

Loud music may damage your hearing before you realise it

Prelims: General Studies Paper - 1
Current events of national and international importance

Mains: General Studies - 2
Conservation, environmental pollution and degradation, environmental impact assessment.

1. Context

- Recent studies show long **exposure to very loud music at concerts and festivals** can cause permanent hearing damage.
- This **damage is often not detected by normal hearing tests**, even though hearing clarity may be affected.

2. What did the study find?

- Researchers from Ghent University, Belgium studied **cochlear synaptopathy**, a type of **hearing damage where the connections between the ear and the brain are harmed**.
- It **damages the synapses between inner ear hair cells and auditory nerves**.

A **synapse** is a tiny **gap between two nerve cells** (neurons) that acts as a communication bridge. It is the point where a signal passes from one neuron to another neuron, or to a muscle or gland

- This **leads to hidden hearing loss**, where hearing seems normal but understanding speech is difficult.

3. Methodology and Evidence

- Researchers measured real-world noise exposure using personal sound dosimeters (devices that **measure how much sound a person is exposed to over time**).
- Hearing tests were conducted before and after** people attended concerts.

- This **method provided objective and accurate data**, instead of relying on participants' memory.
- Many **attendees reported muffled hearing after events**, showing stress on the auditory system.
- Continuous exposure to sound levels above 80 dB** (decibels, a unit used to measure sound intensity) can damage hair cells, synapses, or both.

4. Implications

- Hidden hearing loss occurs** even in countries with strict noise regulations.
- In India, **poor enforcement may increase the risk**.
- Cochlear synaptopathy can act as an early warning sign before obvious hearing loss appears.
- Reliable diagnostic tests are limited**, highlighting the need for better clinical tools.

5. Way Forward

- Develop better hearing tests** to detect hidden damage early.
- Promote regular use of hearing protection** at concerts and noisy places.
- Increase public awareness**, especially among young people, about long-term risks of loud music.
- Clear sound limits and monitoring** (using decibel standards) should be made mandatory by law.

Why has AYUSH got a major push in Budget?

Prelims: General Studies Paper - 1
Economic and Social Development-Sustainable Development, Poverty, Inclusion, Demographics, Social Sector Initiatives, etc.

Mains: General Studies - 2
Government policies and interventions for development in various sectors and issues arising out of their design and implementation.

1. Context

- The **AYUSH sector** has received a major policy push in the **Union Budget 2026-27**, alongside the **India-EU Free Trade Agreement (FTA)**.
- It signals a shift of AYUSH from a **welfare-oriented health system** to a **regulated, export-driven economic sector** with global ambitions and stricter oversight.

2. Budgetary Push to AYUSH

- Allocation increased to **₹4,408 crore** (2026-27) from **₹3,992 crore** (2025-26) and **₹2,122 crore** (2020-21), showing **sustained prioritisation**.
- **Three new All-India Institutes of Ayurveda** announced, modelled on AIIMS, to integrate treatment, research, and teaching, signalling institutionalisation.
- **National AYUSH Mission** funding raised by **66% to ₹1,300 crore** to:
 - ➔ **Modernise AYUSH hospitals** and dispensaries
 - ➔ **Co-locate AYUSH clinics** in modern hospitals
 - ➔ **Reorient centres** towards preventive healthcare
- Funds allocated to **upgrade AYUSH pharmacies and drug-testing laboratories**, addressing quality concerns.
- Upgradation of the **WHO Global Traditional Medicine Centre, Jamnagar**, positions India to shape global standards.
- Launch of **Bharat-VISTAAR**, a **multilingual AI assistant**, to support medicinal-plant farmers with quality advice, price signals, and export certification.

3. India-EU FTA and Global Opportunities

- **Indian AYUSH practitioners can offer services in EU countries** without specific traditional-medicine regulation, using Indian qualifications.
- Indian firms receive **legal certainty to open Ayurvedic clinics and wellness centres** across 27 EU countries.
- **Mutual recognition** of some lab results and safety certifications **lowers export barriers for AYUSH products**.
- Recognition of India's **Traditional Knowledge Digital Library** prevents misappropriation of traditional formulations.

4. Capabilities, Challenges, and Implications

- AYUSH already has hospitals, research councils, regulatory bodies, and national institutes, supported mainly through the **National AYUSH Mission** and co-location policy.
- However, **scientific credibility remains contested**:
 - ➔ Many treatments lack **randomised controlled trials**.
 - ➔ Reports of **lead and mercury contamination** have triggered international health advisories.
 - ➔ **"Mixopathy"** and permission for **Ayurveda postgraduates to perform 58 surgical procedures** have led to protests and pending Supreme Court cases.
- The sector is projected at **\$26.5 billion (₹2.3 lakh crore) in 2026**, with **80%** driven by **startups and MSMEs**, explaining the economic rationale.
- The push may attract global markets but will also enforce **higher evidence, accountability, and regulatory discipline** within India.

How is India tackling mental health crisis?

Prelims: General Studies Paper - 1
Current events of national and international importance

Mains: General Studies - 2
Issues relating to development and management of Social Sector/Services relating to Health, Education, Human Resources.

1. Context

- The **Economic Survey highlighted India's growing mental health crisis** linked to **digital addiction**, especially among children and adolescents.
- The recent Union Budget **proposed setting up a second National Institute of Mental Health and Neuro Sciences (NIMHANS) in north India** and upgrading institutions in Ranchi and Tezpur to improve access.

2. India's Mental Health Burden

- India accounts for **nearly one-third of global suicides, depression, and addiction cases**.

- Suicide is a **leading cause of death among people aged 15-29 years**.
- **Economic loss due to mental health conditions is estimated at \$1.03 trillion (2012–2030)**.
- About **70–92% of people with mental disorders do not receive proper treatment** due to stigma, lack of awareness, and shortage of professionals.
- India has **0.75 psychiatrists per 1 lakh people, far below the WHO recommendation of 3 per 1 lakh**.

3. Infrastructure and Services Status

- **Over 1.73 lakh health centres upgraded to Ayushman Arogya Mandirs** with mental health services.
- **Around 47 postgraduate departments and 20 centres of excellence established** for training and treatment.
- **Tele MANAS operates across 36 States/UTs** with multiple support cells and mentoring institutes.

4. Key Gaps and Shortfalls

- **Mental health spending remains below 2% of the health budget**, which itself is only about 2% of GDP.
- Budget allocations **favour tertiary institutions, while community-based and early-intervention care remain underfunded**.
- Poor utilisation of allocated funds at the national level.
- **Severe shortage of trained professionals** has resulted in a 95% gap in access to care.

5. Way Forward

- **Shift focus from only curative, specialist-led care to preventive** and community-based models.
- Ensure **affordable, continuous, and timely treatment**.
- **Integrate mental well-being into school education** and strengthen workplace mental health policies.
- **Adopt a community approach** to reduce stigma and improve access.

Why is Dreamliner's fuel system under watch?

Prelims: General Studies Paper - 1
Indian Polity and Governance-Constitution, Political System, Panchayati Raj, Public Policy, Rights Issues, etc.

Mains: General Studies - 3
Infrastructure: Energy, Ports, Roads, Airports, Railways etc.

1. The Incident

- On **February 1, 2026, Air India Flight AI132** (London Heathrow–Bengaluru) reported an issue before departure.
- One **fuel control switch (FCS)** on the **Boeing 787-8** moved from **"Run" to "Cutoff"** unexpectedly.
- The switch **locked properly on the third try when the crew checked it**.
- The crew **continued the flight safely**, covering **8,000+ km** without further problems

2. Investigation and Technical Findings

- The **Directorate General of Civil Aviation (DGCA)** examined the incident.
- The switch initially **did not remain positively locked**, but later functioned **normally and remained stable**.
- **No abnormal engine parameters, warnings, or system alerts** were detected.
- After landing, **Air India engineers inspected the switches**, and both were found **functioning satisfactorily**.
- The aircraft was **temporarily grounded in Bengaluru** and later **cleared for operations**.

3. Safety Concerns and Regulatory Context

- The **Safety Matters Foundation, a non-profit and independent aviation safety think tank in India**, called for a **transparent investigation**.
- It referenced a **2018 U.S. Federal Aviation Administration Safety Alert** warning that **fuel control switches could malfunction** and risk **accidental engine shutdown**.

- The incident gained attention because of the **June 12, 2025 crash of Air India Flight AI171**, also involving a **Boeing 787-8**.
- **Boeing recommended additional checks**, and **DGCA advised Air India to circulate OEM [original equipment manufacturer] operating procedures** to pilots.

4. Industry Response and Safety Perspective

- **Air India** stated it would **follow DGCA guidance and internal safety protocols**.
- The airline operates **26 Boeing 787-8 and 7 Boeing 787-9 aircraft**, all of which were inspected again.
- **Boeing** said it is **supporting Air India's review**.
- Aviation experts highlighted the importance of **human-machine interface design** and **locking mechanisms in fuel control switches**.
- These systems are considered **highly reliable with strong safety performance** across aircraft fleets.

KEYWORDS

Tele MANAS

- Tele MANAS (Tele Mental Health Assistance and Networking Across States) is a **national tele-mental health programme launched in 2022 by the Ministry of Health and Family Welfare**.
- It aims to **provide universal access to equitable, affordable, and quality mental health care through a 24x7 tele-mental health service** under the National Mental Health Programme.
- It follows a two-tier system
 - ➡ **Tier-1** consists of State Tele MANAS cells offering tele-counselling and tele-consultation by trained professionals.
 - ➡ **Tier-2** includes specialists from District Mental Health Programme (DMHP) facilities and medical colleges, providing physical and video consultations via e-Sanjeevani.
- The **Tele MANAS mobile app and video services also provide 24x7 mental health support in 10 regional languages**, along with English and Hindi.

- It also includes the **"Asmi" chatbot**, which helps users interact easily and get guidance.

Medaram Jatara



- Medaram Jatara (Sammakka-Saralamma Maha Jatara) is a **biennial tribal festival held at Medaram village** in the **Etunagaram Wildlife Sanctuary, Mulugu district, Telangana**.
- It is regarded as **Asia's largest tribal congregation** and is rooted in the traditions of the **Koya tribe**.
- The Jatara honours the **forest goddesses Sammakka and Saralamma**, commemorating their valour and sacrifice.
- It was declared a **State festival in 1998**.
- The festival begins on **Magha Suddha Pournami** (full moon day) and lasts four days.
- A unique feature is the **ceremonial gun salute by the District Superintendent of Police**, signifying the State's formal welcome.

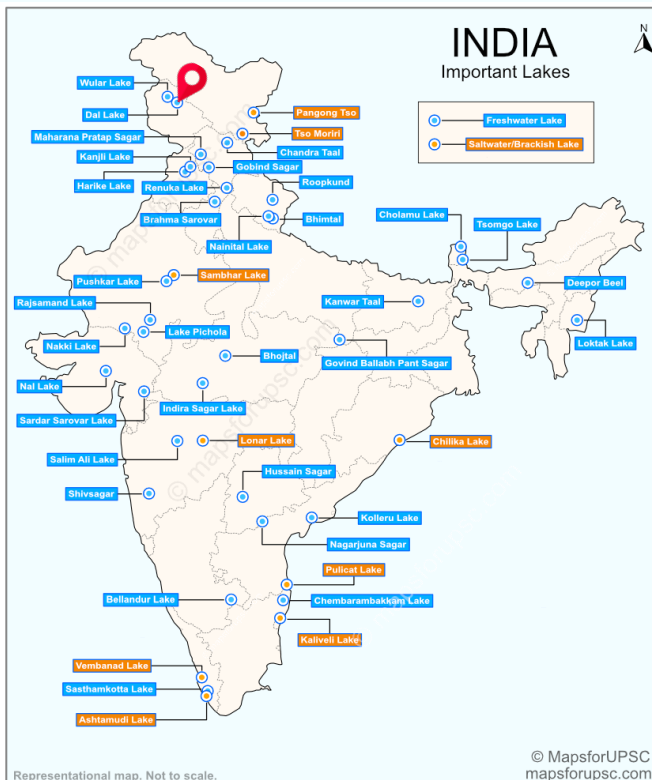
Parkinson's disease (PD)

- **Parkinson's disease (PD)** is a **movement disorder** that occurs when **nerve cells in the brain produce insufficient amounts of dopamine**, an important **brain chemical responsible for controlling movement**.
- In some cases, the disease may be **genetic**, but **most cases are not hereditary**. **Environmental chemical exposure** is also believed to be a possible **risk factor**.

- As the condition progresses, individuals may experience **difficulty in walking, speaking, and performing everyday tasks.**
- Other associated problems can include **depression, sleep disturbances, and difficulty chewing, swallowing, or speaking.**
- There is **no single diagnostic test** for **Parkinson’s disease**, which makes **diagnosis challenging.**
- Doctors typically rely on a **medical history** and a **neurological examination** to identify the condition.

Places In News

Dal Lake



- **Dal** is a lake in Srinagar, the **summer capital of Jammu and Kashmir.**
- The term **“Dal Lake”** is technically a misnomer, since **“Dal”** means lake in Kashmiri.

- This **urban lake** plays a crucial role in **tourism and recreation in Kashmir** and is often called the **“Jewel in the crown of Kashmir”** or **“Srinagar’s Jewel.”**
- The lake is also an important resource for **commercial activities**, particularly **fishing and water-plant harvesting.**
- It covers an area of about **18 square kilometres** and forms part of a **natural wetland ecosystem** spread across **21.1 square kilometres**, including its **floating gardens.**
- These **floating gardens**, locally known as **“Raad”**, are especially known for **lotus blooms during July and August.**
- The wetland is divided by **causeways** into **four basins- Gagribal, Lokut Dal, Bod Dal, and Nagin** (with Nagin sometimes considered a separate lake).
- Both **Lokut Dal** and **Bod Dal** contain **central islands**, called **Rup Lank (Char Chinari)** and **Sona Lank** respectively.
- Another distinctive feature of the lake is the presence of **houseboats**, which are **closely associated with Dal** and serve as **tourist accommodation in Srinagar.**

