

Mindmaps4IAS

UPSC CSE & State PSC

DAILY PIB

Summary Notes

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Melatonin

Scientists have proved that Nano-formulation of Melatonin could be therapeutic solution for **Parkinson's disease (PD)**.

- It could be a potential inducer of **mitophagy** to mitigate **PD**.
 - **Mitophagy** identifies and removes dysfunctional **mitochondria** and reduces oxidative stress.
- **PD** is a neurological disorder caused by the death of **dopamine-secreting neurons** in the brain.

About Melatonin

- A **neurohormone** secreted from the **pineal gland**, an endocrine gland present in the brain in response to darkness.
- Regulates the sleep-wake cycle (part of **circadian rhythms**) and is used to treat insomnia (sleep disorder).
 - Circadian rhythms are the physical, mental, and behavioral changes an organism experiences over a 24-hour cycle.
- Being **exposed to light at night** can block melatonin production.

What is Parkinson's Disease (PD)?

1. Parkinson's disease is a **brain disorder** where **dopamine-producing brain cells die**, leading to **problems with movement, such as shaking, stiffness, and trouble with balance**.
2. The death of these cells is caused by the **build-up of a protein called alpha-synuclein**.
3. While current treatments help **manage symptoms, they do not cure the disease, so there is a need for better treatments**.

Annual Survey of Unincorporated Sector Enterprises (ASUSE) for 2023-24

The Annual Survey of Unincorporated Sector Enterprises (ASUSE) for October 2023 – September 2024 highlights key economic characteristics of non-agricultural establishments in sectors like manufacturing, trade, and services.

Key Features and findings:

- **Objective:** Measures economic characteristics of unincorporated non-agricultural establishments, excluding construction, for policymaking and national accounts.
- **Growth in Establishments:** Number of establishments increased by 12.84% to 7.34 crore, with a rise in female-owned establishments to 26.2%.
- **GVA Growth:** Gross Value Added (GVA) increased by 16.52%, driven by the services sector.
- **Labour Productivity:** Over 12 crore workers employed, with GVA per worker rising by 5.62%.
- **Digital Adoption:** 26.7% of establishments now use the internet, up from 21.1% in 2022-23.

Significance:

- Contributes to employment, GDP, entrepreneurship, and the domestic supply chain, supporting both the unincorporated and incorporated sectors.

Unincorporated Sector Enterprises:

- These are units not incorporated as separate legal entities, with owners personally liable for debts and obligations. They play a critical role in the economy but cannot engage in transactions independently.

The unincorporated sector is vital for economic growth, employment, and digital transformation, strengthening both entrepreneurship and the national economy.