

ECONOMY GS PAPER III

Credit-Deposit Ratio

Banks in India added more deposits than loans last year, leading to a softening of the credit-deposit ratio.

Key Highlights on Credit Deposit Ratio

- Softening of the **credit-deposit ratio in 2024 to 89.5%**, compared to **94% in 2023**.
- Despite **deposit growth lagging behind advances**, the gap between **fresh deposits and non-food credit** widened to **Rs.2 trillion in 2024**, up from **Rs.1.3 trillion in 2023**.

About Credit-Deposit Ratio

- **Definition:** A financial metric used to assess a bank’s liquidity by comparing its total loans to total deposits for the same period.
- **Representation:** Indicates the percentage of deposits utilized for issuing loans.
- **Calculation:** Total loans issued by the bank divided by its total deposits.
- **Guidelines:** No specific benchmark set by the Reserve Bank of India (RBI); banks manage the ratio based on liquidity and profitability considerations.

Factors Influencing Credit-Deposit Ratio (CD ratio)

- **Increased Loan Demand:** Higher demand for loans can raise the CD ratio.
- **Deposit Mobilization:** Increased deposits can lower the CD ratio if lending does not increase proportionately.
- **Economic Conditions:** Booms or recessions impact both loan demand and deposit growth, influencing the CD ratio.

Implications of High Credit-Deposit Ratio on Banks

- **Profitability:** Indicates active lending, which may enhance profitability if loans are serviced on time.
- **Risk Exposure:** Higher credit exposure could lead to **non-performing assets (NPA)** if repayments are not met.
- **Pressure on Net Interest Margins (NIM):** Increased reliance on lending may narrow NIM, affecting returns on earning assets like loans and investments.
- **Liquidity Risks:** Banks may face challenges in meeting sudden payment obligations or withdrawals due to low liquidity reserves.

Implications of Low Credit-Deposit Ratio on Banks

- **Profitability Impact:** Reflects **insufficient lending**, potentially affecting the bank’s revenue streams.
- **Cautious Lending:** May indicate **economic uncertainty or lack of suitable lending opportunities**.

Implications of Softening Credit-Deposit Ratio on Economy

Pros	Cons
Improved Liquidity in Banking System: More deposits provide banks with greater liquidity to fund loans in the future.	Slower Credit Growth: Lower CD ratio may indicate reduced credit flow to businesses, slowing economic activity.
Stable Financial System: Reduced reliance on lending lowers the risk of non-performing assets (NPAs) .	Reduced Profitability for Banks: Banks may earn less due to lower interest income from loans.
Support for Fiscal Stability: Increased deposits provide a buffer against external economic shocks.	Economic Slowdown: Lower credit uptake can lead to subdued investments and reduced consumption.
Reduced Inflationary Pressure: Lower credit growth can help control inflation by moderating money supply in the economy.	Credit Crunch in Key Sectors: Critical industries may struggle to access necessary financing for growth.
Enhanced Savings Culture: Rising deposits reflect increased public savings, contributing to long-term financial health.	Limited Private Sector Expansion: Fewer loans restrict private-sector capital expansion and job creation.

GS PAPER3- INDIAN ECONOMY

India’s Growing Inequality and Economic Struggles

The article highlights India’s growing economic inequality, with luxury spending rising among the wealthy, while the middle class and small businesses struggle due to inflation, slow wage growth, and policy challenges. It also stresses disparities in education and export competitiveness.

What is India's K-shaped Economy?

1. India's K-shaped economy highlights growing inequality. Some sections of society experience rapid wealth and luxury, while others face financial struggles.
2. Luxury watch imports rose 28% in 2023, but fast-moving consumer goods (FMCG) saw sluggish growth due to higher prices.

What are the Challenges faced by India's Economy?

1. **High Tax Burden and Complex Regulations for Small Businesses**
 - Small businesses struggle due to a high tax burden and complicated regulations.
 - Kirana stores' retail share fell from 33% in 2015-16 to 22% in 2023-24 as quick-commerce platforms gained popularity.
 - GST complexities and increased tariffs further harm small exporters.
2. **Decline in Labour-Intensive Exports**
 - Labour-intensive exports driven by SMEs are declining.
 - Overvaluation of the rupee reduces global competitiveness.
 - Bangladesh's apparel exports grew 7% to \$38 billion in 2024, surpassing Indian exporters.
3. **Educational Disparities**
 - Only 15% of Indian students meet global skill standards, compared to 85% in China (as per Ashoka Mody).
 - Lack of skilled workers limits India's competitiveness in global manufacturing.

How Is the Middle Class Affected?

1. The growth of India's middle class has been slowing for years, with signs it is shrinking further.
2. Low wage growth and sustained food inflation have reduced disposable incomes, forcing families to prioritize essentials.
3. 90% of urban households spent more on essential items in November, the highest in a decade.
4. Subcompact car sales are declining, with inventory piling up, while SUV sales thrive, reflecting income disparities.
5. Maruti Suzuki chairman R.C. Bhargava highlighted that without growth in the lower market, there will be no feeders into the upper market.

What should be done?

1. There is a need to remove GST on gig workers' incomes and tax quick-commerce companies heavily.
2. Companies and consumers should share costs for gig workers' insurance and address environmental issues like excessive plastic waste.

GS PAPER3- SCIENCE AND TECHNOLOGY- AWARENESS IN THE FIELDS OF IT, SPACE, COMPUTERS, ROBOTICS, NANO-TECHNOLOGY, BIO-TECHNOLOGY AND ISSUES RELATING TO INTELLECTUAL PROPERTY RIGHTS**US Proposal Restricting Chips Impacting India**

The article discusses a US proposal to restrict advanced chip exports, including GPUs, to countries like India, aiming to maintain US AI leadership and prevent China's progress. This could hinder India's AI plans, but India might leverage diplomatic ties and local chip design capabilities to mitigate the impact.

What is the US Proposal About Advanced Chip Exports?

1. The US is proposing to restrict the export of advanced computer chips, particularly GPUs, which are essential for AI development.
2. This proposal aims to maintain US leadership in AI technology and prevent China from gaining a technological edge.
3. About 20 key allies of the US would not face these restrictions, but other countries, including India, would have limits on how many chips they can import.

How will this impact global supply chains?

1. The US proposal could disrupt global chip supply chains as key chips designed by Nvidia and AMD are fabricated abroad.
2. Many raw materials come from nations not on the "favoured" list, complicating production.
3. Countries like India, with R&D centers for Nvidia and AMD, may retaliate against restrictions, affecting production.
4. Countries like Israel and EU members, also facing restrictions, could experience similar impacts.
5. India's lack of high-end fabrication units hinders self-reliance; building such facilities requires years and large investments.
6. Supply chains for AI and data-center industries globally may face delays and higher costs due to restricted GPU availability.

What Can India Do?

1. **Leverage Existing Strengths:** India has strong chip-design expertise and a growing data-center industry. Companies like Nvidia and AMD have R&D centers in India. India can use its large domestic market as a testbed for AI innovations.
2. **Diplomatic and Strategic Efforts:** India needs smart diplomacy to negotiate “favored” status with the US. It can leverage its IT services giants and Silicon Valley connections. India’s role as a US military ally against China is also a bargaining point.
3. **Explore Long-Term Alternatives:** If negotiations fail, India will need alternative GPU sources. This requires domestic fabs or overseas facilities owned by Indian businesses. Building such capacity will take years and require enormous investments.

GS PAPER3- ECONOMY-INDIAN ECONOMY AND ISSUES RELATING TO PLANNING, MOBILISATION, OF RESOURCES, GROWTH, DEVELOPMENT AND EMPLOYMENT

India’s Startup Growth Opportunities and Key Challenges

The article highlights India’s rapid startup growth, driven by digital infrastructure, government initiatives, and innovation in emerging technologies. It emphasizes funding challenges, regulatory balance, education-industry collaboration, and regional growth, positioning startups as key to India’s economic future.

What is the current status of India’s Startup?

1. India is the **third-largest startup hub**, with over **1,30,000 recognized startups**, compared to just 400 in 2015-16.
2. **Startup funding grew 15 times** since 2015-16, with private equity and venture capital playing significant roles. In 2024, startups raised over **\$12 billion**, with **75% coming from international sources**.
3. Initiatives like the **Fund of Funds for Startups (FFS)** have catalyzed **Rs 81,000 crore** in funding, creating a multiplier effect.

What Opportunities Do Indian Startups Have?

1. **Advanced Technologies:** Startups have immense opportunities in **AI, ML, big data, quantum computing, genomics, robotics, EVs, drones, and space exploration**. Government initiatives like the **National Quantum Mission** and **India AI Mission** support these fields with significant investments.
2. **Government Support:** The government has allocated **Rs 1 lakh crore** for **R&D**, boosting innovation across industries.
3. **New Sectors:** Policies now allow startups to operate in **space, geospatial technology, defence, and drones**, enabling ventures into cutting-edge domains.
4. **Regional Growth:** Nearly **50% of startups** now come from **Tier II and Tier III cities**, such as Indore, Jaipur, and Ahmedabad, offering untapped growth potential.

What Are the Challenges for India’s Startup?

1. **Access to Patient Capital:** Deep tech startups struggle with long-term funding. Despite raising \$12 billion in 2024, 75% came from international sources. A specialised domestic fund is needed.
2. **Regulatory Concerns:** Corporate mismanagement in startups like Byju’s highlights the need for better governance and self-regulation.
3. **Skill Gaps:** Curricula lack focus on emerging skills like AI and data science, slowing innovation.
4. **IPR Challenges:** India paid \$14.3 billion in IPR royalties in 2024 but earned only \$1.5 billion, indicating innovation gaps.
5. **Geographic Disparity:** Startups in Tier II and III cities need better infrastructure, education, and inclusivity to unlock potential.

What should be done?

1. **Ensure Transparency and Ethical Practices:**
 - Startups must adopt self-regulation to ensure transparency, accountability, and ethical conduct.
 - Strong boards, sound financial management, and mentorship are critical for sustainable growth.
2. **Address Skill Gaps Through Education:**
 - Institutions like IITs and IIMs must align curricula with emerging needs in product development, AI, and data science.
 - Internships and apprenticeships should bridge skill shortages and attract talent to startups.
3. **Adapt Regulatory Frameworks:**
 - Regulations must evolve to accommodate new technologies, balancing innovation with oversight.
 - Pro-innovation policies are essential to maintain India’s global competitiveness in startup ecosystems.
4. **Support Economic Growth Through Startups**
 - Startups should lead in job creation and innovation, driving India’s economic growth.

- Collaborative efforts across sectors, backed by supportive policies, will help achieve the vision of **Viksit Bharat by 2047**.

Governance the Digital Way

India has embarked on an ambitious journey toward digital governance a transformation designed not only to improve citizen services but also to bolster the capabilities of government employees.

About Governance the Digital Way:

- **Definition:** Digital governance involves leveraging technology to improve **efficiency, transparency, and accountability** in government processes.
- **Key Initiatives:**
- **iGOT Karmayogi Platform:** Online training for government employees in public administration, data analytics, and digital technologies.
- **e-Office Initiative:** Digitizes workflows, reducing paperwork and enhancing real-time communication.
- **Government e-Marketplace (GeM):** Streamlines procurement processes, ensuring transparency.
- **Cybersecurity Training:** Educates employees on safeguarding sensitive information in digital platforms.
- **Challenges:**
- Resistance to technological change among employees.
- Digital divide in rural areas with limited access to high-speed Internet.
- Cybersecurity risks due to increased online operations.
- Lack of clear incentives for training outcomes.
- **Solutions:**
- Promote innovation-friendly environments.
- Invest in robust digital infrastructure, especially in rural areas.
- Ensure dynamic and continuous capacity-building programs.
- Develop stringent cybersecurity protocols and employee awareness.

PRELIM FACTS

1.Nautor Land

The Union Home Ministry is deliberating on a proposal to regularize nautor land in Ladakh, allowing locals to claim ownership over government-owned wastelands they have cultivated or tended to for years.

About Nautor Land:

- **Definition:** Nautor refers to barren or wasteland owned by the government that can be allotted to individuals for cultivation or other productive use, subject to approval by competent authorities.
- **Purpose:** Regularizing nautor land grants legal ownership to locals who have utilized such land over the years.
- **History:**
 - **Jammu and Kashmir:** Originated under a rule established by Hari Singh, the former king of Jammu and Kashmir, in 1932.
 - **Himachal Pradesh:** The nautor policy was adopted in 1968 but later halted due to administrative concerns.
- **Found in:** Predominantly implemented in hilly and remote areas, such as **Leh** and **Kargil** in Ladakh and parts of **Himachal Pradesh**.
- **Features:**
 - **Ownership Transfer:** Aimed at granting ownership to locals using government wastelands.
 - **Preservation of Local Interests:** Prevents the exploitation of resources by outsiders.
 - **Cultural and Economic Value:** Recognizes traditional practices of land use, contributing to local livelihoods.

2.US AI Export Rule

In the final days of the Biden administration, a new regulatory framework titled “**Framework for Artificial Intelligence Diffusion**” has been introduced to regulate the export of advanced artificial intelligence (AI) technologies like GPUs.

About US AI Export Rule:

What is it?

- A regulatory framework introduced by the US government to control the export of **AI hardware, particularly GPUs**, based on national security concerns.
- Aims to ensure advanced AI capabilities remain under the purview of the US and its closest allies.

Categories and India's Placement:

1. **Tier 1:**
 - Includes **18 closest US allies** such as Australia, Japan, South Korea, and the UK.
 - Minimal export restrictions; US companies can freely deploy AI technology here.
2. **Tier 2:**
 - Encompasses the **majority of countries**, including India.
 - Restrictions include a **cap on computing power** imports unless hosted in **trusted environments**.
 - Capped at **50,000 advanced AI chips** through 2027, extendable upon bilateral agreements.
3. **Tier 3:**
 - Countries like **Russia, China, and North Korea** face near-total prohibition on importing US AI technology.
4. **Special Provision for India and China:**
 - **India:** Authorized firms can use exported technology for **civilian and military purposes** (excluding nuclear use).
 - **China:** Exported technology is restricted to **civilian applications only**.

Implications for India:

- **IndiaAI Mission:**
 - Potential delays in achieving computing power targets.
 - Restrictions could hamper large-scale **AI data center development** while sparing smaller firms.
- **Strategic Alliances:**
 - Highlights India's growing importance in US foreign policy, but underscores its non-inclusion in Tier 1.
 - Requires bilateral negotiations for relaxed restrictions.
- **Domestic AI Ecosystem:**
 - Limited access to cutting-edge GPUs may slow AI research and innovation.
 - Pushes India towards self-reliance in AI hardware manufacturing.
- **Global Competitiveness:**
 - Could impede India's ability to compete with nations in **Tier 1**, especially in AI-driven industries.

3. Lobia Seeds Germination in Space

Recently, ISRO achieved a significant milestone by successfully germinating lobia (black-eyed pea) seeds in microgravity aboard its Compact Research Module for Orbital Plant Studies (CROPS).

About Lobia Seeds Germination in Space:

- **What it is:**
 - ISRO's experiment involved germinating **lobia seeds** aboard the **CROPS module** to study plant growth under microgravity conditions.
 - The seeds sprouted successfully on the **fourth day**, with visible leaves by the fifth day, marking a milestone in India's space research.
- **Mission name:** Compact Research Module for Orbital Plant Studies (CROPS).
- **Seed/Plant Used:** Lobia (black-eyed pea), a nutrient-dense plant ideal for space farming experiments.
- **Aim:**
 - To develop sustainable food sources for long-term space missions.
 - To test plant growth in conditions mimicking extraterrestrial environments, including microgravity and controlled atmospheric conditions.
- **Significance of Success:**
 - **Support for Space Missions:**
 - Enables astronauts to grow food, reducing dependency on pre-packaged supplies.
 - Contributes to oxygen generation and CO₂ recycling aboard spacecraft.
 - **Technological Advancements:**
 - Demonstrates India's capability to manage complex life-support systems in space.
 - Provides insights into designing space habitats with integrated agriculture.
 - **Psychological Benefits:** Tending to plants offers stress relief and improves mental health for astronauts.
 - **Global Contribution:** Paves the way for India's collaboration in global space farming initiatives, such as those on the **International Space Station (ISS)**.

4. Three Commissioned Ships

India celebrated a historic milestone as three frontline naval platforms INS Nilgiri, INS Surat, and INS Vaghsheer — were commissioned into the Indian Navy.

About Commissioned Ships:				
<u>Ship Name</u>	<u>Built By</u>	<u>Project Name</u>	<u>Features</u>	<u>Significance</u>
INS Nilgiri	Mazagon Dock Shipbuilders Limited (MDL), Mumbai, and Garden Reach Shipbuilders and Engineers (GRSE), Kolkata	Project 17A (Nilgiri-class stealth frigates)	<ul style="list-style-type: none"> – Multi-mission stealth frigate for “blue water” operations – Equipped with supersonic surface-to-surface missiles, Medium Range Surface-to-Air Missiles (MRSAMs), and advanced close-in weapon systems 	First of seven frigates under Project 17A, ensuring versatile capability in anti-air, anti-surface, and anti-submarine warfare
INS Surat	Mazagon Dock Shipbuilders Limited (MDL), Mumbai	Project 15B (Visakhapatnam-class stealth guided missile destroyers)	<ul style="list-style-type: none"> – India’s first AI-enabled warship – Equipped with surface-to-air missiles, anti-ship missiles, and torpedoes – Powered by a Combined Gas and Gas (COGAG) propulsion system, achieving speeds exceeding 30 knots – Designed for “network-centric” warfare 	Fourth and final destroyer of Project 15B, enhancing India’s offensive and defensive naval capabilities
INS Vaghsheer	Mazagon Dock Shipbuilders Limited (MDL), Mumbai	Project 75 (Kalvari-class submarines)	<ul style="list-style-type: none"> – Diesel-electric attack submarine based on the French Scorpene-class design – Equipped with wire-guided torpedoes, anti-ship missiles, and advanced sonar systems – Features modular construction with future upgrade potential for Air Independent Propulsion (AIP) technology 	Sixth and final submarine under Project 75, reinforcing India’s underwater combat and intelligence-gathering capabilities

Commissioning together:

- **Historic First:** For the first time, a **destroyer (INS Surat)**, a **frigate (INS Nilgiri)**, and a **submarine (INS Vaghsheer)** were commissioned on the same day.
- **“Made in India” Milestone:** All three platforms were indigenously built, showcasing India’s shipbuilding prowess and commitment to Atmanirbhar Bharat (self-reliant India).
- **Strategic Impact:** The additions bolster India’s maritime defense, increase deterrence capabilities, and support its strategic influence in the **Indian Ocean Region (IOR)**.

5. Bhargavastra micro-missile system

India has successfully conducted tests of its first indigenous micro-missile system named Bhargavastra.

About Bhargavastra micro-missile system

- The Bhargavastra is **India’s first domestically** developed micro-missile system designed **to combat swarm drone threats**.
- **Developed by:** Economic Explosives Ltd

Features:

- It is a **counter-drone system** capable of **detecting small aerial vehicles** at over **6 km range** and neutralizing them **using guided micro munitions**.
- The system can **launch over 64 micro missiles** simultaneously.
- It is **capable of rapid deployment** on a mobile platform and can engage targets at distances exceeding 2.5 km.
- It has been **designed for operations in diverse terrains**, including high-altitude regions, the system meets specific military operational requirements.

Importance:

- The system provides an **economical solution for the Indian Army** to counter large-scale drone attacks.
- It also offers a **reliable defense against small drones** in swarm attacks.

Swarm Drones

Swarm drones are groups of drones that operate together to perform tasks without direct human control.

They use advanced algorithms and communication technologies to coordinate their actions, similar to natural

swarms like flocks of birds or schools of fish.

Swarm drones can efficiently carry out missions while minimizing danger to personnel. They can search out, overwhelm, and destroy enemy defenses, paving the way for manned aircraft.

ANSWER WRITING

Q. Examine India's strategic challenges in balancing its continental and maritime security interests in the Indo-Pacific region. Discuss how geographical constraints and resource allocation impact India's naval aspirations while suggesting a roadmap for enhancing its maritime capabilities without compromising land security.

India's strategic dilemma in balancing continental and maritime security in the Indo-Pacific stems from its dual focus on land borders with adversaries like China and Pakistan and its maritime interests across vital sea lanes. With geographical constraints and limited resources shaping its defense priorities, India must optimize its approach to safeguard both domains effectively.

India's Strategic Challenges in Balancing Continental and Maritime Security Interests in the Indo-Pacific Region

- **Prioritizing Land Security Over Maritime Needs:** India's contested land borders, especially in the Himalayas, necessitate a significant allocation to land forces, leaving maritime security secondary.
For example: India commits **85%** of its **military forces to land security**, driven by recurring standoffs with China in the Ladakh region.
- **China's Dual Threat:** China's aggression along India's land borders and growing presence in the Indian Ocean forces India to divide its focus.
For example: The **China-Pakistan Economic Corridor (CPEC)** and **PLA Navy** activities in the Indian Ocean compel India to address dual threats.
- **Indo-Pacific Rivalries and Alliances:** Navigating strategic partnerships like **QUAD** without over-committing risks exacerbating tensions with China while maintaining regional balance.
For example: India participates in **Malabar exercises** but refrains from fully endorsing **AUKUS** to avoid over-polarization in the Indo-Pacific.
- **Economic Constraints on Military Expansion:** Budgetary limitations restrict India's ability to scale its navy while ensuring sufficient investment in land forces.
For example: India allocates only **14-17%** of its defense budget to the navy, hindering its maritime modernization plans.
- **Limited Maritime Influence:** India struggles to expand its maritime reach eastward into the Pacific Ocean due to competing priorities and limited naval capacity.
For example: India's naval focus remains centered on the Indian Ocean, with limited operations in the **South China Sea** compared to the US or Japan.

Geographical Constraints and Resource Allocation Impacting India's Naval Aspirations

- **Landlocked Neighbors and Peninsular Shape:** India's geography demands securing long land borders and vast coastline, straining its resources.
For example: India's strategic orientation prioritizes **Himalayan defense** over extended naval operations.
- **Challenges in Island Territories:** Islands like Andaman and Nicobar require heavy investments for coastal and port defense, diverting resources from open-sea capabilities.
For example: India's **Andaman and Nicobar Command (ANC)** strengthens **IOR security** but limits funding for blue-water navy expansion.
- **Straits of Malacca and Chokepoints:** India's reliance on crucial chokepoints for trade heightens vulnerability to maritime disruptions.
For example: Securing the **Malacca Strait** is vital for energy imports, requiring enhanced naval presence.
- **Dependency on Importing Technology:** India's indigenous naval production lags, relying on imports for advanced ships and submarines, slowing its maritime capability growth.
For example: India acquired **Scorpene-class submarines** from **France** due to delays in domestic production.
- **Coastal Infrastructure Deficiencies:** Insufficient port facilities and outdated shipyards hinder the navy's operational readiness and maritime ambitions.
For example: Lack of modern port facilities at **Mumbai** and **Vizag** delays fleet deployments during crises.

Roadmap for enhancing maritime capabilities without compromising land security

- **Focus on coastal defense systems:** Strengthen coastal surveillance, missile systems, and naval air bases to ensure near-sea dominance without stretching naval assets.
For example: India has deployed the **Sagar Prahari Bal** to enhance coastal and port security.
- **Increase naval budget incrementally:** Enhance naval modernization by reallocating resources through efficiency in Army operations, enabling balanced resource allocation.
For example: The induction of **INS Vikrant** highlights India's commitment to modernizing its naval fleet.
- **Strategic partnerships:** Leverage partnerships like **QUAD** and logistics agreements to reduce unilateral costs of maritime operations and capacity-building.
For example: India signed logistics agreements with the **US and Australia** for joint maritime exercises.

- **Develop dual-use infrastructure:** Build ports and airstrips for both commercial and military use to enhance maritime presence cost-effectively.
For example: The **Chabahar Port** provides economic benefits while securing India's influence in the Persian Gulf.
- **Strengthen indigenous capabilities:** Invest in Atmanirbhar Bharat initiatives for naval shipbuilding and submarine production to reduce dependence on imports.
For example: **INS Arihant**, India's indigenous nuclear submarine, is a product of the **Make in India** initiative.

A balanced approach to India's security requires integrating robust maritime and continental strategies. Prioritizing indigenous defense production, enhancing regional cooperation like Quad partnerships, and optimizing resource allocation can ensure comprehensive security. Future-focused investments in AI-driven surveillance and multi-domain capabilities will strengthen India's role as a credible power in the Indo-Pacific.

MCQ

- Consider the following statements about turmeric exports from India:
 - India dominates the global turmeric market with over 60% share in exports.
 - The USA is India's largest turmeric export destination.
 - India does not import turmeric as it is self-sufficient in production.
 How many of the above statements is/are correct?
 a) Only one **b) Only two**
 c) All three d) None
- The first private satellite constellation launched by Pixxel aims to achieve which of the following objectives?
 - Hyperspectral imaging for resource management.
 - Precision agriculture through detailed crop analysis.
 - Monitoring global carbon emissions using synthetic aperture radar (SAR).
 - Enhancing military surveillance capabilities globally.
 Select the correct answer using the codes given below:
a) 1 and 2 only b) 2 and 3 only
 c) 1, 2, and 3 only c) 1, 2, and 3 only
- Consider the following statements regarding the composition of the Atomic Energy Commission:
 - The Secretary of the Department of Atomic Energy is the Chairperson of the AEC.
 - It includes eminent scientists and key ex-officio members from various government departments.
 - The Prime Minister of India serves as the ex-officio President of the AEC.
 How many of the above statements is/are correct?
 a) Only one **b) Only two**
 c) All three d) None
- The term 'nautor' refers to:
 - A traditional system of irrigation used in arid regions
 - A method of land leasing for agriculture in mountainous regions
 - A system of land cultivation on government owned land**
 - A legal mechanism for granting land rights in the tribal areas of India
- Maharishi Agasthyar is credited with which one of the following contributions to Indian tradition?
 - Establishing the first Vedic Ashram in the northern Himalayan region
 - Introducing the Tamil language and grammar to South India**
 - Writing the Arthashastra
 - Propagating the teachings of the Bhagavad Gita
- Fermions and bosons are used in the relation with:
 - A system of categorizing particles by their size
 - A classification of particles based on their charge
 - A method of measuring particle mass
 - A system of classification of particles based on their spin properties**
- With reference to 'Credit-Deposit Ratio', consider the following statements:
 - Higher demand for loans can lower the Credit-Deposit ratio.
 - High Credit-Deposit Ratio indicates active lending, which may enhance profitability if loans are serviced on time.
 Which of the statements given above is/are incorrect?
a) 1 only b) 2 only
 c) Both 1 and 2 d) Neither 1 nor 2
- The objective of 'Kampala Declaration (2026–2035)' is to:
 - focus on Transformative agri-food systems for Africa.**
 - bridge the digital divide vis - vis with first world countries.
 - accelerate the efforts in the direction of achievement of Universal Literacy.
 - None of the above
- The primary objective of the Bhashini Platform is to:
 - Promote cultural exchange between India and other countries
 - Create private paid tools for machine translation in foreign languages
 - Enable AI-based translation services in Indian languages for digital inclusion**
 - Regulate English language publications by Indian authors
- Consider the following pairs:

Naval Warships-----	Associated Projects
1. INS Nilgiri-----	Project 17A
2. INS Vaghsheer-----	Project 75
3. INS Surat-----	Project 15B

 Which of the above pairs are correctly matched?
 a) 1 and 2 only b) 2 and 3 only
 c) 1 and 3 only **d) 1, 2 and 3**