
- In the competition held at Mamun Military Station, **11 officers, 11 JCOs and 120 jawans were taking part.** It was in the endurance run part of the competition that the heat stroke affected several participants.

#### Instructions regarding extreme weather conditions for such competitions

- There are weather related restrictions issued at the Command-level based on the terrain and weather conditions.



- These instructions are based on medical advice rendered by the Director General of Medical Services and are supposed to be followed to the maximum possible extent whenever physical training activities are undertaken.
- These instructions also cover heat and humidity levels and the time of the day at which such activities can be undertaken under close supervision and monitoring