

P2. NATIONAL



India’s first immersive language museum in Kolkata - Explores how India's linguistic heritage, knowledge traditions and multilingual diversity can be preserved through education, digitisation and emerging technologies.

P3. NATIONAL



Ken-Betwa protest: Why are tribals opposing the river-linking project - Analyses India's first river-linking project as a case study in balancing water security, infrastructure development, environmental conservation and rehabilitation of affected communities.

P4. HEALTH



India’s bad cholesterol crisis: ICMR study says 9 in 10 adults have abnormal fat levels - Explains dyslipidemia as a silent but widespread public health challenge, highlighting the need for early screening and preventive lifestyle interventions to reduce cardiovascular disease.

Editor’s Note

Another week, another edition of Pala Civil Times. This issue explores some of the most significant developments shaping India's policy landscape across health, infrastructure, culture, science and industry. We begin with India's first immersive language museum, highlighting how technology can preserve the country's rich linguistic heritage for future generations. From there, we examine the Ken-Betwa River Linking Project, where questions of water security, environmental conservation and tribal rehabilitation intersect. In health, a landmark ICMR study reveals the widespread burden of dyslipidemia, underscoring the growing importance of preventive healthcare and lifestyle awareness. Our economics section revisits India's historic prominence in the global textile trade while analysing the reforms needed to restore its export competitiveness. The edition also decodes the successful Vikram-1 launch, explaining how it marks India's transition towards a vibrant private space ecosystem. Together, these stories go beyond current events to explore the broader themes of sustainability, innovation, inclusivity and long-term policy planning that every informed citizen and aspiring policymaker should understand.

Editorials Decoded

P8. ECONOMICS



India's Textile Industry: From Civilisational Strength to Global Competitiveness - Traces the evolution of India's textile industry from historic global leadership to modern export competitiveness, emphasising ecosystem-based reforms for future growth.

The Indian EXPRESS

An uncertain world needs food, fuel, forex buffers



Explains how strategic reserves have become a key pillar of national economic resilience by cushioning economies against geopolitical conflicts, climate shocks and supply disruptions.

THE HINDU

Spreading Wings



Examines India's transition from a state-led space programme to a commercially driven private space ecosystem, highlighting the shift from technological achievement to long-term commercial competitiveness.

India's first immersive language museum in Kolkata

The Museum of Word (Shabdlok), established at the National Library **(in Kolkata)** under the Ministry of Culture, is India's first immersive language museum dedicated to preserving and showcasing the country's linguistic heritage. Conceived as an interactive cultural institution rather than a conventional museum, it seeks to present language as a dynamic force that has both shaped Indian civilisation and evolved alongside it. By combining heritage preservation with digital technologies, the museum aims to make India's linguistic traditions more accessible to contemporary audiences and future generations.

Language as a Living Cultural Heritage

The museum is built around the idea that language is more than a medium of communication. Rather, it serves as a repository of a society's history, knowledge systems, values and cultural identity. Through nine thematic galleries, it traces the evolution of Indian languages and their contribution to the development of civilisation, literature and intellectual traditions. Covering **India's 22 official languages**, the museum highlights the continuity of linguistic diversity from oral traditions and ancient manuscripts to printed literature and modern digital texts, illustrating how languages continuously influence society while adapting to changing historical contexts.



Nature of the data leak and what it implies

The museum presents the evolution of India's knowledge traditions through the journey of the written word. It traces this progression from Omkar, regarded as a foundational spiritual symbol, to the origin of words and the development of grammar, represented by India's rich grammatical tradition. The narrative then follows the transmission of knowledge through Shrutis, Smritis, ancient manuscripts, inscriptions, the printing press, and finally modern digital texts. By linking these stages, the museum demonstrates that Indian languages have served not merely as means of communication but as vehicles for preserving philosophy, literature, science, law and collective civilisational memory. The ongoing digitisation of large manuscript collections further strengthens efforts to conserve and make this heritage accessible for future generations.

RELEVANCE

GS I: Indian History and Culture

Language Preservation in the Digital Age

The museum combines heritage conservation with modern technology through digital displays, holography, motion-sensor systems and immersive exhibits, making language learning interactive rather than archival. Beyond preservation, it highlights the need to prepare Indian languages for the future by strengthening their presence in digital platforms and Artificial Intelligence applications. Ensuring that Indian languages remain digitally accessible enables them to participate in emerging technologies, promotes innovation in local languages, and expands access to knowledge without weakening linguistic diversity.

Way Forward

The long-term vitality of India's linguistic heritage depends upon its sustained use in education, society and everyday life. The article highlights several principles that support this objective: the family as the first space for language learning, mother tongue-based education during the foundational years, and universities as centres of original thinking and knowledge creation rooted in Indian languages. It also emphasises encouraging individuals to learn at least one additional Indian language, strengthening multilingualism while promoting national integration.

PYQ Compass

UPSC questions previously asked from the themes discussed on this page.



Q. The Constitution (71st Amendment) Act, 1992 amends the Eighth Schedule to the Constitution to include which of the following languages?

1. Konkani
2. Manipuri
3. Nepali
4. Maithili

Select the correction answer using the code given below :

- (a) 1, 2 and 3
- (b) 1, 2 and 4
- (c) 1, 3 and 4
- (d) 2, 3 and 4

Ken-Betwa protest: Why are tribals opposing the river-linking project

The Ken–Betwa Link Project (KBLP) has become a focal point in the debate between development and environmental sustainability following protests by affected communities in Madhya Pradesh over rehabilitation and displacement. While the immediate protests centre on compensation and resettlement, they also bring renewed attention to broader questions surrounding India's river interlinking policy, ecological conservation and participatory governance. As the country's first river-linking project under implementation, KBLP is likely to shape the future of similar projects across India.

National Perspective Plan for River Interlinking

The Ken–Betwa project is the first project to be implemented under the National Perspective Plan (NPP) for interlinking rivers, formulated in 1980 by the then Ministry of Irrigation and the Central Water Commission. The plan aims to transfer water from surplus river basins to water-deficit regions through a network of river links identified by the National Water Development Agency (NWDA). It comprises two components:

- Himalayan Rivers Development – 14 proposed river links.
- Peninsular Rivers Development – 16 proposed river links.

The project therefore serves as a policy model for India's long-term strategy to improve water security, irrigation and regional development through inter-basin water transfer.

Key Features and Expected Benefits

The project involves constructing the **Daudhan Dam** on the Ken River and transferring surplus water to the Betwa River through a 221-km canal, including a 2-km tunnel. In addition to inter-basin water transfer, the project is expected to generate 103 MW of hydropower and 27 MW of solar power. It seeks to address chronic water scarcity in the drought-prone Bundelkhand region by providing irrigation and drinking water to millions of people across Madhya Pradesh and Uttar Pradesh, while supporting agricultural productivity and regional socio-economic development. The project therefore integrates objectives relating to water security, renewable energy and rural development.

Environmental and Social Concerns

A substantial portion of the project lies within the Panna Tiger Reserve, raising concerns regarding habitat fragmentation and impacts on wildlife, including tigers, gharials, mahseer fish and endangered vultures. Large-scale tree felling, alteration of riverine ecosystems and possible impacts on biodiversity have been highlighted by the Supreme Court's Central Empowered Committee (CEC). Questions have also been raised regarding the availability of updated hydrological data supporting the classification of the Ken River as a surplus basin. Alongside these environmental concerns, protests by affected tribal communities have highlighted issues of rehabilitation, compensation, survey processes and implementation transparency.

Way Forward

The Ken–Betwa project demonstrates both the opportunities and complexities of large-scale river interlinking. While enhancing water availability remains an important national objective under conditions of increasing climate variability, long-term success depends on ensuring scientifically robust hydrological assessments, transparent environmental evaluation, effective biodiversity conservation and fair rehabilitation of affected communities. Strengthening public participation, improving institutional coordination and adopting integrated river basin management can help reconcile developmental needs with ecological sustainability. As India's first operational river-linking project, KBLP will serve as an important benchmark for evaluating the economic, environmental and social viability of future inter-basin water transfer initiatives.

PYQ Compass

UPSC questions previously asked from the themes discussed on this page.



Q. The interlinking of rivers can provide viable solutions to the multi-dimensional inter-related problems of droughts, floods, and interrupted navigation. Critically examine. (GS I – 2020)

RELEVANCE

GS II: Governance - Government Policies and Rehabilitation

HEALTH

India's bad cholesterol crisis: ICMR study says 9 in 10 adults have abnormal fat levels

The ICMR-INDIAB study, based on lipid profiles of 23,665 adults across all States and Union Territories, estimates that 87.3% of Indian adults have at least one abnormal lipid level, making dyslipidemia one of India's most prevalent non-communicable disease risk factors. Unlike many illnesses, dyslipidemia produces no obvious symptoms, allowing unhealthy fats to accumulate silently within blood vessels over several years. This gradual process narrows arteries and substantially increases the risk of heart attack, stroke and other cardiovascular diseases, making early detection essential.

Understanding Dyslipidemia and India's Lipid Profile

Dyslipidemia refers to an abnormal balance of fats (lipids) in the blood, rather than a rise in total cholesterol alone. Cardiovascular risk depends on the combined pattern of different lipids:

- **HDL (High-Density Lipoprotein)** is the "good cholesterol", as it helps remove excess cholesterol from the bloodstream.
- **LDL (Low-Density Lipoprotein)** is the "bad cholesterol", which contributes to plaque formation inside arteries.
- Triglycerides are another form of blood fat that increase cardiovascular risk when elevated.

The study found low HDL cholesterol to be the most common lipid abnormality, followed by high LDL cholesterol, elevated triglycerides and high total cholesterol. Thus, focusing only on total cholesterol may overlook significant cardiovascular risk.

Who Is at Risk? Rethinking Traditional Assumptions

The study estimates that nearly 355 million Indians have abnormal lipid levels despite having normal blood sugar, normal blood pressure and a healthy body weight. Dyslipidemia was also found to peak between 30 and 39 years of age, indicating that cardiovascular risk begins much earlier than commonly assumed. Although urban populations showed a higher prevalence, the relatively small urban-rural difference suggests that unhealthy lifestyles have become widespread across the country. Women were also found to have a higher overall burden than men.

Why Is Dyslipidemia So Common in India?

The high prevalence reflects a combination of genetic susceptibility and lifestyle changes. South Asians are known to have a metabolic tendency towards low HDL cholesterol and high triglycerides, even at normal body weight, increasing their vulnerability to premature cardiovascular disease. This genetic predisposition is reinforced by modern lifestyles characterised by carbohydrate-rich diets, low physical activity, sedentary occupations, obesity, diabetes and hypertension. Excess carbohydrate intake particularly contributes to higher triglyceride levels, which in turn lowers HDL cholesterol. A more balanced dietary pattern—including appropriate proportions of carbohydrates, proteins, fruits and vegetables—along with regular exercise can significantly improve lipid profiles.

Why Is Dyslipidemia So Common in India?

Since dyslipidemia remains largely symptomless until cardiovascular complications develop, relying only on obesity, diabetes or hypertension to identify high-risk individuals leaves millions undiagnosed. The findings highlight the need for earlier and broader lipid screening, particularly among younger adults, alongside greater public awareness about cardiovascular risk factors. Preventive strategies should emphasise healthy diets, regular physical activity, maintaining a healthy body weight, avoiding tobacco, reducing ultra-processed foods and trans fats, and adhering to prescribed treatment where necessary. Early detection combined with sustained lifestyle modification offers one of the most effective approaches to reducing India's growing burden of cardiovascular disease.

PYQ Compass

UPSC questions previously asked from the themes discussed on this page.



Q. How do you account for the growing fast food industries given that there are increased health concerns in modern society? Illustrate your answer with the Indian experience. (GS II – 2025)

RELEVANCE

GS II: Public Health; Healthcare Policy.

HEALTH

India's bad cholesterol crisis: ICMR study says nearly 9 in 10 adults have abnormal fat levels

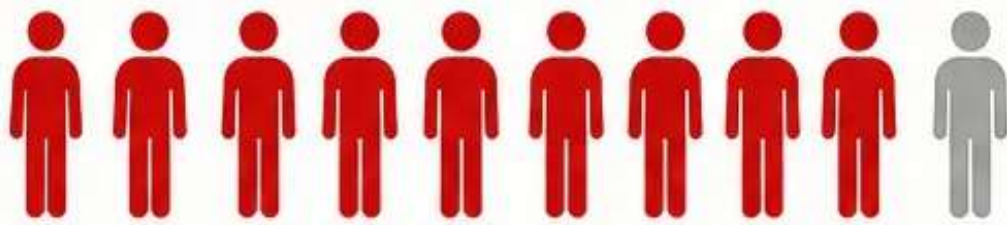
THE SILENT EPIDEMIC IN INDIA

How common is dyslipidemia in India?

NEARLY

9 IN 10

INDIAN ADULTS HAVE
LAT LEAST ONE LIPID
ABNORMALITY



87.3%

of Indian adults have
at least one abnormal
cholesterol level.

Source: ICMR-INDIAB National Study
 (Data from 23,665 adults across India)

WHAT IS DYSLIPIDEMIA?

Dyslipidemia is an unhealthy balance of fats in the blood that increases the risk of heart disease and stroke.



TYPES OF LIPID ABNORMALITIES

↓	Low HDL (Good cholesterol)	66.8%
↑	High LDL (Bad cholesterol)	49.4%
↑	High Triglycerides	29.5%
↑	High Total Cholesterol	22.1%

THE UNEXPECTED FACE OF RISK



**~355 MILLION
INDIANS**

have abnormal lipid
levels despite having
normal blood sugar,
normal blood pressure
and no obesity.

HEART RISK BEGINS EARLY



Dyslipidemia peaks
between the ages of
30 and 39 years,
much earlier than
most people think.

WOMEN SHOW A HIGHER BURDEN



Women have a higher
prevalence of dyslipidemia
than men. Urban areas
are more affected,
though rural India is
not far behind.

LINKED TO MODERN LIFESTYLES



Sedentary lifestyle,
unhealthy diet, obesity,
diabetes and hypertension
significantly increase
the risk of abnormal
cholesterol levels.

A NATIONWIDE CHALLENGE



High prevalence across
all states and union
territories shows
that dyslipidemia is a
population-wide
public health threat.

WHY IT MATTERS – FROM RISK TO DISEASE

1 ABNORMAL CHOLESTEROL



Too much "bad" cholesterol
(LDL) or fats (triglycerides)
in the blood.

2 PLAQUE BUILDS UP



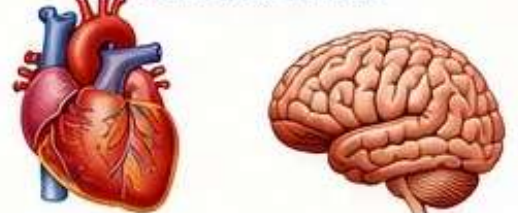
Fatty deposits (plaque)
accumulate in the
artery walls.

3 ARTERIES NARROW



Plaque narrows the
arteries and restricts
blood flow.

4 SERIOUS CONSEQUENCES



HEART ATTACK
Reduced blood flow
to the heart muscle.

STROKE
Reduced blood flow
to the brain.

WHAT CAN YOU DO?



Eat a balanced diet
More vegetables,
fruits, whole grains
and healthy fats.



Stay active
Exercise regularly
for at least
150 minutes
a week.



**Maintain a
healthy weight**
Even modest weight
loss can improve
cholesterol levels.



Avoid tobacco
It significantly
increases heart
disease risk.



**Get your lipid
profile checked**

Early screening helps
prevent future
complications.



**DON'T WAIT FOR DIABETES. DON'T WAIT FOR OBESITY.
CHECK YOUR CHOLESTEROL EARLY. PROTECT YOUR HEART.**

Source:
ICMR-INDIAB
National Study

An uncertain world needs food, fuel, forex buffers (Indian Express : 20-07-2026)

Recent geopolitical conflicts and climate-related disruptions have highlighted that economic resilience increasingly depends not only on production capacity but also on the ability to absorb sudden supply shocks. Strategic reserves of critical commodities such as energy, food and foreign exchange have emerged as essential policy instruments for stabilising markets during crises. The relatively moderate impact of the ongoing West Asia conflict on global commodity prices, despite major disruptions to oil supplies, illustrates how adequate reserves can reduce economic volatility and support recovery.

Strategic Reserves as Economic Shock Absorbers

Strategic reserves are stocks of essential commodities maintained to ensure continuity of supply during emergencies. Their primary objective is not routine market intervention but safeguarding economic stability during exceptional disruptions.

- Energy reserves help moderate the impact of geopolitical conflicts and disruptions in global supply chains.
- Food reserves provide protection against production losses arising from adverse climatic events and supply interruptions.
- Foreign exchange reserves strengthen external sector stability by enabling countries to manage balance of payments pressures and exchange rate volatility.

Historical Evidence: Contrasting Two Global Commodity Shocks

2022: Russia-Ukraine Conflict in the Aftermath of the Pandemic

- The Russia-Ukraine conflict occurred when global commodity markets were still recovering from COVID-19-induced supply chain disruptions.
- Existing reserves were insufficient to absorb simultaneous shocks affecting energy and food supplies.
- Oil and food prices experienced sharp increases due to constrained global inventories.
- India also faced prolonged food inflation following the strong El Niño event of 2023–24, which reduced agricultural resilience.
- Limited global buffers amplified the transmission of international shocks into domestic inflation.

Current West Asia Conflict

- The coordinated release of emergency oil stocks by member countries moderated crude oil prices despite disruptions to supplies passing through the Strait of Hormuz.
- India entered the period with substantially higher public stocks of rice, wheat and pulses, while global agricultural production also remained abundant.
- These accumulated reserves have acted as buffers against potential disruptions arising from geopolitical tensions and weather-related risks, preventing the sharp commodity price escalation witnessed in 2022.



Way Forward

Future resilience requires moving beyond sector-specific stockpiling towards a coordinated strategy covering the three critical pillars of national security—**Food, Fuel and Foreign Exchange**. Such an approach involves balancing the fiscal cost of maintaining reserves against the economic and strategic costs of future crises. As climate variability and geopolitical uncertainty become persistent features of the global economy, reserve building is likely to become an increasingly important component of long-term economic planning and national resilience.

PYQ Compass

UPSC questions previously asked from the themes discussed on this page.



Q. Elaborate the scope and significance of supply chain management of agricultural commodities in India. (GS III – 2025)

RELEVANCE

GS III: International Trade, Foreign Trade Policy, Energy Security

Spreading Wings (The Hindu : 20-07-2026)

The successful orbital launch of Vikram-1, developed by Skyroot Aerospace, marks India's first privately built rocket to place payloads into orbit, signalling the country's transition from a government-led space programme to a commercially competitive space ecosystem. Enabled by space-sector reforms initiated since 2020, the achievement demonstrates India's entry into the small group of countries where private enterprises possess indigenous orbital launch capability while complementing ISRO's evolving role as a research- and science-focused organisation.

India's Evolving Commercial Space Ecosystem

- Vikram-1 is a four-stage launch vehicle designed to provide dedicated satellite launch services instead of conventional rideshare missions.
- Unlike rideshare launches, which require customers to accept predetermined launch schedules and orbital destinations, **Vikram-1 follows a "launch-on-demand" or "cab service" model**, allowing customers to choose both the orbit and launch timeline in exchange for a higher launch price.
- The rocket employs carbon-composite structures, aiming to reduce weight and manufacturing costs while remaining competitively priced between the PSLV and the projected SSLV.
- The mission represents the outcome of India's space-sector liberalisation, where private firms have evolved from component suppliers to independent launch service providers.

Policy Support and Strategic Importance

India's commercial launch ecosystem has been strengthened through a series of policy reforms:

- Space-sector reforms initiated from 2020 opened launch activities to private participation.
- **The Indian Space Policy, 2023** redefined ISRO's role, enabling it to concentrate on research, technology development and scientific missions while encouraging commercial participation.
- **Up to 49% Foreign Direct Investment (FDI)** in launch vehicle manufacturing was permitted through the **automatic route in 2024**, improving investment prospects.
- These reforms support **India's broader objective** of expanding its **space economy** from approximately \$8 billion to **\$44 billion by 2033**, encompassing launch services, satellite manufacturing, communications, navigation and Earth observation.

RELEVANCE

GS III: Science & Technology; Space Technology; Indigenisation of Technology; Investment Models.

Commercial Challenges & Regulatory Gaps

- Dedicated launches must consistently compete with lower-cost rideshare missions offered by established international providers.
- Sustained competitiveness requires repeated mission success, controlled manufacturing quality and stable launch costs as production scales.
- The long-term demand for premium dedicated launch services remains uncertain, making the commercial viability of the business model difficult to predict.
- India currently lacks a comprehensive Space Activities Act, resulting in liability and regulatory issues being governed through policy, contractual arrangements and international obligations instead of a dedicated statutory framework.

Future Outlook

Vikram-1 establishes India's technological credibility in private orbital launch capability but represents only the beginning of commercial maturity. The next phase will depend on demonstrating reliable launch performance, scaling manufacturing, attracting sustained commercial demand and developing a predictable regulatory framework.

PYQ Compass

UPSC questions previously asked from the themes discussed on this page.



Q. Consider the following statements with regard to involvement of private entities in India's space programme (2026):

1. The Indian National Space Promotion and Authorisation Centre (IN-SPACe) is an autonomous agency formed to facilitate participation of private entities.
2. Agnikul Cosmos launched the world's first flight using 3D printed rocket engine.
3. Skyroot Aerospace has developed liquid fuel for GSLV.

Which of the statements given above is/are correct?

- (a) 1 only (b) 2 and 3 only (c) 1 and 2 only
 (d) 1, 2 and 3

India's Textile Industry: From Civilisational Strength to Global Competitiveness

India's textile industry is among the world's oldest manufacturing traditions, with archaeological evidence from Harappa and Mohenjodaro (around 4,500 years ago) revealing spindle whorls, needles and dyeing artefacts. For nearly two millennia, Indian textiles dominated international trade, while during the Mughal period Bengal emerged as a global centre of cotton textiles, with Dhaka's muslin and Murshidabad's silk renowned worldwide. Reflecting this economic strength, India accounted for about one-fourth of global economic output in 1700 (Angus Maddison). The Industrial Revolution, driven by mechanised spinning and weaving technologies, shifted competitiveness from artisanal excellence to industrial-scale production, reducing India to a supplier of raw cotton and a market for manufactured textiles.

Present Position: A Strong Value Chain with Untapped Export Potential

Independent India has rebuilt a fully integrated textile value chain, covering cotton production, spinning, weaving, processing, garment manufacturing and exports. The sector remains one of the country's largest employment generators, with the apparel industry creating **153 jobs per ₹1 crore invested, compared to 27 in automobiles and 14 in steel**, highlighting its importance for labour-intensive manufacturing and inclusive growth. Despite these strengths, India's share of global apparel exports has remained stagnant at around 3% for over two decades, indicating that production capability has not translated into proportional global market competitiveness.

Global Competition: Lessons from Successful Exporting Economies

While India's export share stagnated, competitors adopted integrated industrial strategies. Bangladesh increased its share of global apparel exports from 2.2% to 9% through readymade garment-focused finance, export processing zones and simplified trade procedures. Vietnam expanded from 1% to 6% by aligning foreign investment, industrial parks and free trade agreements. China combined vertically integrated manufacturing clusters, concessional finance, export credit insurance and institutional support to emerge as the world's largest apparel exporter, with an undervalued yuan further enhancing export competitiveness.

Structural Challenges Limiting India's Competitiveness

A shortage of mid-sized export-ready firms limits the ability to execute large global orders. The industry's 60:40 cotton-to-non-cotton fibre consumption ratio, compared to the global average of 25:75, restricts participation in rapidly expanding segments such as man-made fibre apparel, technical textiles and athleisure. Higher real interest rates than competing countries, delays in GST refunds and export incentives, and liquidity constraints raise production costs. Dependence on migrant labour also leads to seasonal shortages, suggesting the need to expand manufacturing into labour-surplus regions while increasing female workforce participation and reducing migration-related costs.

Way Forward

Achieving the national target of \$100 billion in Textile and Apparel exports by 2030 requires strengthening competitiveness across the entire value chain. Priority areas include expanding integrated manufacturing ecosystems, increasing investment in man-made fibre production, improving access to affordable finance, streamlining trade processes and ensuring timely tax refunds. Recent trade agreements have improved tariff competitiveness, but long-term success depends equally on efficient logistics, institutional support and predictable business environments.

PYQ Compass

UPSC questions previously asked from the themes discussed on this page.



- Q. Faster economic growth requires increased share of the manufacturing sector in GDP, particularly of MSMEs. Comment on the present policies of the Government in this regard. (GS III – 2023)
- Q. Account for the failure of manufacturing sector in achieving the goal of labour-intensive exports. Suggest measures for more labour-intensive rather than capital-intensive exports. (GS III – 2017)

RELEVANCE

- **GS I: Indian History (Traditional Industries).**
- **GS III: Manufacturing, MSMEs, Industrial Policy, Employment, Exports.**

PYQ Compass

UPSC questions previously asked from the themes discussed on this page.



Q. Consider the following statements with regard to involvement of private entities in India's space programme (2026):

1. The Indian National Space Promotion and Authorisation Centre (IN-SPACe) is an autonomous agency formed to facilitate participation of private entities.
2. Agnikul Cosmos launched the world's first flight using 3D printed rocket engine.
3. Skyroot Aerospace has developed liquid fuel for GSLV.

Which of the statements given above is/are correct?

- (a) 1 only
- (b) 2 and 3 only
- (c) 1 and 2 only
- (d) 1, 2 and 3

Ans : C

IN-SPACe (Indian National Space Promotion and Authorisation Centre) was established in 2020 as an autonomous body under the Department of Space to promote, support, and authorize private sector participation in India's space ecosystem.

Agnikul Cosmos successfully launched its Agnibaan SOrTeD mission, featuring the world's first flight using a single piece 3D-printed semi-cryogenic rocket engine.

The Indian National Space Promotion and Authorisation Centre (IN-SPACe) is an autonomous agency formed to facilitate participation of private entities: IN-SPACe was established in 2020 as a single-window autonomous agency to encourage, support, and authorize private sector participation in India's space activities. Hence **statement 1 is correct.**

Agnikul Cosmos launched the world's first flight using a 3D-printed rocket engine: Agnikul Cosmos achieved this milestone through its Agnibaan SOrTeD mission, which used a single piece 3D-printed semi-cryogenic engine. Hence **statement 2 is correct.**

Skyroot Aerospace developed the Vikram-S suborbital rocket using solid propulsion technology. It has not developed liquid fuel systems for GSLV, whose cryogenic engines were developed by ISRO. Hence **statement 3 is incorrect.**

Q. The Constitution (71st Amendment) Act, 1992 amends the Eighth Schedule to the Constitution to include which of the following languages?

1. Konkani
2. Manipuri
3. Nepali
4. Maithili

Select the correction answer using the code given below :

- (a) 1, 2 and 3
- (b) 1, 2 and 4
- (c) 1, 3 and 4
- (d) 2, 3 and 4

Ans : A

The 71st Amendment, enacted in 1992, included three more languages, i.e. Konkani, Meitei (Manipuri) and Nepali. The 92nd Amendment, added Bodo, Dogri, Santhali and Maithali in 2003, raising the total number of languages to 22. Hence, option (a) is the correct answer.

Practice Questions and answers

Q. With reference to the Vikram-1 launch and India's commercial space sector, consider the following statements:

1. Vikram-1 is India's first privately developed launch vehicle to successfully demonstrate orbital launch capability.
2. The Indian Space Policy, 2023 seeks to enable greater private participation while allowing ISRO to focus more on research and scientific missions.
3. Dedicated launch services offered by Vikram-1 allow customers greater flexibility in selecting orbital destinations and launch schedules compared to rideshare missions.

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: D

Statements 1, 2 and 3 are correct.

- Statement 1 is correct. Vikram-1 marked India's first privately built rocket to demonstrate orbital launch capability.
- Statement 2 is correct. The Indian Space Policy, 2023 opened the space sector to private participation while repositioning ISRO towards research and advanced missions.
- Statement 3 is correct. Vikram-1 follows a dedicated launch model, enabling customers to choose their preferred orbit and launch schedule unlike conventional rideshare launches.

Q. With reference to India's textile sector, consider the following statements:

1. India possesses a fully integrated textile value chain ranging from fibre production to garment exports.
2. The global apparel market is presently dominated by cotton-based products, giving India a natural competitive advantage.
3. PM-MITRA Parks seek to improve competitiveness by integrating infrastructure, skills, finance and market access within a common ecosystem.

Which of the statements given above is/are correct?

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

Answer: A

Statements 1 and 3 are correct.

- Statement 1 is correct. India has an integrated textile value chain covering the entire production process.
- Statement 2 is incorrect. Global apparel trade is increasingly dominated by man-made fibres, while India remains relatively cotton-oriented.
- Statement 3 is correct. PM-MITRA Parks are designed as integrated textile ecosystems.