

## Prelims Exam Topics

### COMET 3I/ATLAS

#### Context

Scientists studying comet 3I/ATLAS have determined it is an interstellar visitor formed, with a chemical composition unlike any object in our solar system.

#### About Comet 3I/ATLAS

- 3I/ATLAS is the third interstellar object ever observed in our solar system.
- Scientists using the James Webb Space Telescope (JWST) have analysed its isotopic composition to determine it formed ~12 billion years ago.

#### About James Webb Space Telescope (JWST):

- Largest space telescope.
- A collaboration between NASA, ESA and CSA.
- Operates primarily in infrared spectrum
- Successor to the Hubble Space Telescope
- Located at Lagrange Point 2 (L2)

#### Additional Information:

##### Lagrange Point

- Lagrange points are positions in space where objects sent there tend to stay put.
- At Lagrange points, the gravitational pull of two large masses precisely equals the centripetal force required for a small object to move with them.
- **Use:** These points in space can be used by spacecraft to reduce fuel consumption needed to remain in position.

#### Difference between Comet and Asteroid

Comets	Asteroids
Made up of ice and dust	Made up of rocks and metals
Form tails when they pass through the inner solar system	Do not form tails
Usually orbit the Sun in two regions: the Kuiper Belt and the Oort Cloud	Usually orbit the Sun in the asteroid belt, a region between Mars and Jupiter
Typically remain in the outermost regions of the	Typically remain in the asteroid belt, a region

solar system, but can pass through the inner solar system if their orbits are elliptical enough	between Mars and Jupiter
May or may not orbit the Sun in the same direction as the planets	Orbit the Sun in the same direction as the planets

**PYQ Anchor**

**Q. What is the difference between asteroids and comets? (UPSC 2021)**

1. Asteroids are small rocky planetoids. while comets are formed of frozen gases held together by rocky and metallic material.
2. Asteroids are found mostly between the orbits of Jupiter and Mars, while comets are found mostly between Venus and Mercury.
3. Comets show a perceptible glowing tail, while asteroids do not.

Which of the statements given above is/are correct?

- a. 1 and 2 only
- b. 1 and 3 only
- c. 3 only
- d. 1,2 and 3

Ans. (b)

**FCRA AMENDMENT RULES**

**Context**

The Union Home Ministry amended Rules under **Foreign Contribution (Regulation) Act (FCRA), 2010**, introducing stricter compliance for NGOs receiving foreign funds.

**Key Changes in FCRA Rules**

**1. Purpose-Specific Registration**

- Earlier: 5 broad categories — Social, Economic, Educational, Cultural, Religious
- Now: NGOs must select activities from **approved activity schedules** under each category

**2. Geographical Restrictions**

- Registration certificates will now explicitly mention **approved purposes + States/UTs of operation**
- Existing registered NGOs must indicate retained purposes/areas within **one year**.

**3. Religious Activities**

Permitted	Explicitly Excluded (Proselytisation bar)
Construction/renovation of places of worship	Religious education and moral instruction
Preservation of scriptures	Documentation of religious philosophy
Dharamshalas, langars	Revival of indigenous/tribal faith practices
Spiritual programmes	Satsangs, discourses, meditation retreats

**4. Expanded "Key Functionary" Definition** Now includes: Trustees, Partners, Governing body members, Company directors, **Karta of Hindu Undivided Family (HUF)**, any person exercising control/management.

#### 5. Restrictions on Foreign Nationals

- Associations with **foreign nationals (non-PIOs) as key functionaries** ordinarily ineligible for FCRA registration or prior permission
- Central Government may grant exemptions

#### 6. Minimum Utilisation Requirement

- Organisation deemed to have undertaken "**reasonable activity**" only if it utilised **at least ₹10 lakh** of foreign contribution in previous **two financial years**

#### 7. Prior Permission - Instalment Release Condition

- Subsequent instalments released only after **75% of previous instalment utilised + field inquiry verification**

#### About FCRA 2010

##### Objectives:

- Regulates **acceptance and utilisation** of foreign contributions
- Prevents foreign funding from adversely affecting **sovereignty, integrity, security, public interest, electoral politics, communal harmony**
- Ensures **transparency and accountability** in foreign-funded activities

**Administering Ministry:** Ministry of Home Affairs

## PADMA AWARDS

### Context

Tennis legend Vijay Amritraj, cricketer Rohit Sharma, and playback singer Alka Yagnik were among the eminent personalities who received the Padma awards from the President..

### About Padma Awards

- Instituted in **1954** alongside Bharat Ratna

- Originally two awards: Bharat Ratna + Padma Vibhushan (3 classes)
- **1955 restructuring** → Three distinct awards:
  - **Padma Vibhushan** – "Exceptional and distinguished service" (2nd highest civilian award)
  - **Padma Bhushan** – "Distinguished service of high order"
  - **Padma Shri** – "Distinguished service in any field"

#### Selection Process:

- Committee chaired by **Cabinet Secretary**
- Includes: Home Secretary, Secretary to the President, 4–6 eminent persons
- Recommendations → PM → President (final approval)

#### Key Rules:

- **Cap:** Max 120/year (excluding posthumous, NRI, OCI, foreigner recipients)
- **Not a title** - cannot be used as prefixed/suffixed
- Eligible: Citizens, foreigners, NRIs, PIOs, OCIs

### **TREDS (TRADE RECEIVABLES DISCOUNTING SYSTEM)**

#### Context

RBI issued final directions on TReDS to simplify the system for MSMEs, mandating a minimum net worth of ₹25 crore with statutory auditor certification; compliance deadline set for **March 31, 2028**.

#### About TReDS

- **What it is:** RBI-regulated online platform that enables MSMEs to auction their **invoices/trade receivables** to banks and other financial institutions (FIs)
- **Core function:** Converts trade receivables into immediate working capital - solving the liquidity crunch MSMEs face due to delayed customer payments
- **Regulator:** Reserve Bank of India (RBI)
- **Key participants:** MSMEs (sellers), buyers (corporates/PSUs), financiers (banks, NBFCs)
- **New RBI norms:**
  - Minimum net worth: **₹25 crore**
  - Certification by **statutory auditor** mandatory
  - Compliance deadline: **March 31, 2028**

## **BAARG - BOW-AND-ARROW RADIO GALAXY**

### **Context**

A citizen scientist (India) identified a galaxy shaped like a bow and arrow via RAD@home — an Indian citizen science network.

### **About BAARG**

- BAARG moves at supersonic speed through a galaxy cluster, creating shockwaves that compress and stretch its radio jets into asymmetric forms.
- First clear detection of a bow-shock morphology in radio waves.
- Significance: Confirms long-predicted but never clearly observed bow shocks in radio galaxies.

## **CALL TO ACTION ON METHANE**

### **Context**

The UN Secretary-General's **Call to Action on Methane** provides a roadmap for governments, industries, and financial institutions to rapidly reduce methane emissions through proven and cost-effective measures.

### **About Methane**

- Simplest hydrocarbon and the main constituent of Natural Gas.
- Colorless, odorless, highly flammable gas.
- **84 times more potent than CO<sub>2</sub> over a 20-year period.**
- **Second-largest contributor** to anthropogenic global warming after carbon dioxide.
- Classified as a **Short-Lived Climate Pollutant (SLCP)**.
- Atmospheric lifetime: **12 years**.
- **India and Methane:** India is the **3rd largest methane emitter** globally.

## Mains Exam Topics

### HOW DOES THE UK PARLIAMENTARY SYSTEM DIFFER FROM INDIA'S?

**Context:**

British Prime Minister Keir Starmer has resigned both as PM and leader of the Labour Party.

**Differences between the British and Indian approaches to Parliamentary sovereignty:**

Aspect	British Approach	Indian Approach
<b>Constitutional Foundation</b>	Uncodified constitution - parliamentary sovereignty rests on conventions and judicial precedents.	Codified constitution - Parliament's powers are explicitly delimited; Constitution is the supreme document.
<b>Judicial Review</b>	Parliament is theoretically sovereign; courts cannot strike down Parliamentary legislation.	The Constitution is supreme - the judiciary can review and strike down laws that violate constitutional provisions.
<b>Federal Structure</b>	Unitary system - parliamentary sovereignty is indivisible and centralised.	Federal system - sovereignty is shared; bicameral parliament reflects Centre-State division of powers.
<b>Heads</b>	UK Monarch - Ceremonial head in a hereditary position.	The President of India is mostly a ceremonial head of state.
<b>Prime Minister Term Flexibility</b>	May be applied to earlier elections	5 years
<b>Speaker</b>	Non-Partisan Speaker Speaker is an independent figure not affiliated to any party.	Party-Affiliated Speaker Speaker is typically a member of the ruling party.
<b>Amendment of Constitution</b>	Parliament can alter any law including constitutional principles without any special procedure (no written constitution).	Special majority + State ratification required for key amendments; Basic Structure doctrine (Keshavananda Bharati, 1973) makes certain provisions unamendable.

<b>Individual Rights</b>	No formalised constitutional rights document; reliance on common law and statutes.	Fundamental Rights (Part III) are justiciable and cannot be overridden by parliamentary law; judiciary protects these even against Parliament.
<b>Emergency Powers</b>	Parliament has wide-ranging emergency powers with minimal constitutional restriction.	Emergency powers are constitutionally regulated (Articles 352–360).
<b>Sovereignty Principle</b>	Parliamentary sovereignty is absolute - Parliament can make or unmake any law.	Constitutional sovereignty is primary - Parliament operates within constitutional limits.

**Despite structural differences, both systems share foundational commonalities:**

- **Supreme Legislative Body:** Parliament is the highest law-making authority in both systems. The UK Parliament enacted the Brexit legislation; India's Parliament passed the GST Bill - both landmark exercises of legislative supremacy.
- **Executive Accountability:** In both systems, the executive is answerable to Parliament. The UK's Prime Minister's Questions (PMQs) and India's Question Hour reflect the same constitutional logic: the cabinet governs with parliamentary confidence.
- **Financial Control:** Both parliaments exercise sovereign control over national finances. India's Union Budget is presented in the Lok Sabha; the UK's Chancellor presents it in the House of Commons - in both cases, no expenditure is lawful without parliamentary sanction.
- **Committee System:** Parliamentary committees exercise detailed oversight. The Public Accounts Committee in both countries scrutinises government expenditure to ensure lawfulness and efficiency.
- **Separation of Powers:** Both systems maintain an independent judiciary, even if its relationship to parliamentary sovereignty differs significantly.
- **Ceremonial Monarchy:** The Crown in the UK and the President in India both hold largely ceremonial roles - royal or presidential assent is constitutionally expected, not discretionary.
- **Privilege Motions:** Members in both systems can move privilege motions against those who mislead Parliament - a tool to protect parliamentary dignity and accountability.

**PYQ Anchor**

**Q. We adopted parliamentary democracy based on the British model, but how does our model differ from that model? (UPSC 2021)**

1. As regards legislation, the British Parliament is supreme or sovereign but in India, the power of the Parliament to legislate is limited.
2. In India, matters related to the constitutionality of the Amendment of an Act of the Parliament are referred to the Constitution Bench by the Supreme Court.

Select the correct answer using the code given below.

1. 1 only
2. 2 only
3. Both 1 and 2
4. Neither 1 nor 2

Ans. (c)

