

#### Article 1 - Pension Reforms in India

#### Why in News?

- India currently has 153 million people aged 60+, projected to reach 347 million by
- Nearly 88% of elderly workers are engaged in the informal sector without any guaranteed pension or social security.
- Policy attention has sharpened due to:
  - Expansion and redesign of Atal Pension Yojana (APY) and National Pension System (NPS)
  - Launch of the e-SHRAM database
  - New Labour Codes redefining "wages" for PF/pension-related calculations
- Surveys:
  - LASI (2017–18) and Comprehensive Annual Modular Survey (2022–23) show:
    - 42% of people aged 55+ have never heard of NPS
    - 63% of the elderly lack basic internet skills

#### Relevance

#### GS Paper II – Governance & Social Justice

- Welfare architecture for vulnerable elderly and informal workers
- Design and performance of IGNOAPS, NPS, APY, e-SHRAM
- Role of Labour Codes in wage-linked social protection
- Digital exclusion and implementation gaps
- Institutional mechanisms for old-age security

#### GS Paper I – Indian Society

- Informal labour and its consequences for old age

  Gendered vulnerabilities in late "

#### GS Paper III – Economy

- Household savings patterns and capital market deepening
- Pension funds as long-term sources for infrastructure finance
- Fiscal implications of **Old Pension Scheme (OPS)** vs contributory pensions

#### **Basics: What is a Pension System?**

**Pension** = regular income in old age to ensure livelihood security after retirement.



- Two main categories:
  - 1. **Social Assistance (Non-contributory)** fully funded by government
  - 2. **Contributory Pensions** funded by individual (and/or employer/state) contributions

# India's Demographic & Structural Challenge

- Rapid population ageing + dominance of informal employment.
- Among those aged 55+:
  - Women in informal work: 75.6%
  - Men in informal work: 68%
- Implications:
  - No employer-backed pensions
  - No guaranteed income after retirement
  - Compelled to work in old age → higher **poverty risk** and erosion of **dignity**

# Phase I - Welfare-Oriented Social Assistance

# Indira Gandhi National Old Age Pension Scheme (IGNOAPS, 1995)

- Beneficiaries: BPL elderly (initially 65+).
- Nature: Non-contributory social pension.
- Significance:
  - First nationwide attempt to assure a minimum pension to the elderly.
- Limitations:
  - Very low pension amount.
  - No incentive for savings or investment behaviour.

#### Old Pension Scheme (OPS - pre-2004)

- Defined benefit, fully funded from the budget.

  Problem:
- - Mounting **fiscal stress** with increasing life expectancy and pension liabilities.

#### Phase II - Shift to Contributory Pensions

#### National Pension System (NPS, 2004)

- Replaced OPS for new government recruits.
- Key features:
  - **Defined contribution**, market-linked returns.



- o Covers government and corporate sector employees.
- Recent extensions ("NPS 2.0" type features):
  - o 100% equity choice option
  - Multiple scheme framework targeting younger, risk-tolerant savers

#### Atal Pension Yojana (APY, 2015–16)

- Target group: informal sector workers aged 18–40.
- Features:
  - Periodic contributions (monthly/quarterly/half-yearly).
  - Assured minimum pension by government.
- Impact:
  - Promotes a formal savings habit among low-income groups.
  - Encourages basic retirement planning.

# Phase III - Bridging Formal-Informal Divide

#### e-SHRAM Portal

- National registry of informal workers.
- Objectives:
  - Map workers to existing welfare schemes.
  - Improve identification and eligibility verification for social security.
- Challenges:
  - Errors in linkage of Aadhaar, bank accounts, and mobile numbers.
  - Severe digital exclusion 63% of elderly unable to use internet, leading to risk of exclusion errors.

# **Role of Labour Codes in Pension Security**

- New Codes introduce a uniform wage definition:
  - Basic pay must be at least 50% of total remuneration.
- Implications:
  - Higher base for PF, gratuity, and pension contributions.
  - Reduces employers' ability to keep wages low on paper by inflating allowances.

# Policy Evolution - Stepwise Logic

- Stage 1 Protection via Welfare: IGNOAPS, OPS.
- Stage 2 Behavioural Change: NPS and its variants.



- Stage 3 Inclusion of Informal Sector: APY, e-SHRAM.
- Current trajectory: Data-driven targeting + contributory, market-linked social security.

#### **Persistent Gaps**

- Low awareness: 42% of 55+ unaware of NPS.
- Coverage—access mismatch: schemes exist but are underutilised.
- Digital divide marginalises elderly from portal-based systems.
- Pension amounts (e.g., APY slabs) often inadequate against inflation and cost of living.

# Impact on Financial System

- Strengthens long-term savings and capital markets.
- Eases future old-age dependency pressure.
- Marks a movement from a purely welfare-based model to a participatory, contributory pension state.

# Article 2 – Swap App Mandates for Digital Literacy (Sanchar Saathi)

# Why in News?

- The Union government has **rescinded** its earlier order requiring all new smartphones to have the Sanchar Saathi app pre-installed.
- The rollback followed:
  - Strong criticism from civil society
  - Opposition protests
  - Digital rights groups' objections
- The episode lies at the intersection of:
  - Escalating cyber fraud
- Growing state surveillance capabilities

  Evolving privacy iurian
  - Evolving privacy jurisprudence

# Relevance

#### GS II - Polity & Governance

- Right to Privacy under Article 21 and the **Puttaswamy** framework
- Limits of executive orders without detailed statutory backing
- Balancing surveillance powers and civil liberties
- Trust in digital governance



# **GS III – Internal Security & Cybersecurity**

- Cyber fraud, "digital arrest" scams, OTP and UPI fraud
- Telecom and platform-level security reforms

#### **GS IV - Ethics in Governance**

- Informed consent vs digital coercion
- Ethical limits of "protective" surveillance
- Technological paternalism vs citizen autonomy

#### What is Sanchar Saathi?

- A telecom safety platform used for:
  - Reporting spam and fraudulent calls/messages
  - Blocking lost or stolen phones
  - Detecting misuse of mobile numbers
- Access modes:
  - o Web portal, SMS, USSD
- Integrated with CEIR (Central Equipment Identity Register) for device tracking and blocking.

#### What Did the Withdrawn Order Seek?

- Mandatory preloading of Sanchar Saathi on all smartphones.
- The app:
  - Would be non-removable
  - Would appear at first device startup
  - Would receive remote (over-the-air) updates
  - Was reportedly given access to sensitive permissions (phone, SMS, location, etc.)
- Effectively transformed a **voluntary user tool** into a **system-level state interface** with surveillance potential.

#### Puttaswamy Test - Where Did It Fall Short?

Under K.S. Puttaswamy (2017), privacy restrictions must meet:

- 1. Legality clear legal backing
- 2. **Necessity** no less intrusive alternative
- 3. **Proportionality** minimal intrusion for desired objective

Issues:



- Necessity: same goals already achievable via portal, USSD, SMS, and 1909 helpline.
- **Proportionality:** always-on, non-removable app more intrusive than necessary.
- Legality: no detailed legislation expressly authorising mandatory installation on all devices.

#### **Cyber Fraud Context**

- Global and domestic cyber fraud is rising (digital arrest scams, OTP theft, investment fraud).
- However, a serious problem does not automatically justify blanket surveillance across the entire population.

# **Existing Anti-Fraud Ecosystem in India**

- Sanchar Saathi + CEIR portals (already functional).
- TRAI DND app and 1909 for spam reporting.
- Previous controversy: older DND app versions sought extensive access to SMS and call logs; platforms like Apple restricted it → key lesson on permissions and privacy.

# Security Risk of Privileged, Non-removable Apps

- A privileged system app:
  - Becomes a high-value target for hackers.
  - If compromised, can be exploited at scale across millions of phones.
- Cybersecurity principle:
  - Centralised privileged apps create single points of catastrophic failure.

#### **Behavioural Cybersecurity vs Surveillance**

- Most scams exploit human factors: fear, confusion, fake official authority.
- Evidence (like the Kenya study) shows generic digital warnings alone do little to improve scam detection. TOMORRO' **ESTD 2022**
- Effective behavioural cybersecurity needs:
  - Continuous, localised, behaviour-specific awareness
  - Community and institutional participation

#### **Indian Models of Behavioural Cyber Awareness**

- RBI's e-BAAT and "RBI Kehta Hai" campaigns.
- State-level initiatives:
  - Cyber awareness vans, community meets, targeted campaigns (e.g., "Fraud ka Full Stop").
  - Some report measurable reductions in cybercrime.



#### **Core Governance Problem**

- Old mindset: "If you have nothing to hide, why worry?"
- Needed shift: "What is being collected, by whom, and how might it be used or misused?"
- Citizens must be partners in security, not mere subjects of surveillance.

# **Policy Direction – Three Pillars**

# 1. Platform & Network Regulation

 Stronger obligations for telcos, banks, fintechs to detect patterns and block fraud in real time.

# 2. Robust Reporting & Redress

 Strengthen 1930 and app-based reporting; ensure timely response and resolution.

# 3. Continuous Digital Literacy

 Long-term, local language, behaviour-focused education rather than one-time slogans.

# Article 3 - Draft Indian Statistical Institute (ISI) Bill, 2025

#### Why in News?

- On 25 September 2025, MoSPI released the Draft ISI Bill, 2025.
- The Bill aims to transform ISI from a registered society into a statutory body corporate.
- The proposal has sparked:
  - Protests by students and faculty
  - Opposition from parties such as TMC and CPI(M)
  - A formal letter seeking withdrawal from MP D. Ravikumar

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#### Relevance

#### **GS II – Polity & Governance**

- Autonomy of Institutes of National Importance (INIs)
- Statutory bodies vs registered societies
- Centre–State relations and cooperative federalism
- · Balancing oversight with institutional independence

#### What is ISI?

• Founded in 1931 at Kolkata by P.C. Mahalanobis.



- Initially registered under:
  - Societies Registration Act, 1860
  - Later under West Bengal Societies Registration Act, 1961.
- Declared **Institution of National Importance** via ISI Act, 1959.
- Multi-campus institution (~1,200 students, 6 centres) teaching:
  - Statistics, Mathematics, Economics, Computer Science, OR, Cryptology, Quality Management.

#### Why is ISI Strategically Important?

- Central to India's official statistical system.
- Origin of NSSO and many key survey methodologies.
- Contributed to India's planning models (Mahalanobis model).
- Strong global academic reputation (e.g., C.R. Rao, S.R.S. Varadhan).

# What Does the Draft Bill Propose?

# (A) Change of Legal Form

- From: Society
- To: Statutory body corporate, directly governed by central legislation

### (B) New Governance Framework

- Introduces a **Board of Governors (BoG)** as the main authority.
- Previous structure:
  - o 33-member Council, with elected internal representation (faculty, workers).
- Under the draft:
  - Zero elected representatives from ISI; BoG largely composed of Union government nominees. OF TOMORROW

# (C) Funding and Revenue

- Section on "power to generate revenue":
  - Through higher fees, consultancy, sponsored projects, etc.
- Signals a tilt toward a more **corporate-style** funding approach.

#### Why Are Academics Protesting?

#### 1. Erosion of Autonomy

- Society status allowed self-framed bye-laws and academic governance.
- Statutory corporate structure places power in a government-dominated BoG.

#### 2. Risk of Political Influence



 Appointment processes could be shaped by ideological or political considerations.

#### 3. Threat to Basic Research

 Corporate-style funding may push short-term, applied projects over fundamental research in statistics and mathematics.

#### 4. Federalism Concerns

Central law would override the role of West Bengal's registration law.

#### 5. **Democratic Deficit**

No elected academic representation in the new governance model.

#### **Government's Justification**

- Goal: make ISI a top-ranking global institution by its centenary (2031).
- Claims reforms are based on multiple review committees, including Mashelkar Committee (2020).
- Argues that governance overhaul and diversified funding are needed for global competitiveness.

# **Core Policy Tension**

- State's view: strong statutory framework + central leadership → efficiency and global status.
- Academic view: institutional freedom, collegial governance, and academic independence are non-negotiable.

#### **Wider Implications**

- Affects trust in:
  - Independence of official statistics
  - Integrity of policy-related data
- Comes at a time when India's data transparency is already under scrutiny.

# Article 4 - Brain-Stem Death (BSD) and Organ Donation

#### Why in News?

- Ongoing debate about legal ambiguities in Brain-Stem Death (BSD) certification under the Transplantation of Human Organs and Tissues Act, 1994.
- India's deceased donor rate is extremely low:
  - India (2023): 0.77 donors/million
  - Spain (2023): 49.38 donors/million
- Around 5 lakh people in India die each year while waiting for organs.



- Calls to:
  - Expand donor pool
  - Simplify legal procedures
  - Clarify certification and consent rules

# Relevance – GS III (Health)

- Organ donation as a public health and resource optimisation measure
- ICU capacity, trained transplant coordinators, and system efficiency
- Ethical end-of-life care and ICU management

# **Legal Framework for Transplantation**

- Governed by THOTA, 1994.
- Two types of transplantation:

# (A) Deceased Donor

- Organs from patients certified as **brain-stem dead**.
- Heart may continue beating on a ventilator, but legally considered dead.

# (B) Living Donor

Organs taken from healthy donors under strict legal safeguards.

#### What is Brain-Stem Death?

Defined in law as irreversible, permanent cessation of all brain-stem functions.

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- Brain-stem regulates:
  - Breathing
  - Consciousness
  - Vital reflexes
- Once brain-stem fails irreversibly, the person is biologically dead even if machines Why India's Transplant Numbers Are Low OF TOMOR

- Limited ICU and BSD-certified facilities.
- Shortage of trained staff and coordinators.
- Legal and procedural confusion.
- Low public awareness and consent rates.

# **Key Legal Questions**

1. Is BSD equivalent to death?



 Yes, under THOTA, BSD and cardio-pulmonary death both fall under "deceased person."

# 2. What if family refuses organ donation after BSD?

- Law defines death, but not compulsory withdrawal of life support.
- Time of death remains BSD certification time, irrespective of later family decisions.

# 3. Are two separate death certificates necessary?

 In principle, no – BSD certificate is legally sufficient for death registration; a second certificate is redundant.

#### **Link with Death Registration Law**

- Registration of Births and Deaths Act, 1969 uses a similar concept: permanent disappearance of signs of life.
- Form 4 records cause/mode of death; BSD maps to respiratory/neurological failure.
- No new amendment is strictly needed to register BSD as legal death.

#### **Real Contradiction in Law**

- Section 14(1) of THOTA: BSD certification linked only to authorised transplant hospitals.
- Rules 5(1) & 5(2): require BSD certification in any hospital with ICU facilities.
- Result: inconsistency hinders widespread BSD declaration and organ retrieval.

#### **Needed Legal Reforms**

- Allow BSD certification and initial organ preservation across all ICU hospitals.
- Restrict actual transplant surgery to appropriately registered centres.

#### **Administrative Hurdles**

- Requirement for AA-approved doctors (without clear criteria) complicates BSD certification.
- Form 10 lacks a clear "time of death" field; Kerala has provided a workable definition, but most states haven't.

# **Consent Sequencing**

- Legally, BSD must be certified first, followed by approach to family for consent.
- Form 8 assumes prior declaration of BSD/death before authorisation is sought.

#### Why Clarity on BSD is Critical

- Helps bridge the organ shortage.
- · Resolves ethical confusion at end of life.
- Frees ICU beds and ventilators earlier in a lawful, transparent manner.



#### Article 5 - NATGRID and Data-Driven Policing

# Why in News?

- NATGRID now handles around 45,000 data requests per month.
- At the 2024 DGPs Conference (Raipur), the PM urged states to integrate NATGRID into their investigations.
- The Home Ministry has asked states to actively use NATGRID.
- Access has expanded from 10 central agencies to **SP-rank officers** in state police.
- This push coincides with **20.41 lakh cyber incidents in 2024**, the highest in recent years.

#### Relevance

# **GS III - Internal Security**

- Intelligence integration and tech-driven policing
- · Cyber incidents, financial crime, terror financing

# GS II - Polity & Governance

- Federalism and policing as a state subject
- Executive power and lack of specific statutory framework
- Oversight of intelligence platforms

#### What is NATGRID?

- A secure, real-time data access system for:
  - Central agencies and state police (SP-level and above).
- Purpose:
  - Integrate diverse government and private sector databases
  - Enable fast, link-based and pattern-based investigation

# Data NATGRID Can Access

- Aadhaar-linked information
- Licences and vehicle registration
- Airline passenger data
- Banking and financial transactions
- Telecom and some digital communications metadata

# Why was NATGRID Set Up?

Post-26/11 realisation that agencies worked in silos and requests took weeks.



- NATGRID acts as a **single-window** for data access to support:
  - Terrorism probes
  - Financial crime
  - Drug trafficking
  - Cyber and organised crime

# **Operational Advantages**

- No FIR prerequisite for queries → supports preventive intelligence.
- Enables "join the dots" analysis across multiple sectors.
- Cuts reliance on inter-agency correspondence.

# **Current Challenges**

- State users report technical friction: slow access, lag in data retrieval, cumbersome workflows.
- Gap between design intent (real-time) and field performance.

# **Security Context**

- Rising cyber threats to critical infrastructure such as power, telecom, and banking.
- NATGRID is being positioned as a core backend for internal security and cyber forensics.

#### **Governance & Privacy Concerns**

- Operates under executive authority; lacks a dedicated statute.
- Raises serious Article 21 (privacy) questions:
  - Mass profiling risks
  - Lack of judicial warrant requirement
  - Weak external oversight
- Compared to Western models, India's oversight is primarily executive, not parliamentary-judicial./ LEADERS OF TOMO

#### Federalism Angle

- Policing is a state subject, yet NATGRID is centrally controlled.
- State police access is expanding, but the platform and logs remain under Union control.

#### Reform Agenda

- Enact a specific **NATGRID Act** with:
  - Purpose limitation
  - Data retention norms



- Independent audit and oversight body
- Parliamentary reporting and transparency on usage

#### Article 6 – Filaments and the Spinning Cosmic Web

# Why in News?

- On 3 December, Oxford researchers reported a ~50 million light-year-long galaxy filament.
- The galaxies within it show aligned spins, implying that the entire filament is rotating.
- It may be among the largest spinning structures ever observed, validating predictions from cosmological simulations.

#### Relevance

# GS III - Science & Technology

Cosmology, astrophysics, dark matter, large-scale structure

# **GS I – Physical Geography (Extension to Universe)**

Understanding the **cosmic web** and formation of galaxies

#### What Are Cosmic Filaments?

- Enormous thread-like structures made of:
  - Dark matter
  - Intergalactic gas
  - Galaxies
- Size: tens to hundreds of millions of light-years.
- They link galaxy clusters and surround vast voids.

#### Structure of the Cosmic Web ESTD 2022

- Large-scale matter distribution:
- Filaments long threads

  Sheets/Walle 49 Sheets/Walls – flattened dense regions
  - **Nodes/Clusters** junctions of filaments
  - Voids giant under-dense regions

#### **How Do Filaments Form?**

- Origin in tiny density fluctuations after the Big Bang.
- Under gravity:



- Matter collapses into sheets → then filaments → then clusters at intersections.
- Driven by dark matter, which forms the invisible skeleton; normal matter follows it.

# Why Called "Cosmic Highways"?

- Gas and smaller galaxies flow along filaments into larger clusters.
- · This flow:
  - Fuels galaxy growth and star formation
  - Influences how galaxies evolve over billions of years

#### **How Are Filaments Detected?**

- Using enormous redshift surveys mapping galaxies in 3D.
- Statistical analysis reveals filamentary patterns.
- Numerical simulations under the **ACDM model** reproduce such structures.

# What Did the New Study Show?

- A filament ~50 million light-years long containing at least 14 observed galaxies.
- Their rotation axes line up with the filament's direction.
- Interpretation: the filament as a whole is slowly spinning.

#### Why is Filament Rotation Important?

- Earlier view: filaments were mostly static channels of inflow.
- New evidence: even these vast structures possess angular momentum.
- It suggests that:
  - Gravitational and tidal forces can spin up cosmic-scale structures.
  - Galaxy spin alignments along filaments arise from this large-scale rotation.

#### **Broader Cosmological Significance**

- Supports the **gravitational instability model** of structure formation.
- Confirms predictions made in large cosmological simulations.
- Provides insights into how dark matter shapes not just where matter is, but how it moves and spins.

09<sup>th</sup> December 2025: Daily MCQs

#### Q1. With reference to pension reforms in India, consider the following statements:

- 1. Atal Pension Yojana (APY) is a non-contributory social assistance scheme entirely funded by the Union Government.
- 2. The National Pension System (NPS) is a defined contribution scheme with market-linked returns.



3. The new Labour Codes' uniform definition of wages is expected to increase the base for pension, PF and gratuity contributions.

Which of the statements given above is/are correct?

- A. 1 and 2 only
- B. 2 and 3 only
- C. 1 and 3 only
- D. 1, 2 and 3

Answer: B

#### **Explanation:**

- **APY** is a *contributory* pension scheme for informal sector workers; subscribers pay regular contributions, and government gives co-contribution/guarantee for minimum pension → Statement 1 is **incorrect**.
- NPS is a defined contribution, market-linked pension system → Statement 2 is correct.
- The Labour Codes' wage definition (basic = at least 50% of total) tends to raise the base for PF, gratuity and pension → Statement 3 is correct.

# Q2. Regarding the recent controversy around mandatory pre-installation of the Sanchar Saathi app, which of the following correctly applies the K.S. Puttaswamy (2017) privacy test?

- 1. Any executive directive that affects privacy must have clear legal backing.
- 2. Even if a serious cyber fraud problem exists, the State must still choose the least intrusive method available.
- 3. Once an app is meant for public safety, its pre-installation cannot be challenged on grounds of proportionality.

Select the correct answer using the code below:

A. 1 and 2 only
B. 2 and 3 only
C. 1 and 3 only
D. 1, 2 and 3

Answer: A

# **Explanation:**

- Puttaswamy laid down legality, necessity, proportionality  $\rightarrow$  any privacy-infringing measure needs **statutory backing**  $\rightarrow$  (1) correct.
- Serious problems (like cyber fraud) do **not remove** the requirement that the State pick the **least intrusive** means  $\rightarrow$  (2) correct.
- Even a safety app can be struck down if it fails proportionality/necessity  $\rightarrow$  (3) is incorrect.



# Q3. With reference to the Draft Indian Statistical Institute (ISI) Bill, 2025, consider the following statements:

- 1. The Bill seeks to convert ISI from a registered society into a statutory body corporate.
- 2. Under the proposed governance structure, the Board of Governors will have no elected representatives from within ISI.
- 3. The draft Bill explicitly prohibits ISI from generating revenue through consultancy or sponsored research.

Which of the statements given above is/are correct?

- A. 1 and 2 only
- B. 1 and 3 only
- C. 2 and 3 only
- D. 1. 2 and 3

Answer: A

# **Explanation:**

The draft Bill does aim to change ISI's status into a statutory body corporate → (1) correct.

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- The proposed Board of Governors is dominated by Union Government nominees with no elected ISI members → (2) correct.
- On the contrary, the Bill allows revenue generation from fees, consultancy, and sponsored research → (3) is incorrect.

# Q4. Consider the following statements about Brain-Stem Death (BSD) and organ donation in India:

- 1. Under the Transplantation of Human Organs and Tissues Act, 1994, brain-stem death is legally recognised as death.
- 2. The Registration of Births and Deaths Act, 1969 uses a concept of death that is compatible with recognising BSD as legal death.
- 3. At present, BSD certification is legally permitted only in hospitals that are registered transplant centres, with no provision for other ICU-equipped hospitals.

Which of the statements given above is/are correct?

- A. 1 and 2 only
- B. 2 and 3 only
- C. 1 and 3 only
- D. 1, 2 and 3

Answer: A

**Explanation:** 



- THOTA, 1994 explicitly recognises brain-stem death as a form of legal death → (1) correct.
- The 1969 Act defines death as permanent disappearance of evidence of life, a concept consistent with BSD → (2) correct.
- The Rules actually *envisage* BSD certification in **all ICU hospitals**, creating a contradiction with the main Act which ties it to registered centres; so saying it is "only permitted" in transplant centres is an overstatement → (3) **not fully correct** in law's intent.

# Q5. With reference to NATGRID and India's internal security architecture, consider the following statements:

- 1. NATGRID was conceptualised after the 26/11 attacks to integrate multiple public and private databases for security agencies.
- 2. Presently, only Central intelligence and investigative agencies can access NATGRID; State police officers have no access.
- 3. NATGRID operates without a specific parliamentary law, raising concerns about statutory oversight and privacy.

Which of the statements given above is/are correct?

A. 1 only

B. 1 and 3 only

C. 2 and 3 only

D. 1, 2 and 3

Answer: B

#### **Explanation:**

- It was indeed designed post-26/11 as a data integration platform for faster intelligence → (1) correct.
- Access has now been extended to SP-rank officers of State police; so (2) is incorrect.
- There is currently **no dedicated statute** exclusively governing NATGRID operations, which fuels debates on oversight → (3) correct.

Mains: The controversy around the mandatory pre-installation of the Sanchar Saathi app illustrates the tensions between cyber fraud prevention and the fundamental right to privacy. Examine this episode in the light of the **Puttaswamy judgment**, and suggest a framework that prioritises **digital literacy and behavioural cybersecurity** over intrusive surveillance-led solutions. 250 words.