

ForumIAS

F

Prelims Marathon

3rd week June, 2026

HISTORY
ECONOMICS
POLITY
SCIENCE AND TECHNOLOGY
GEOGRAPHY AND ENVIRONMENT

INDEX

Schemes in News – VII.....	2
Defense News.....	7
Defense News-I.....	12
Defense and Security News-II.....	17
Defense and Security News-III	23
Defense and Security News-IV.....	27
Defense and Security News-V	31

Schemes in News – VII

1. Which of the following statements with regard to the Bhashini initiative is/are correct?

1. It is the National Language Translation Mission (NLTM) designed as a digital public infrastructure developed by the MeitY.
2. The platform is restricted to urban e-commerce translation, avoiding any structural integration with rural governance portals.

Select the answer using the code given below:

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2

Correct Answer: (a)

Detailed Explanation:

- **Statement 1 is correct:** Bhashini is India's National Language Translation Mission (NLTM). It functions as an AI-powered digital public infrastructure to break language barriers, developed by the Ministry of Electronics and Information Technology (MeitY).
- **Statement 2 is incorrect:** Bhashini is actively focused on rural digital inclusion and participatory democracy. To build an inclusive multilingual e-governance ecosystem, a Memorandum of Understanding (MoU) links MeitY with the Ministry of Panchayati Raj (MoPR) to integrate its real-time speech-to-text and translation engines directly into rural governance platforms like eGramSwaraj.

2. Consider the following statements regarding the StartUp India initiative:

1. The initiative is a flagship campaign implemented through a dedicated team under the DPIIT.
2. To improve ease of doing business, the scheme operates through a structured 19-Point Action Plan framework covering lifecycle support from ideation to funding.
3. The cornerstone funding mechanism, the Fund of Funds for Startups (FFS), holds a ₹10,000 crore corpus managed by the IRDAI.

Select the answer using the code given below:

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

Correct Answer: (a)

Detailed Explanation:

- **Statement 1 is correct:** StartUp India is a flagship program launched on January 16, 2016 (celebrated as National StartUp Day) to catalyze a strong, inclusive innovation ecosystem. It is run by a specialized team within the DPIIT, Ministry of Commerce and Industry.
- **Statement 2 is correct:** The scheme's baseline implementation model uses a 19-Point Action Plan designed to lower compliance burdens, provide fast-track patent and IPR facilitation, and set up clear regulatory pathways for early-stage risk-taking.
- **Statement 3 is incorrect:** While the Fund of Funds for Startups (FFS) does manage a ₹10,000 crore corpus to feed risk capital into Alternative Investment Funds (AIFs), it is managed by the Small Industries Development Bank of India (SIDBI).

3. Consider the following statements regarding the Export Promotion Mission (EPM):

1. It is a unified national framework established in the Union Budget 2025–26 with a mission lifespan running from FY 2025–26 to FY 2030–31.
2. The DGFT serves as the nodal implementing agency for this mission.
3. The financial pillar of the mission contains a ₹20,000 crore Credit Guarantee Scheme for Exporters (CGSE) executed through the Export Credit Guarantee Corporation (ECGC).

Select the answer using the code given below:

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

Correct Answer: (a)

Detailed Explanation:

- **Statement 1 is correct:** The EPM was introduced in the Union Budget 2025–26 as a multi-year, mission-mode national framework spanning from FY 2025–26 to FY 2030–31 to boost the competitive edge of Indian exporters.
- **Statement 2 is correct:** The platform is digitally driven, bringing together multiple fragmented trade-support channels under the Directorate General of Foreign Trade (DGFT) as the main regulatory and implementation node.
- **Statement 3 is incorrect:** Although the EPM features a ₹20,000 crore Credit Guarantee Scheme for Exporters (CGSE) to deliver 100% government-backed, collateral-free credit, this specific sub-component is operationalized through the National Credit Guarantee Trustee Company (NCGTC).

4. Consider the following statements regarding the Production-Linked Incentive (PLI) Scheme for White Goods:

1. It is a Central Sector Scheme targeting the domestic component manufacturing ecosystems of Air Conditioners and LED lights.
2. The monitoring authority for this scheme is the Empowered Group of Secretaries (EGoS), which is chaired by the Union Minister of Commerce and Industry.
3. It applies for the duration of FY 2021-22 to FY 2028-29..
4. To maintain open fiscal elasticity, the scheme is built as a demand-driven model with an open-ended financial expenditure.

Which of the statements given above are correct?

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

Correct Answer: (a)

Detailed Explanation:

- **Statement 1 is correct:** The PLI Scheme for White Goods is a specialized Central Sector Scheme designed to build deep domestic supply chains and eliminate import dependencies by funding core electronic and mechanical sub-assemblies for ACs and LED lights.
- **Statement 2 is incorrect:** While the Ministry of Commerce and Industry oversees development, the monitoring framework sits under the Empowered Group of Secretaries (EGoS), which is chaired by the Cabinet Secretary, not the Union Minister.
- **Statement 3 is correct:** Using FY 2019–20 as the fixed Base Year. The PLI Scheme for White Goods runs from FY 2021-22 to FY 2028-29.

- **Statement 4 is incorrect:** The scheme is strictly fund-limited, not open-ended. The total financial incentives are capped within a fixed, Cabinet-approved structural budget to enforce strict fiscal discipline.

5. Which of the following statements with regard to the 'LEAPS 2025' initiative is/are correct?

1. It is an international tariff-tracking index published jointly by the World Bank and the World Trade Organization to monitor global shipping routes.
2. The administrative registration process for this platform is managed through the corporate portal of the SEBI.

Select the answer using the code given below:

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2

Correct Answer: (d)

Detailed Explanation:

- **Statement 1 is incorrect:** LEAPS 2025 (Logistics Excellence, Advancement, and Performance Shield) is an indigenous national benchmarking and recognition initiative launched during the 4th Anniversary of PM GatiShakti celebrations in New Delhi to spotlight excellence, ESG compliance, and efficiency inside India's internal logistics space.
- **Statement 2 is incorrect:** Applications and registration protocols for the 13 competitive categories of LEAPS 2025 are organized through the sovereign Rashtriya Puraskar Portal (awards.gov.in) and issued by the DPIIT, Ministry of Commerce and Industry, having no structural link to SEBI.

6. Consider the following statements regarding the Logistics Ease Across Different States (LEADS) 2025 index:

1. It is a national index released by the DPIIT to benchmark supply chain performance across Indian States and UTs.
2. The assessment engine clusters states and UTs into performance-based tiers classified as Leaders, Achievers and Aspirers.
3. It benchmark logistics performance of States/UTs to lower logistics costs and improve efficiency in infrastructure planning and policy reforms.

Select the answer using the code given below:

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

Correct Answer: (d)

Detailed Explanation:

- **Statement 1 is correct:** The LEADS index is an analytical tool engineered by the DPIIT under the Ministry of Commerce and Industry to assess regulatory, infrastructural, and procedural ease within state-level logistics channels.
- **Statement 2 is correct:** Rather than using a rigid raw numerical ladder, the framework creates competitive peer groups, sorting states into categorical groups: Leaders, Achievers, and Aspirers.

- **Statement 3 is correct:** LEADS 2025 uses advanced tech workflows like API-enabled corridor tracking for real-time speed evaluations on major transport segments. It combines industry perceptions with an automated interactive digital dashboard for live analytics.

7. Consider the following statements regarding the BHARATI initiative:

1. It is a national startup-support and export-acceleration platform launched under the administrative control of the Food Safety and Standards Authority of India (FSSAI).
2. The primary quantifiable target of the platform is to support 100 agri-food startups and help scale India's sector exports to \$50 billion by 2030.
3. The platform's technological mandate focuses on traditional manual grading techniques, avoiding the use of blockchain or AI tools in the supply chain.

Select the answer using the code given below:

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

Correct Answer: (b)

Detailed Explanation:

- **Statement 1 is incorrect:** BHARATI (Bharat's Hub for Agritech, Resilience, Advancement and Incubation for Export Enablement) was set up by APEDA (Agricultural and Processed Food Products Export Development Authority) under the Ministry of Commerce & Industry, not the FSSAI.
- **Statement 2 is correct:** The platform has a clear dual target: to induct a select cohort of 100 agri-food and agritech startups through an incubation path while scaling national export output to hit \$50 billion by 2030.
- **Statement 3 is incorrect:** The framework encourages high-tech integration, favoring startups that build AI-based quality inspections, blockchain-enabled traceability models, and IoT-enabled cold chain systems to address trade challenges like spoilage and quality control.

8. Consider the following statements regarding the Credit Guarantee Scheme for Startups (CGSS):

1. The scheme is operationalized through the National Credit Guarantee Trustee Company (NCGTC) under the Ministry of Commerce and Industry.
2. Venture debt, working capital, optionally convertible debt, and subordinated debt instruments are explicitly eligible for guarantee cover.
3. Eligible for borrowers is DPIIT-recognized startups that are not in default to any lending institution.
4. Non-Banking Financial Companies (NBFCs) are barred from participating as eligible lenders under the scheme's guidelines.

Which of the statements given above are correct?

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

Correct Answer: (d)

Detailed Explanation:

- **Statement 1 is correct:** The CGSS provides collateral-free credit support to DPIIT-recognized startups. It is run under the regulatory umbrella of the DPIIT and executed by the National Credit Guarantee Trustee Company (NCGTC).

- **Statement 2 is correct:** These exact instruments are explicitly eligible for guarantee cover. Managed by the National Credit Guarantee Trustee Company (NCGTC), the scheme provides collateral-free or partially secured debt funding to DPIIT-recognised startups. The revised scheme limits have been raised from ₹10 crore to ₹20 crore per borrower to better support growth-stage funding demands.
- **Statement 3 is correct:** Eligible borrowers are DPIIT-recognized startups that are not in default to any lending institution. The coverage model matches risk tiers: it covers 85% of the default amount for loans up to ₹10 crore, and drops to 75% for loan allocations between ₹10 crore and ₹20 crore.
- **Statement 4 is incorrect:** NBFCs are not barred. They are fully eligible lenders provided they hold a credit rating of BBB and above with a net worth of at least ₹100 crore. Scheduled commercial banks and SEBI-registered AIFs are also eligible.

9. Which of the following statements with regard to The Sanchar Mitra Scheme is/are correct?

1. It is a volunteer-based digital outreach initiative launched by the Ministry of Communications, Department of Telecommunications (DoT).
2. University students from telecom, electronics, computer science, and cybersecurity streams are nominated as Sanchar Mitras.

Select the answer using the code given below:

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2

Correct Answer: (c)

Detailed Explanation:

- **Statement 1 is correct:** The Sanchar Mitra Scheme is a specialized digital hygiene and outreach campaign launched by the DoT to build public awareness around cyber fraud, telecom safety, and 5G/6G systems.
- **Statement 2 is correct:** The campaign focuses on mobilizing youth talent for hardware maintenance. It fields university students from streams like cybersecurity, electronics, and computer science as Sanchar Mitras to run local digital safety clinics.

10. Consider the following statements regarding the 'Gyan Post' Service:

1. It is an urban-centered express courier service developed by the Ministry of Culture to ship commercial magazines at standard tariff rates.
2. The pricing structure for this service is built as a slab-based or weight-based tiered pricing model.
3. The service allows for eligible materials like non-commercial educational books and study materials.
4. The permissible weight envelope for a Gyan Post shipment parcel is bound between a minimum of 300 grams and a maximum of 5 kilograms.

Which of the statements given above are correct?

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

Correct Answer: (b)

Detailed Explanation:

- **Statement 1 is incorrect:** Gyan Post is run by the Department of Posts, Ministry of Communications. It is designed to offer subsidized, last-mile delivery of non-commercial educational materials across both rural and urban areas. It explicitly bans advertisements and commercial publications.
- **Statement 2 is correct:** The service utilizes a slab-based or weight-tiered pricing layout to ensure low, predictable shipping costs for academic and cultural literature.
- **Statement 3 is correct:** To prevent commercial abuse, items must carry the publisher's imprint, allow easy inspection by postal workers (via unsealed wrapping), and contain no personal letters or promotional flyers.
- **Statement 4 is correct:** The regulatory criteria enforce strict shipping boundaries, capping parcel sizes with a minimum weight threshold of 300 grams and a maximum ceiling of 5 kilograms.

Defense News

1. Consider the following statements regarding the PRAHAAR strategy:

1. It is India's first publicly articulated National Counter-Terror Strategy released by the Ministry of Home Affairs.
2. The core framework defines and links terrorism to specific regional identities to enhance targeted profiling.
3. It utilizes a seven-pillar model that incorporates a whole-of-society approach alongside human rights and rule of law-based processes.

How many of the above statements are correct?

- (a) Only one
- (b) Only two
- (c) Only three
- (d) All three

Correct Answer: (b)

Detailed Explanation:

- **Statement 1 is correct:** PRAHAAR was officially released by the Ministry of Home Affairs (MHA) as India's first comprehensive, publicly articulated National Counter-Terror Strategy.
- **Statement 2 is incorrect:** The strategy explicitly avoids linking terrorism with any specific religion, identity, or community, maintaining a strictly neutral and professional focus on threat perception.
- **Statement 3 is correct:** The framework is structured around seven distinct pillars including prevention, responses, internal capacity synergy, human rights/rule of law, radicalization mitigation, international cooperation, and a whole-of-society recovery approach.

2. Consider the following statements regarding Project Chetak:

1. It is an infrastructure development program implemented under the administrative jurisdiction of the Ministry of Home.
2. The project's primary mandate is to build, upgrade, and maintain strategic border roads across Rajasthan, Punjab, and northern Gujarat.
3. It is executed by the Border Roads Organisation (BRO), which was brought fully under the Ministry of Defence in the year 2015.
4. The project's geographic footprint is limited to coastal/maritime security zones, excluding any border road construction.

How many of the above statements are correct?

- (a) Only one

- (b) Only two
- (c) Only three
- (d) All four

Correct Answer: (b)

Detailed Explanation:

- **Statement 1 is incorrect:** Project Chetak is executed by the Border Roads Organisation (BRO), which operates entirely under the administrative control of the Ministry of Defence.
- **Statement 2 is correct:** The project is dedicated to fortifying India's western frontier, maintaining strategic feeder lines to the International Border across Rajasthan, Punjab, and northern Gujarat.
- **Statement 3 is correct:** Established on May 7, 1960, the BRO was historically funded through separate civilian channels but was brought completely under the Ministry of Defence in 2015 to streamline strategic border infrastructure.
- **Statement 4 is incorrect:** Project Chetak is explicitly a land-based frontier road-building mechanism covering over 4,000 km of roads and 214 km of ditch-cum-bund installations. It is not a maritime security project.

3. With reference to the Pinaka Multi Barrel Rocket Launcher system, consider the following statements:

1. The platform is developed indigenously by the DRDO's ARDE.
2. The baseline Pinaka Mk-I variant has an operational strike range of 100 km.

Select the correct answer using the code given below:

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2

Correct Answer: (a)

Detailed Explanation:

- **Statement 1 is correct:** Pinaka is a battle-proven, all-weather, indirect-fire artillery system designed and engineered by the DRDO's ARDE laboratory to saturate area targets rapidly.
- **Statement 2 is incorrect:** The baseline Pinaka Mk-I variant has an operational range of 38 km (originally 37.5 km). It is the new, distinct *Pinaka Long Range Guided Rocket (LRGR-120)* variant that is undergoing testing to reach the 120 km threshold.

4. This Medium Altitude Long Endurance (MALE) Unmanned Aerial Vehicle (UAV) is capable of reaching an altitude of 35,000 feet, maintaining an airspeed of 150 knots, and remaining airborne for up to 45 consecutive hours. It is primarily utilized for Intelligence, Surveillance, and Reconnaissance (ISR) missions and is manufactured by Israel Aerospace Industries (IAI). Identify this system:

- (a) Heron Mark-II
- (b) Predator B (MQ-9B)
- (c) Rustom-2
- (d) Tapas-BH-201

Correct Answer: (a)

Detailed Explanation:

- **Option (a) is correct:** The provided performance metrics (35,000 feet ceiling, 150 knots speed, 45-hour maximum flight endurance, and half-tonne payload capacity) specifically define the Heron Mark-II.

II MALE UAV manufactured by Israel Aerospace Industries (IAI), which India plans to procure and locally manufacture.

5. Consider the following statements regarding the Long Range Anti-Ship Hypersonic Missile (LR-AShM) unveiled by DRDO:

1. It features a delta-wing design capable of conducting quasi-ballistic flight paths with low-altitude, mid-course maneuvers.
2. The system achieves a peak velocity of Mach 2, dropping down to sub-sonic speeds during its final glide phase.
3. For terminal homing on moving targets at extended ranges, the missile integrates an X-band radar seeker.

Select the correct answer using the code given below:

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

Correct Answer: (b)

Detailed Explanation:

- **Statement 1 is correct:** The LR-AShM uses a sophisticated delta-wing profile to enable high-speed aerodynamic lift, allowing it to perform unexpected mid-air skips and low-altitude terrain masking maneuvers.
- **Statement 2 is incorrect:** The missile is a true hypersonic system powered by a two-stage solid rocket motor that achieves a peak velocity of Mach 10 and maintains a hypersonic glide profile exceeding Mach 5+.
- **Statement 3 is correct:** To locate and lock onto complex moving naval vessels or coastal target arrays up to 1,500 km away, the vehicle deploys a built-in 50 km range X-band radar seeker for precise terminal guidance.

6. Which of the following statements with regard to the Golden Dome missile defense framework is/are correct?

1. It is a multi-layered, global-scale strategic system-of-systems shield officially introduced by the US administration.
2. The system was originally established in the 1980s under the name Iron Dome for America before being re-launched in 2025.

Select the answer using the code given below:

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2

Correct Answer: (a)

Detailed Explanation:

- **Statement 1 is correct:** The Golden Dome is a high-profile multi-layered defensive shield designed by the US administration to provide near-100% interception protection against incoming ballistic, cruise, and hypersonic missiles.

- **Statement 2 is incorrect:** The project was announced recently in January 2025 via an executive order, initially labeled as the Iron Dome for America. It was shortly renamed the Golden Dome to mirror the global, grand scale of Ronald Reagan's 1980s Strategic Defense Initiative (SDI).

7. Which of the following statements with regard to India's indigenous Man Portable Anti-Tank Guided Missile (MPATGM) is/are correct?

1. It is a third-generation, fire-and-forget weapon system incorporating both top-attack and direct-attack capabilities.
2. The missile is equipped with a miniaturized Imaging Infrared (IIR) seeker to support full day-and-night combat.

Select the answer using the code given below:

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2

Correct Answer: (c)

Detailed Explanation:

- **Statement 1 is correct:** The MPATGM is a 3rd-generation, fire-and-forget armor-piercing system engineered indigenously by the DRDO for infantry and special forces, featuring specialized top-attack flight modes to target the vulnerable upper armor of tanks.
- **Statement 2 is correct:** To achieve autonomous tracking without continuous operator wire-guidance after launch, it utilizes an advanced, integrated day/night passive Imaging Infrared (IIR) terminal target seeker. Both statements are entirely correct.

8. Consider the following statements regarding the Bhairav Battalions of the Indian Army:

1. They are specialized light combat units introduced to bridge the operational gap between standard infantry and elite Para Special Forces.
2. Each Bhairav Battalion operates as a massive structural formation consisting of a minimum of 100 highly trained combat personnel.
3. These units are operationally paired with integrated, all-arms 'Rudra Brigades' combining artillery, armor, drones, and logistics.

Select the answer using the code given below:

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

Correct Answer: (b)

Detailed Explanation:

- **Statement 1 is correct:** Bhairav Battalions were conceived by Army Headquarters as highly agile, high-speed offensive tools to execute special-forces-style operations throughout tactical and operational depths.
- **Statement 2 is incorrect:** These are lean, specialized light tactical groups. Each individual Bhairav Battalion contains a compact complement of around 250 personnel drawn across multiple arms.
- **Statement 3 is correct:** To maximize cross-domain combat lethality, these battalions are supported by the newly formed Rudra Brigades—integrated all-arms networks that bind infantry, armor, artillery, and unmanned aerial surveillance into a unified front.

9. Consider the following statements regarding the Oreshnik missile system:

1. It is an intermediate-range ballistic missile (IRBM) developed and deployed by the Russian Federation.
2. The platform is capable of flying at hypersonic speeds, with velocity estimates reaching Mach 5 to Mach 10+.
3. It has a nuclear-capable operational architecture with the capability to modify its flight trajectory mid-course.

Select the answer using the code given below:

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

Correct Answer: (d)

Detailed Explanation:

- **Statement 1 is correct:** The Oreshnik is a Russian intermediate-range ballistic missile (IRBM) derived from the RS-26 Rubezh design that was recently deployed in active regional conflict zones.
- **Statement 2 is correct:** The missile is built to easily penetrate air defense networks, traveling at hypersonic speeds ranging from entry levels of Mach 5 to peak tracking velocities exceeding Mach 10.
- **Statement 3 is correct:** The weapon system is highly versatile; it is structurally nuclear-capable (while accepting conventional warheads) and can adjust its terminal and mid-course trajectories dynamically to evade modern interceptor batteries. All statements are correct.

10. Consider the following statements regarding the National Improvised Explosive Device Data Management System (NIDMS):

1. It is a secure, digital multi-agency platform tracking and compiling historical blast incident records in India dating back to 1999.
2. The physical and operational command headquarters of NIDMS is established at the NSG garrison in Manesar, Haryana.
3. The system operates under the exclusive administrative jurisdiction of the Ministry of Defense.

Select the answer using the code given below:

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

Correct Answer: (a)

Detailed Explanation:

- **Statement 1 is correct:** NIDMS is a unique national forensic platform engineered to break down institutional information silos by mapping out signature linking, explosive profiles, and modus operandi of all domestic bomb blasts since 1999.
- **Statement 2 is correct:** The specialized system is housed at the National Security Guard (NSG) center in Manesar, allowing state police teams and central forces to query historical post-blast data patterns.
- **Statement 3 is incorrect:** NIDMS was inaugurated by the Union Home Minister and functions directly under the administrative ambit of the Ministry of Home Affairs (MHA), leveraging the NSG as the premier national counter-terror and post-blast analysis node.

Defense News-I

1. Which of the following statements regarding the features of the Discombobulator weapon framework are correct?

1. It operates as an integrated multi-domain system combining directed-energy, acoustic, visual, and electronic warfare capabilities.
2. The Active Denial System sub-component functions as a thermal heat ray designed to cause an intense burning sensation to disperse personnel.
3. The Visual Dazzler component relies on low-frequency acoustic pulses to induce structural target fractures in buildings.
4. The Vortex Ring Generator sub-component uses high-pressure air pulses capable of delivering specialized irritants to disorient personnel.

Select the correct answer using the code given below:

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

Correct Answer: (a)

Detailed Explanation:

- **Statement 1 is correct:** The "Discombobulator" is understood by defense experts to be a combined "system-of-systems" integrating electronic warfare, cyber, visual, acoustic, and directed-energy mechanisms to disable heavily defended positions.
- **Statement 2 is correct:** The Active Denial System (ADS) is a non-lethal directed-energy weapon that emits a millimeter-wave heating beam to create an immediate, intolerable burning sensation on the skin, causing rapid retreat.
- **Statement 3 is incorrect:** Visual Dazzlers are high-intensity pulsing laser systems, not acoustic tools. They emit bright, concentrated beams of light to temporarily blind and disorient hostile personnel on the battlefield.
- **Statement 4 is correct:** The Vortex Ring Generator uses high-velocity, high-pressure air pulses to strike non-line-of-sight personnel or deploy chemical irritants (like stink bombs) to trigger nausea and disorientation.

2. Consider the following statements with regard to the Suryastra rocket system:

1. It is India's first indigenous, universal multi-calibre long-range rocket launcher system designed for precision surface-to-surface strikes.
2. The system has been inducted into the Indian Army through an emergency procurement contract signed with DRDO.
3. The launcher is structurally restricted to stationary concrete pads and can be adapted to wheeled vehicular platforms.

Select the answer using the code given below:

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

Correct Answer: (b)

Detailed Explanation:

- **Statement 1 is correct:** Suryastra is a multi-calibre system engineered to execute precision surface-to-surface ballistic strikes at ranges spanning 150 km and 300 km.
- **Statement 2 is incorrect:** The Indian Army prioritized its deployment through a ₹293-crore emergency procurement contract executed with NIBE Ltd. in an industrial partnership with Elbit Systems.
- **Statement 3 is correct:** The platform is designed for high tactical mobility. It is fully adaptable to multiple wheeled tactical truck platforms including 4×4, 6×6, and 8×8 configurations.

3. Consider the following statements with regard to the Direct Firing Sight Navigation System (DFSNS):

1. It is a joint artillery navigation and targeting package produced through an industrial agreement signed between India and France.
2. The system integrates Safran's SIGMA 30N inertial navigation system, enabling full autonomous positioning and firing in GPS-denied environments.
3. It incorporates the CM3-MR direct firing sight utilizing thermal and optical tracking to engage visible targets and anti-drone defenses.

Select the answer using the code given below:

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

Correct Answer: (d)

Detailed Explanation:

- **Statement 1 is correct:** India and France signed a strategic industrial agreement to jointly manufacture the DFSNS package within India.
- **Statement 2 is correct:** Its core localization layout uses the SIGMA 30N ring laser gyroscope inertial unit, allowing artillery batteries to orient and compute fire solutions without needing satellite GPS input.
- **Statement 3 is correct:** The targeting engine utilizes the CM3-MR sight, which gives heavy artillery and air defense assets the direct thermal and optical visibility required to track and down small targets, such as low-flying drones.

4. Which of the following statements regarding the features of Solid Fuel Ducted Ramjet (SFDR) technology are correct?

1. It is an advanced air-breathing missile propulsion technology successfully flight-demonstrated by the DRDO.
2. The propulsion architecture entirely eliminates the need to carry solid fuel inside the missile body.
3. It uses atmospheric oxygen during flight for fuel combustion, which reduces the missile's payload weight footprint.
4. The system includes a solid-fuel booster to accelerate the missile to supersonic speeds during its initial phase.

Select the correct answer using the code given below:

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

Correct Answer: (c)

Detailed Explanation:

- **Statement 1 is correct:** SFDR is a key breakthrough developed by the DRDO to enable India to build long-range, high-speed air-to-air missile systems.
- **Statement 2 is incorrect:** SFDR does carry solid fuel; it eliminates the need to carry a heavy *oxidizer* by pulling in oxygen directly from the surrounding atmosphere.
- **Statement 3 is correct:** By capturing atmospheric oxygen through specialized intake ducts, it reduces the size and weight of the propulsion section, allowing more space for an effective warhead.
- **Statement 4 is correct:** Because ramjets cannot generate static thrust from a standstill, the missile requires an integrated nozzle-less solid booster to push it up to the supersonic speeds needed for the ramjet to take over.

5. Consider the following pairs matching Iranian air defense assets with their features:

System	Classification & Functionality
1. Bavar-373	Iran's most advanced long-range system; utilizes the Sayyad-4B missile.
2. Arman System	Medium-range system explicitly designed with 360° radar coverage.
3. Sevom-e-Khordad	Highly mobile anti-cruise system utilizing Sayyad-3 missiles.
4. Tor-M1	Domestically engineered Iranian hypersonic long-range space interceptor.

How many of the above pairs are correctly matched?

- (a) Only one pair
(b) Only two pairs
(c) Only three pairs
(d) All four pairs

Correct Answer: (c)

Detailed Explanation:

- **Pair 1 is correctly matched:** The Bavar-373 is Iran's flagship long-range surface-to-air defense asset. It utilizes the Sayyad-4B missile and claims an interception envelope extending past 300 km.
- **Pair 2 is correctly matched:** The Arman system is a newer medium-range asset engineered with a built-in 360-degree radar configuration to protect against low-altitude ballistic threats.
- **Pair 3 is correctly matched:** The Sevom-e-Khordad is a mobile, quick-reaction air defense launcher that fires Sayyad-3 missiles, deployed to protect sensitive nuclear infrastructure sites such as Natanz and Isfahan.
- **Pair 4 is incorrectly matched:** The Tor-M1 is a Russia-made, short-range defense system acquired by Iran to shoot down incoming guided munitions, precision drones, and cruise missiles. It is not an indigenous Iranian hypersonic space interceptor.

6. Consider the following pairs matching strategic air defense platforms with their operational roles:

Interceptor System	Operational Specialty & Design
1. Arrow 3	Israeli exo-atmospheric system designed to intercept long-range missiles in space.

2. SM-3	US Navy interceptor that uses kinetic impact without an explosive warhead.
3. THAAD	US system designed to intercept targets inside the lower atmosphere.
4. David's Sling	Israeli platform designed to bridge the gap between long and short-range defense.

How many of the above pairs are correctly matched?

- (a) Only one pair
- (b) Only two pairs
- (c) Only three pairs
- (d) All four pairs

Correct Answer: (c)

Detailed Explanation:

- **Pair 1 is correctly matched:** Israel's Arrow 3 is engineered to track and destroy incoming long-range ballistic missiles in space prior to atmospheric re-entry, forming the outermost tier of its layered defense.
- **Pair 2 is correctly matched:** The Aegis-based SM-3 operates as a hit-to-kill naval interceptor, destroying short-to-intermediate range ballistic threats outside the atmosphere using pure kinetic energy.
- **Pair 3 is incorrectly matched:** THAAD (Terminal High Altitude Area Defense) is unique because it is the only US platform engineered to defeat ballistic targets both outside (exo-atmospheric) and inside (endo-atmospheric) the atmosphere during their terminal phase.
- **Pair 4 is correctly matched:** David's Sling (utilizing the Stunner interceptor) handles medium-range ballistic threats, heavy rockets, and cruise missiles, filling the mid-tier defense layer.

7. Which of the following statements regarding the features of conventional gravity bombs are correct?

1. A baseline gravity bomb lacks an internal engine or integrated propulsion system following release.
2. The flight path of an unguided gravity bomb is dictated by aircraft speed, release angle, altitude, and ballistics.
3. The integration of a Joint Direct Attack Munition (JDAM) kit converts an unguided bomb into a precision-guided munition.
4. The JDAM tail kit adds GPS navigation data routes and steerable aerodynamic tail fins to control the bomb's glide path.

Select the correct answer using the code given below:

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

Correct Answer: (d)

Detailed Explanation:

- **Statements 1 and 2 are correct:** Conventional gravity bombs (or "dumb bombs") carry no on-board propulsion machinery. They rely strictly on initial momentum from the carrier aircraft and gravitational pull, requiring computerized release calculations from the cockpit to achieve target hits.

- **Statements 3 and 4 are correct:** When a mechanical JDAM tail assembly kit is attached to a standard gravity bomb, it upgrades the unguided munition into a smart weapon. It introduces a GPS-aided inertial guidance package and steerable tail fins that actively correct the bomb's trajectory mid-air.

8. Consider the following statements with regard to the naval vessel Malwan:

1. It is the second of eight Anti-Submarine Warfare Shallow Water Crafts (ASW SWCs) indigenously designed and built by Cochin Shipyard Limited (CSL).
2. The vessel utilizes a nuclear steam propulsion loop to maximize deep-sea blue-water endurance.
3. The ship's operational profile is strictly limited to helicopter logistics, completely excluding underwater surveillance or mine warfare capabilities.

Select the answer using the code given below:

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

Correct Answer: (c)

Detailed Explanation:

- **Statement 1 is correct:** The *Malwan* is an ASW SWC vessel engineered with over 80% domestic material content by Cochin Shipyard Limited (CSL), Kochi, under the Aatmanirbhar Bharat framework.
- **Statement 2 is incorrect:** It does not use a nuclear propulsion system. It is fitted with an advanced waterjet propulsion configuration to provide the high agility and shallow draft required for coastal littoral combat.
- **Statement 3 is incorrect:** The vessel is built for sub-surface defense. Its multi-role profile includes underwater surveillance, anti-submarine warfare (ASW), coastal defense patrolling, low-intensity maritime operations (LIMO), and mine warfare.

9. Consider the following statements with regard to the INS Aridhaman submarine:

1. It is India's third indigenously built nuclear-powered ballistic missile submarine (SSBN) developed under the Advanced Technology Vessel (ATV) project.
2. The vessel features a specialized 83 MW pressurized water reactor designed by the Bhabha Atomic Research Centre (BARC).
3. The submarine's launch tubes are restricted to carrying short-range torpedoes, making it incapable of launching K-4 ballistic missiles.

Select the answer using the code given below:

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

Correct Answer: (a)

Detailed Explanation:

- **Statement 1 is correct:** INS Aridhaman (designated S4) follows INS Arihant and INS Arighaat as India's third indigenous nuclear-powered SSBN built at the Ship Building Centre (SBC) in Visakhapatnam.
- **Statement 2 is correct:** The propulsion backbone of this 7,000-tonne vessel relies on an indigenous 83 MW pressurized water nuclear reactor engineered by BARC.

- **Statement 3 is incorrect:** The submarine features expanded vertical launch capabilities compared to earlier units, and is built to launch long-range nuclear-tipped missiles, including both the K-15 (750 km range) and the K-4 (3,500 km range) ballistic missiles.

10. Which of the following statements with regard to modern battlefield defense systems is/are correct?

1. The Iron Beam system is an Israeli 100-kilowatt high-energy laser weapon designed to counter drones and short-range threats with near-zero cost per interception.
2. The Cheongung II system deployed by the UAE is an unguided, stationary rocket battery that lacks radar tracking systems.

Select the answer using the code given below:

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2

Correct Answer: (a)

Detailed Explanation:

- **Statement 1 is correct:** Israel's Iron Beam utilizes a 100-kilowatt high-energy laser beam to engage drones, mortar rounds, and small rocket threats. Because it relies on electric power rather than physical missiles, it provides a virtually unlimited magazine at a minimal cost per shot.
- **Statement 2 is incorrect:** The South Korean Cheongung II is a highly advanced surface-to-air missile defense system that provides full 360-degree radar tracking and engagement coverage.

Defense and Security News-II

1. Which of the following statements with regard to India's intelligence-sharing mechanism, the Multi Agency Centre (MAC), is/are correct?

1. It functions under the administrative control of the National Security Council Secretariat under the PMO.
2. It was established in 2001 as part of structural security reforms recommended following the Kargil conflict.

Select the answer using the code given below:

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2

Answer: (b)

Explanation:

- **Statement 1 is incorrect:** The Multi Agency Centre (MAC) functions under the Intelligence Bureau (IB) within the Ministry of Home Affairs (MHA), not under the NSCS or PMO. It serves as India's premier intelligence fusion hub, coordinating central and state security entities.
- **Statement 2 is correct:** The platform was originally conceived and established in 2001 based on the recommendations of the Group of Ministers set up after the Kargil conflict. Its framework was subsequently upgraded and strengthened heavily following the 2008 Mumbai terror attacks to enable seamless, real-time secure communication and data-sharing.

2. Consider the following statements regarding the Central Armed Police Forces (CAPFs) in India:

1. The Supreme Court has legally classified CAPF Group A officers as an Organised Service, granting them parity benefits such as Non-Functional Financial Upgradation (NFFU).
2. All seven major CAPFs, including the Assam Rifles, operate entirely under the executive control of the Ministry of Home Affairs.
3. Under Constitution, CAPFs are classified as “other armed forces of the Union” under the Union List of the Seventh Schedule.

Select the answer using the code given below:

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

Answer: (c)

Explanation:

- **Statement 1 is correct:** The landmark Supreme Court ruling formally recognized CAPFs as Organised Group A Central Services, paving the way for financial upgrades (NFFU), structured career progressions, and a progressive reduction of IPS depulations at top command echelons.
- **Statement 2 is incorrect:** Out of the seven forces, the Assam Rifles (AR) features a unique dual control framework. While its administrative control lies with the Ministry of Home Affairs (MHA), its operational control is handled by the Ministry of Defence (MoD). The remaining six forces operate strictly under the MHA.
- **Statement 3 is correct:** CAPFs are placed under Entry 2 of the Union List (List I) as part of the armed forces of the Union. Their deployment across states is structurally tethered to Article 355 obligations of the Constitution.

3. With reference to the Fugitive Economic Offenders (FEO) Act, 2018, consider the following statements:

1. An individual can be designated as an FEO only if an Indian court has issued an arrest warrant for a scheduled offence of Rs 100 crore.
2. The Enforcement Directorate (ED) is the apex statutory investigation agency empowered to file applications before a Special Court to declare an individual an FEO.
3. Upon a formal declaration as an FEO, the Special Court is legally empowered to confiscate any properties of the offender, located both within India and abroad.

Select the answer using the code given below:

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

Answer: (d)

Explanation:

- **Statement 1 is correct:** The legal floor limit to trigger proceedings under the FEO Act, 2018 is strictly fixed at **Rs 100 crore or more**, coupled with the condition that the individual has fled the sovereign borders of India and explicitly refuses to return for criminal prosecution.
- **Statement 2 is correct:** The Enforcement Directorate (ED) acts as the primary agency to gather intelligence, list out the suspected proceeds of crime, track the individual's locations, and move the formal declaration application before the designated PMLA Special Court.

- **Statement 3 is correct:** A major feature of the Act is that declaration permits immediate attachment and absolute confiscation of properties, including non-tainted personal properties and those located in foreign jurisdictions.

4. Which of the following statements with regard to the newly commissioned naval vessel, INS Mahe, is/are correct?

1. It is the largest Indian warship to feature advanced diesel engine–waterjet propulsion systems.
2. It was indigenously designed and manufactured by Mazagon Dock Shipbuilders Limited (MDL).

Select the answer using the code given below:

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2

Answer: (a)

Explanation:

- **Statement 1 is correct:** INS Mahe is a pioneering platform under the Anti-Submarine Warfare Shallow Water Craft (ASW-SWC) project. It holds the operational distinction of being the largest Indian surface combatant powered by an indigenous diesel engine–waterjet propulsion configuration tailored for high-speed littoral maneuvers.
- **Statement 2 is incorrect:** The warship was designed, engineered, and manufactured by Cochin Shipyard Limited (CSL), not Mazagon Dock Shipbuilders Limited (MDL).

5. Consider the following statements regarding the newly developed Man-Portable Autonomous Underwater Vehicles (MP-AUVs):

1. They are lightweight robotic systems engineered to be manually deployed for mine countermeasure (MCM) operations.
2. The platform is embedded with deep-learning algorithms for automatic and autonomous target classification of Mine-Like Objects (MLOs).
3. The technology has been developed indigenously by the Defence Avionics Research Establishment, Bengaluru.

Select the answer using the code given below:

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

Answer: (a)

Explanation:

- **Statement 1 is correct:** MP-AUVs are man-portable, compact robotic designs built for rapid operational deployment by field personnel. They mitigate dangerous risk profiles during maritime Mine Countermeasure (MCM) actions.
- **Statement 2 is correct:** These systems optimize seabed data using integrated deep-learning algorithms alongside side-scan sonar arrays to classify and flag Mine-Like Objects (MLOs) autonomously in real-time.
- **Statement 3 is incorrect:** The technology was developed by the Naval Science and Technological Laboratory (NSTL) based out of Visakhapatnam, which works under the umbrella of DRDO, rather than DARE Bengaluru (which focuses on airborne electronic warfare).

6. Which of the following statements with regard to the Burevestnik missile is/are correct?

1. It is a nuclear-powered and nuclear-armed ballistic missile capable of executing high-altitude exo-atmospheric strikes.
2. It uses a compact nuclear reactor for propulsion, providing it with an effectively unlimited flight range.

Select the answer using the code given below:

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2

Answer: (b)

Explanation:

- **Statement 1 is incorrect:** The Burevestnik (NATO reporting name: Storm Petrel) is a **cruise missile**, not a ballistic missile. Unlike ballistic trajectories, cruise missiles rely on aerodynamic lift via jet components to remain airborne and fly at exceptionally low altitudes to slip beneath early warning air defence radars.
- **Statement 2 is correct:** By harboring a miniature onboard nuclear reactor core to heat intake air for long-sustained thermal propulsion, the missile theoretically possesses unlimited range, allowing it to navigate around entire continents for days before hitting its designated target area.

7. Consider the following statements regarding the proposed Bureau of Port Security (BoPS):

1. It is envisioned as a statutory body to be constituted under the administrative domain of the Ministry of Ports, Shipping and Waterways (MoPSW).
2. The architectural model of the bureau is structurally patterned on the operational lines of the Bureau of Civil Aviation Security (BCAS).

Select the answer using the code given below:

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2

Answer: (c)

Explanation:

- **Statement 1 is correct:** The Bureau of Port Security (BoPS) will be set up as a formal statutory body under Section 13 of the Merchant Shipping Act. It will function directly under the executive purview of the Ministry of Ports, Shipping and Waterways (MoPSW) to enforce uniform, risk-mitigated maritime infrastructure protocols.
- **Statement 2 is correct:** The conceptual framework, security audit patterns, and operational mandates of BoPS are directly mirrored after the aviation security watchdog the Bureau of Civil Aviation Security (BCAS) with an IPS officer at its apex heading the organization.

8. Consider the following statements regarding the National Intelligence Grid (NATGRID) and the National Population Register (NPR):

1. NATGRID is an attached office under the MeitY.
2. The databases under NATGRID are completely exempt from the disclosure mandates of the RTI Act, 2005.
3. The NPR is an identities database compiled strictly under the statutory provisions of the Registration of Births and Deaths Act, 1969.

4. Registration of demographic details within the NPR framework is legally compulsory for every usual resident of India.

Select the answer using the code given below:

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

Answer: (b)

Explanation:

- **Statement 1 is incorrect:** NATGRID is an attached office operating under the Ministry of Home Affairs (MHA), not MeitY. It is designed to act as a secure core data integration tool to pull down information silos across core enforcement entities.
- **Statement 2 is correct:** NATGRID is explicitly categorized under Section 24 of the **RTI Act, 2005** alongside intelligence and security organizations, shielding its contents from transparency requests except for instances concerning human rights violations or corruption.
- **Statement 3 is incorrect:** The NPR is established and maintained under the explicit legal powers of the Citizenship Act, 1955 and the Citizenship (Registration of Citizens and Issue of National Identity Cards) Rules, 2003, not the Registration of Births and Deaths Act.
- **Statement 4 is correct:** Under the Citizenship Rules, it is statutorily mandatory for every "usual resident" (defined as a individual living or intending to live in a given locality for a rolling period of six months or more) to register within the NPR.

9. Consider the matching pairs between Defense System/Platform and their corresponding Key Features/Developer:

System / Platform	Key Feature and Developer
1. Integrated Air Command and Control System (IACCS)	Integrates ground, airborne, and civilian radars to map a total battlefield picture; developed by Bharat Electronics Limited.
2. Mission Control Centre (MCC) - BMD Network	Interfaces with upgraded long-range tracking radars (Swordfish) to track threats; collaborative development involving DRDO, IAF, and Israel.
3. Akashteer	Provides automated, low-level airspace defense control for ground-based elements; developed by the Indian Navy.
4. TRIGUN	Real-time maritime threat monitoring network integrating sea-based radars and sonar networks; developed indigenously by the Indian Navy.

How many of the pairs given above are correctly matched?

- (a) Only one pair
(b) Only two pairs
(c) Only three pairs
(d) All four pairs

Answer: (c)

Explanation:

- **Pair 1 is correctly matched:** The IACCS serves as the spine of IAF's network-centric warfare capabilities, stitching distinct sensor inputs across civilian and military sectors together via BEL.
- **Pair 2 is correctly matched:** The MCC is the central node of India's Ballistic Missile Defence system. It tracks exo and endo-atmospheric objects using the upgraded Swordfish tracking radars (with an enhanced tracking signature range of up to 1,500 km), backed by joint software components from DRDO, the IAF, and Israel.
- **Pair 3 is incorrectly matched:** While the system's operational scope (low-level airspace automated coordination) is correct, Akashteer was developed by Bharat Electronics Limited (BEL) for the Indian Army.
- **Pair 4 is correctly matched:** TRIGUN is a dedicated situational domain-awareness platform engineered indigenously by the Indian Navy to process raw multi-sensor ocean data.

10. Consider the matching pairs between Air Defense Systems and their corresponding operational profiles/origins:

System / Platform	Key Feature and Developer / Origin
1. D4 System	Drone mitigation system using a dual-layer kill mechanism (Laser Hard Kill and RF/GPS Jamming Soft Kill); developed by DRDO and produced by BEL.
2. L/70 Anti-Aircraft Gun	40 mm radar-guided tactical autocannon with auto-tracking systems; originally designed by Bofors (Sweden) and manufactured in India.
3. ZU-23 mm Gun	Twin-barreled tactical anti-aircraft autocannon designed for static and mobile defensive deployments; developed by Russia.
4. Shilka (ZSU-23-4)	Self-propelled, radar-guided anti-aircraft system equipped with a 360-degree coverage 3rd-generation electro-optical tracking system; originated from Russia.

How many of the pairs given above are correctly matched?

- (a) Only one pair
(b) Only two pairs
(c) Only three pairs
(d) All four pairs

Answer: (c)

Explanation:

- **Pair 1 is correctly matched:** The Drone Detect, Deter, and Destroy (D4) system is India's premier multi-tier drone countermeasure package utilizing laser directed-energy for mechanical destruction and frequency jamming for disruption.
- **Pair 2 is correctly matched:** The vintage but heavily upgraded L/70 air defense gun utilizes integrated electro-optical fire control tracking radars and fires up to 240–330 rounds per minute, stemming from Sweden's Bofors legacy.
- **Pair 3 is incorrectly matched:** The ZU-23-2 twin-barrel autocannon was designed and widely fielded by the **Soviet Union**, not modern Russia. (Note: While Russia inherited the tech, historical and specific military production datasets trace its origin explicitly to the Soviet Union epoch).

- **Pair 4 is correctly matched:** The ZSU-23-4 Shilka is a highly mobile, radar-guided tracked anti-aircraft asset upgraded with phased-array tracking tools, originating out of Russia/Soviet lineage to insulate mobile field armor units from low-flying ground attack aircraft.

Defense and Security News-III

1. Consider the following structural and operational capabilities:

1. Performing long-range supercruise maneuvers without the use of afterburners.
2. Storing heavy operational payloads inside a dedicated internal weapons bay to minimize radar cross-section.
3. Conducting vertical take-off and landing operations directly from small naval offshore patrol vessels.

At the present level of design specifications, which of the above capabilities are intended to be successfully carried out by India's indigenously developed Advanced Medium Combat Aircraft (AMCA)?

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

Answer: (a)

Explanation:

- **Statement 1 is correct:** The AMCA is designed with supercruise capability, which allows the fifth-generation fighter jet to maintain sustained supersonic speeds (approx. Mach 2.15 maximum) without engaging fuel-heavy afterburners.
- **Statement 2 is correct:** To maintain a low radar cross-section (stealth feature), the AMCA features an internal weapons bay capable of carrying 1,500 kg of payload out of its total weapon capacity.
- **Statement 3 is incorrect:** The AMCA is a conventional twin-engine medium-weight fighter jet designed for conventional airfields and regular aircraft carriers. It does not possess Vertical Take-Off and Landing (VTOL) capabilities, which are restricted to specialized aircraft like the F-35B or Harrier jets.

2. Consider the following operational tracking and engagement scenarios:

1. Executing low-altitude sea-skimming flight paths at 3 to 10 meters above the surface to evade naval radar tracking.
2. Delivering precise hypersonic strikes against targets at speeds continuously exceeding Mach 7.
3. Launching precision tactical strikes from underwater submarine platforms.

In how many of the above operational scenarios can the existing operational variants of the BrahMos cruise missile be successfully used?

- (a) Only one
- (b) Only two
- (c) All three
- (d) None

Answer: (b)

Detailed Explanation:

- **Scenario 1 is correct:** The BrahMos supersonic cruise missile utilizes an advanced low-altitude flight profile, skimming as low as 3–10 meters above sea level to remain beneath the detection horizon of enemy warship radars.

- **Scenario 2 is incorrect:** The current operational versions of BrahMos are supersonic cruise missiles operating at speeds around Mach 3. Hypersonic flight (exceeding Mach 5–7) is a feature intended for the future *BrahMos-II* variant, which is still in the design and development phase, not current operational variants.
- **Scenario 3 is correct:** BrahMos is a highly versatile multi-platform missile that is actively configured to be launched from land-based mobile launchers, surface warships, fighter aircraft (Su-30MKI), and underwater submarines.

3. Consider the following statements:

1. The Golden Dome is a space- and ground-based multi-layered missile defense initiative by the U.S to counter hypersonic and cruise missile threats.
2. Unlike the THAAD system which targets endo-atmospheric threats, the Golden Dome relies on low-altitude tactical man-portable air defense units.

Which of the statements given above is/are correct?

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2

Answer: (a)

Explanation:

- **Statement 1 is correct:** The Golden Dome is a strategic initiative announced by the US administration to integrate existing and new layered defenses (including space-based tracking sensors and interceptors) to safeguard against modern hypersonic and cruise missile vectors.
- **Statement 2 is incorrect:** The Golden Dome does not rely on short-range man-portable systems. Instead, it architecture-links heavy national-tier defense installations, directly leveraging high-altitude assets like THAAD, Patriot missile batteries, Aegis Ballistic Missile Defense, and Ground-based Midcourse Defense (GMD).

4. Consider the following statements:

1. Bhargavastra is an indigenously developed counter-unmanned aerial system (C-UAS) designed primarily as a low-cost "hard kill" solution against drone swarms.
2. It features a single-tier defense architecture consisting of soft-kill electronic jamming and GPS spoofing arrays.

Which of the statements given above is/are correct?

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2

Answer: (a)

Explanation:

- **Statement 1 is correct:** Bhargavastra is an indigenous micro-missile/micro-rocket anti-drone system designed to act as a hard-kill solution capable of neutralising target drone swarms with a 20-meter lethal blast radius.
- **Statement 2 is incorrect:** Bhargavastra is built on a two-layer hardware system: unguided micro-rockets for mass swarms and guided micro-missiles for precision tracking. While its modular design

can integrate soft-kill measures (jamming/spoofing), its core architecture is distinctly dual-tiered and hard-kill oriented.

5. Which one of the following statements best describes the Multi-Influence Ground Mine (MIGM) tested by the Indian Navy?

- (a) It is a deep-sea autonomous recovery vehicle used to locate black boxes of downed aircraft.
- (b) It is an indigenous underwater naval mine equipped with multi-sensor arrays to detect acoustic, magnetic, and pressure signatures of stealth ships and submarines.
- (c) It is a submarine-launched nuclear torpedo designed for high-speed coastal defense.
- (d) It is a floating harbor defense barrier used to shield naval dockyards from underwater divers.

Answer: (b)

Explanation:

- **Option (b) is correct:** Developed by the Naval Science and Technological Laboratory (NSTL) under DRDO, the MIGM is a sophisticated underwater naval mine. It works passively on the seabed (ground mine) and uses integrated processors to analyze combined acoustic, magnetic, and pressure signatures of passing surface stealth ships or submarines before detonating.

6. Which one of the following statements best describes the HawkEye 360 technology approved for sale to India?

- (a) It is a low-frequency ground penetrating radar network used to map tunnel networks along mountainous borders.
- (b) It is a carrier-borne early warning drone optimized for high-altitude thermal imaging.
- (c) It is a satellite constellation system in Low Earth Orbit that detects, geolocates, and analyzes commercial and military radio frequency (RF) signals.
- (d) It is an encryption protocol used to safeguard secure tactical data links across quad-nation groupings.

Answer: (c)

Explanation:

- **Option (c) is correct:** HawkEye 360 uses clusters of three cluster-linked satellites operating in Low Earth Orbit (LEO) to capture, map, and geolocate Radio Frequency (RF) signals from space. For India, its main utility is maritime domain awareness, exposing dark vessels that intentionally switch off their transponders (Automatic Identification Systems) to illegally fish or smuggle.

7. Which one of the following statements best describes the Igla-S system procured by the Indian Army?

- (a) It is an indigenous anti-tank guided missile system featuring tandem warheads.
- (b) It is a Russian-origin man-portable, shoulder-launched very short-range surface-to-air missile system utilizing infrared homing guidance.
- (c) It is an autonomous tracked combat vehicle designed to clear minefields ahead of armored columns.
- (d) It is a heavy towed artillery system optimized for high-altitude cold-weather combat operations.

Answer: (b)

Detailed Explanation:

- **Option (b) is correct:** The Igla-S is a MANPADS (Man-Portable Air Defence System) of Russian origin. It is a shoulder-fired, short-range surface-to-air missile system utilizing infrared homing (heat-seeking) logic to intercept low-flying assets like drones, helicopters, and cruise missiles up to a range of 6 km.

8. Consider the following statements regarding the Pralay missile:

1. It is powered by liquid-fuel propulsion engines, restricting its launch capabilities exclusively to fixed silos.
2. It is an indigenously developed, solid-propellant quasi-ballistic missile with an operational strike range of 150 to 500 km.

Which of the statements given above is/are correct?

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2

Answer: (b)

Detailed Explanation:

- **Statement 1 is incorrect:** The Pralay missile is powered by a solid-propellant rocket motor. Solid-fuel design allows it to be stored ready-to-fire and launched dynamically from road-mobile launchers, ensuring high operational flexibility.
- **Statement 2 is correct:** Pralay is a short-range, surface-to-surface quasi-ballistic missile developed by DRDO. It has a targeting range of 150–500 km and can alter its trajectory mid-flight to evade defensive interceptor systems.

9. Consider the following statements:

1. INS Nistar and INS Nipun are indigenously designed and built Diving Support Vessels (DSVs) engineered for deep-sea salvage and submarine rescue operations.
2. Both vessels operate as mother ships for Deep Submergence Rescue Vehicles (DSRVs) and can execute diving operations up to depths of 3,000 meters.

Which of the statements given above is/are correct?

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2

Answer: (a)

Detailed Explanation:

- **Statement 1 is correct:** INS Nistar and INS Nipun are twin Diving Support Vessels (DSVs) manufactured by Hindustan Shipyard Limited (HSL). They provide subsea support, search and rescue, and deep-sea diving capabilities.
- **Statement 2 is incorrect:** While they function as specialized mother ships for Deep Submergence Rescue Vehicles (DSRVs), their structural diving and salvage operations extend up to operational depths of 300 meters, not 3,000 meters.

10. In the context of Indian defense infrastructure, consider the following statements:

1. The operational strike range of the base Astra Mk-1 missile variant exceeds 500 km
2. The Astra Mk-1 is an indigenously developed Beyond Visual Range Air-to-Air Missile (BVRAAM) equipped with an indigenous Radio Frequency (RF) seeker.

Which of the statements given above is/are correct?

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2

Answer: (b)

Detailed Explanation:

- **Statement 1 is incorrect:** The base variant, Astra Mk-1, features an effective operational strike range of 80 to 110 km, not 500 km. Extended range versions under testing like Astra Mk-2 possess a range profile of 130–160 km.
- **Statement 2 is correct:** Astra is India's first indigenous Beyond Visual Range Air-to-Air Missile (BVRAAM). Recent upgrades successfully integrated an indigenous Radio Frequency (RF) seeker to track and lock onto electronic signatures of supersonic enemy aircraft.

Defense and Security News-IV

Q. With reference to Mission Sudarshan Chakra, consider the following statements:

1. It is designed exclusively as a low-altitude surface-to-air missile defence system for protecting military installations.
2. The mission emphasizes indigenous development and manufacturing of defence systems.
3. It incorporates cyber-security measures to safeguard critical defence networks.
4. The mission envisages phased modernization of India's defence capabilities by 2035.

Which of the statements given above are correct?

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

Answer: (b)

Explanation

- **Statement 1 is incorrect:** Mission Sudarshan Chakra is envisaged as a comprehensive, multi-layered national defence framework integrating air defence, cyber security, surveillance, and critical infrastructure protection. It is not limited exclusively to a low-altitude surface-to-air missile defence role.
- **Statement 2 is correct:** The mission places strong emphasis on indigenous research, development, and manufacturing in line with the Aatmanirbhar Bharat initiative.
- **Statement 3 is correct:** The framework includes cyber-security measures to protect critical defence networks from threats such as hacking, phishing, and other cyber-attacks.
- **Statement 4 is correct:** The mission envisages phased modernization and expansion of India's defence capabilities, with implementation targets extending up to 2035.

2. What is the common characteristic or objective of the projects/systems known as Project Kusha, Project Akashteer, and Project Anant Shastra often discussed in the media?

- (a) These are deep-sea mining exploration initiatives under the Ministry of Earth Sciences.
- (b) These are components of India's evolving multi-layered air defense and airspace monitoring architecture.
- (c) These are high-altitude satellite launch vehicles developed by ISRO for military communication.
- (d) These are electronic warfare packages designed for encryption of naval carrier communications.

Answer: (b)

Explanation:

- **Option (b) is correct:** Project Kusha is an Indian Air Force program to build an indigenous long-range surface-to-air missile system (LR-SAM). Combined with tactical automated networks like Akashteer (Army airspace control) and Anant Shastra (QRSAM), they all form part of India's integrated, network-centric, multi-layered air defense architecture.

3. With reference to components of India's Integrated Air Defence Weapon System (IADWS), consider the following pairs:

Component System	Core Operational Profile / Description
I. Quick Reaction SAM (QRSAM)	Designed to protect moving armored formations from low-altitude attacks
II. Advanced VSHORADS	A Man-Portable Air Defence System (MANPADS) with an operational range of up to ~6 km
III. Directed Energy Weapon (DEW)	Uses concentrated laser beams to destroy targets at the speed of light

How many of the pairs given above are correctly matched?

- (a) Only one
- (b) Only two
- (c) All the three
- (d) None

Answer: (c)

Detailed Explanation:

- **Pair I is correctly matched:** QRSAM (developed by DRDO/DRDL) is engineered to provide air defense on the move, maintaining a range of 25–30 km to shield mobile armored columns.
- **Pair II is correctly matched:** The Advanced VSHORADS (developed by Research Centre Imarat) is a short-range MANPADS system designed to lock onto and eliminate low-altitude threats at distances up to ~6 km.
- **Pair III is correctly matched:** Directed Energy Weapons (developed by CHES) represent the newest technology layer, using focused laser systems to slice structures or trigger target warheads instantaneously.

4. With reference to the recently tested Agni-Prime (Agni-P) missile system, which of the following statements is/are correct?

1. It is a surface-to-surface ballistic missile representing the sixth entry in the Agni series.
2. It relies on an uncanisterized liquid-propellant engine system to achieve maximum mobility.
3. Its successful deployment from rail-based mobile platforms enhances India's credible second-strike capability under its No First Use nuclear doctrine.

Select the correct answer using the code given below:

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

Answer: (c)

Detailed Explanation:

- **Statement 1 is correct:** Agni-Prime is the sixth generation of the Agni ballistic missile series, functioning as a surface-to-surface technological upgrade to the legacy Agni-I systems.
- **Statement 2 is incorrect:** Agni-P features an advanced, lightweight solid-propellant engine configuration and utilizes a modern canisterized setup. Canisterization encloses the missile in a hermetic chamber, allowing long-term storage and rapid deployment.
- **Statement 3 is correct:** Rail-based launchers leverage India's massive rail footprint for natural concealment and movement. This high mobility forms the backbone of a robust second-strike nuclear capability, which is necessary for India's "No First Use" security policy.

5. With reference to the newly integrated X-Guard Fibre-Optic Towed Decoy (FOTD) electronic warfare systems, consider the following statements:

1. All types of combat aircraft can deploy the X-Guard FOTD software adaptation.
2. The X-Guard system acts as a trailing, expendable electronic shield that mimics the hosting jet's radar cross-section and speed.
3. It relies on passive infrared heat-suppression flares without emitting any multi-band radio jamming signals.

How many of the statements given above are correct?

- (a) Only one
- (b) Only two
- (c) All the three
- (d) None

Answer: (a)

Detailed Explanation:

- **Statement 1 is incorrect:** The X-Guard FOTD is a specialized asset designed by Rafael Advanced Defence Systems to integrate into the Rafale fighter jet's proprietary SPECTRA electronic warfare architecture. It is not a universal, plug-and-play unit for all types of aircraft.
- **Statement 2 is correct:** The AI-enabled decoy is deployed mid-flight behind the jet, physically trailing it while mimicking its speed, radar cross-section, and signature to draw incoming radar-guided missiles away from the aircraft.
- **Statement 3 is incorrect:** X-Guard does not rely purely on passive heat flares. It functions as an active electronic warfare node, transmitting jamming signals across multiple radar bands to confuse and disrupt enemy tracking networks.

6. Consider the following air-launched weapon systems:

1. Extended Range Attack Munitions (ERAMS)
2. SCALP EG
3. Storm Shadow

How many of the above are classified as 5th-Generation stealth fighter aircraft?

- (a) Only one
- (b) Only two
- (c) All three
- (d) None

Answer: (d)

Detailed Explanation:

- **Option (d) is correct:** None of the listed entries are aircraft. They are all air-launched precision-guided cruise missiles or standoff munitions. ERAMs (developed by the US Air Force) combine the power of a heavy ordnance bomb with the long standoff range (240–450 km) of a cruise missile to engage fixed or mobile targets without putting the launch aircraft within range of enemy air defenses.

7. Consider the following statements:

1. Poseidon is an autonomous, nuclear-powered and nuclear-capable unmanned underwater vehicle (UUV) designed by Russia that can function similarly to a long-range torpedo.
2. Unlike air-launched cruise missiles that travel at high altitudes, Poseidon can navigate at oceanic depths exceeding 1 km at speeds of roughly 200 km/h.

Which of the statements given above is/are correct?

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2

Answer: (c)

Detailed Explanation:

- **Statement 1 is correct:** Poseidon (NATO designation: Kanyon) is a nuclear-propelled, nuclear-armed unmanned underwater drone designed to carry massive payloads (up to two megatons), operating essentially as an underwater intercontinental drone-torpedo.
- **Statement 2 is correct:** Due to its onboard mini nuclear reactor propulsion, it achieves unique performance parameters for an underwater weapon system: navigating at extreme depths (greater than 1 km) and high underwater speeds (~200 km/h), making it difficult to detect or intercept with standard acoustic defense measures.

8. Consider the following military and airspace management operations:

1. Generating automated, predictive drone threat assessments using machine learning models.
2. Interfacing directly with field air defense systems like the Akashteer platform to map friendly, neutral, and hostile aircraft in real-time.
3. Directing coordinated kinetic hard-kill and electronic soft-kill defensive assets simultaneously during a multi-directional drone swarm attack.

In how many of the above operational activities is the functional management of the Saksham Counter-Unmanned Aerial System (CUAS) Grid required?

- (a) Only one
- (b) Only two
- (c) All three
- (d) None

Answer: (c)

Detailed Explanation:

- **Scenario 1 is required:** The Saksham Grid (developed alongside BEL) uses AI algorithms to parse data streams for automated, real-time threat detection and tracking.
- **Scenario 2 is required:** Interoperability is a primary feature of Saksham. It integrates with existing tactical frameworks like the Indian Army's Akashteer System to maintain shared situational awareness of airspace users.

- **Scenario 3 is required:** Saksham stands for *Situational Awareness for Kinetic Soft and Hard Kill Assets Management*. Its core design acts as a decision-support command hub to manage hard-kill vectors (missiles/guns) and soft-kill measures (jamming) during swarm attacks.

9. Consider the following statements:

1. INS Androth is an indigenous aircraft carrier designed for long-range oceanic carrier battle group control.
2. INS Himgiri is a diesel-propelled submarine engineered exclusively for shallow-water littoral acoustic monitoring.

Which of the statements given above is/are correct?

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2

Answer: (d)

Detailed Explanation:

- **Statement 1 is incorrect:** INS Androth is an Anti-Submarine Warfare Shallow Water Craft (ASW-SWC) vessel, not an aircraft carrier. It was built by GRSE with high domestic sourcing for coastal defense, maritime surveillance, and low-intensity maritime operations.
- **Statement 2 is incorrect:** INS Himgiri is an Advanced Guided Missile Frigate (Project 17A), armed with Barak-8 and BrahMos missile suites. It is a large surface combatant vessel (6,670-tonne displacement) powered by a Combined Diesel or Gas (CODOG) system, not a submarine.

10. Consider the following statements:

1. The Anant Shastra air defense system is a fully mobile, quick-reaction surface-to-air missile (SAM) network designed to track and engage multiple targets on the move.
2. It has an effective tactical operational range of up to 300 km with a target altitude engagement envelope of up to 50 km.

Which of the statements given above is/are correct?

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2

Answer: (a)

Detailed Explanation:

- **Statement 1 is correct:** Formerly known as the Quick Reaction Surface-to-Air Missile (QRSAM) system, Anant Shastra is a highly mobile air defense asset developed by DRDO, BEL, and BDL. It is being inducted to replace the Soviet-era OSA-AK systems to safeguard ground formations on the move.
- **Statement 2 is incorrect:** The tactical specifications of the system match short-to-medium quick-reaction criteria: its operational engagement range extends up to 30 km (not 300 km), and its vertical altitude capability covers up to 10 km (not 50 km).

Defense and Security News-V

1. Consider the following defensive and security activities:

1. Detection of low-altitude electronic signatures and categorization of hostile airborne targets.

2. Deployment of AI-powered autonomous interceptor swarms equipped with defensive munitions along geographical flanks.
3. Establishing static, continuous structural barriers to physically block the ground entry of undocumented motorized vehicles.

In how many of the above activities can the technology and network framework of the European Drone Wall (Eirshield) initiative be used?

- (a) Only one
- (b) Only two
- (c) All three
- (d) None

Answer: (b)

Detailed Explanation:

- **Statement 1 is correct:** The Drone Wall integrates multi-layered tracking setups—including micro-Doppler radar, cameras, and radio frequency detectors—to dynamically identify and categorize unauthorized, low-altitude aerial threats.
- **Statement 2 is correct:** The architecture relies on active kinetic defense layers, deploying interceptor platforms and planning for future AI-driven autonomous drone swarms to physically disable hostile drones.
- **Statement 3 is incorrect:** The Drone Wall is not a physical barrier or ground wall. It is a virtual, coordinated electronic and kinetic multi-layered security grid spanning airspace boundaries.

2. Consider the following statements:

1. The MH-60R Seahawk is a multi-mission maritime helicopter primarily designed to execute anti-submarine and anti-surface warfare operations.
2. Developed by Sikorsky, the helicopter platform relies on dipping sonar, sonobuoys, and advanced multi-mode radar arrays to track subsurface profiles.

Which of the statements given above is/are correct?

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2

Answer: (c)

Detailed Explanation:

- **Statement 1 is correct:** The MH-60R Seahawk serves as an advanced multi-mission naval helicopter platform specialized in tracking, targeting, and neutralizing surface vessels and deep-water submarines.
- **Statement 2 is correct:** It is engineered by Sikorsky (Lockheed Martin) and features a comprehensive sensor suite including acoustic dipping sonar, deployable sonobuoys, multi-mode radar, and infrared targeting arrays to secure real-time data links.

3. With reference to the indigenously developed naval vessel Anjadi', which of the following statements is/are correct?

1. It is designed as an Anti-Submarine Warfare Shallow Water Craft (ASW SWC).
2. It is powered by a high-efficiency waterjet propulsion system.
3. It has an import-dependent weapon module utilizing non-indigenous 30 mm automated artillery guns.

Select the correct answer using the code given below:

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

Answer: (b)

Detailed Explanation:

- **Statement 1 is correct:** Anjadip is the third of eight planned Anti-Submarine Warfare Shallow Water Crafts designed for littoral warfare and near-shore surveillance operations.
- **Statement 2 is correct:** At 77 meters in length, these ASW SWCs stand as the largest class of Indian naval warships utilizing waterjet propulsion for rapid maneuvering.
- **Statement 3 is incorrect:** The vessel is built with over 80% indigenous component architecture and is specifically fitted with an indigenous 30 mm Naval Surface Gun, rather than an import-dependent module.

4. Which of the following statements with regard to the global circumnavigation voyage Navika Sagar Parikrama II is/are correct?

1. It was completed as a historic double-handed voyage aboard the sailing vessel INSV Tarini by two women officers of the Indian Navy.
2. The entire continuous transit across multiple oceans was achieved using auxiliary fossil-fuel motorized propulsion engines without relying on sails.

Select the answer using the code given below:

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2

Answer: (a)

Detailed Explanation:

- **Statement 1 is correct:** Lieutenant Commanders Roopa A. and Dilna K. completed the historic voyage as India's first double-handed circumnavigators, operating with a two-person crew.
- **Statement 2 is incorrect:** The journey was completed entirely under sail, without external assistance or reliance on fossil-fuel propulsion engines, navigating across three major oceans and the three Great Capes.

5. Which of the following statements with regard to the Financial Fraud Risk Indicator (FRI) is/are correct?

1. It is a risk-based metric introduced by the Department of Telecommunications to combat mobile-based cyber fraud.
2. It aggregates data feeds from international global intelligence units without referencing domestic data portals.
3. The indicator enables commercial banking systems and UPI providers to isolate and apply extra monitoring to numbers tagged with higher risk levels.

Select the answer using the code given below:

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

Answer: (b)

Detailed Explanation:

- **Statement 1 is correct:** The FRI was created by the DoT as a security tier to categorize cellular connections based on their statistical probability of deploying cyber financial fraud.
- **Statement 2 is incorrect:** The FRI draws directly from domestic tracking databases, including the National Cybercrime Reporting Portal (NCRP), the DoT's Chakshu facility, and the Digital Intelligence Platform (DIP), along with data from local banks.
- **Statement 3 is correct:** The risk categorizations (Medium, High, Very High) allow digital payment interfaces, UPI providers, and NBFCs to step up monitoring and freeze vulnerable accounts securely.

6. Which of the following statements with regard to the enforcement action Operation Deep Manifest is/are correct?

1. It was launched by the Directorate of Revenue Intelligence (DRI) to halt the illegal import of prohibited goods routed through third countries.
2. It enforces compliance with the absolute policy restrictions on goods originating from or exported by Pakistan.

Select the answer using the code given below:

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2

Answer: (c)

Detailed Explanation:

- **Statement 1 is correct:** The DRI executed Operation Deep Manifest to stop illicit supply chains that bypass trade rules by routing prohibited regional goods through third-party logistics hubs like Dubai, UAE.
- **Statement 2 is correct:** Following a comprehensive trade ban, this targeted security operation is designed to detect and seize illicit cargo entering the country in violation of absolute import restrictions.

7. Consider the following matrix of military exercises:

Exercise	Participating Countries / Entities	Operational Profile / Description
Shakti	India and France	Biennial joint land force military exercise
PASSEX	India and United Kingdom	Maritime passage exercise conducted in the Arabian Sea
Khaan Quest	India and Mongolia	Began as a bilateral exercise, later expanded into a multinational drill

Nomadic Elephant	India and Malaysia	Specialized annual amphibious mountain warfare drill
-------------------------	--------------------	--

How many of the rows given above are correctly matched?

- (a) Only one row
- (b) Only two rows
- (c) Only three rows
- (d) All four rows

Answer: (c)

Detailed Explanation:

- **Row 1 is correctly matched:** Exercise Shakti is a biennial joint military exercise alternating between India and France.
- **Row 2 is correctly matched:** PASSEX is a maritime passage exercise carried out by the Indian Navy alongside the UK Carrier Strike Group in the North Arabian Sea.
- **Row 3 is correctly matched:** Khaan Quest is hosted in Mongolia; it started as a US-Mongolia bilateral event in 2003 before turning into a multinational framework in 2006.
- **Row 4 is incorrectly matched:** Exercise Nomadic Elephant is an annual joint military exercise conducted between India and Mongolia, not Malaysia.

8. Consider the following matrix of strategic military exercises:

Exercise	Participating Countries / Entities	Operational Profile / Description
Bold Kurukshetra	India and Singapore	Conducted as a Table-Top Exercise and Computer-Based Wargame
Bharat NCX	India (Domestic Initiative)	National Cybersecurity Exercise conducted by the NSCS
SIMBEX	India and Sri Lanka	Longest-running maritime drill operating since 1994
Talisman Sabre	Multinational (Australia-led)	Large-scale multilateral exercise with diverse global partners

How many of the rows given above are correctly matched?

- (a) Only one row
- (b) Only two rows
- (c) Only three rows
- (d) All four rows

Answer: (c)

Detailed Explanation:

- **Row 1 is correctly matched:** Bold Kurukshetra features armored and mechanized warfare simulations between the armies of India and Singapore.
- **Row 2 is correctly matched:** Bharat NCX is a domestic exercise led by the National Security Council Secretariat (NSCS) alongside Rashtriya Raksha University (RRU) to test cyber resilience.

- **Row 3 is incorrectly matched:** SIMBEX is the Singapore-India Maritime Bilateral Exercise (originally Exercise Lion King in 1994). It does not involve Sri Lanka.
- **Row 4 is correctly matched:** Exercise Talisman Sabre is Australia's largest multilateral military exercise, bringing together multiple nations including the US, India, and Japan.

9. Consider the following matrix of defense operations:

Exercise	Participating Countries / Entities	Operational Profile / Description
Jaa Mata	India and Japan	Joint sea exercise between Indian Coast Guard and Japanese Coast Guard
Achook Prahar	Indian Army and ITBP	Validation of operational readiness in the border areas of Arunachal Pradesh
SLINEX	India and Sri Lanka	Bilateral naval exercise held in Colombo
Bright Star	Multinational (Hosted by Egypt)	Tri-service multilateral exercise co-partnered with the United States

How many of the rows given above are correctly matched?

- (a) Only one row
(b) Only two rows
(c) Only three rows
(d) All four rows

Answer: (d)

Detailed Explanation:

- **Row 1 is correctly matched:** Exercise Jaa Mata involves close cooperation between the Indian Coast Guard and the Japanese Coast Guard vessel Itsukushima.
- **Row 2 is correctly matched:** Achook Prahar brings together the Spear Corps of the Indian Army and the Indo-Tibetan Border Police (ITBP) under simulated battlefield scenarios in the northeast.
- **Row 3 is correctly matched:** SLINEX is the recurring Sri Lanka-India Naval Exercise focusing on maritime interoperability.
- **Row 4 is correctly matched:** Exercise Bright Star is a biennial multinational tri-service drill hosted by Egypt and the United States, with widespread global participation.

Question 10: Military Exercises (Set 4)

Blueprint: 4 Rows $\times$ 3 Columns matrix matching format using variable counting logic.

Q10. Consider the following matrix of operational tactical exercises:

Exercise	Base Implementing Agency / Force	Core Objective / Framework
Cold Start	Joint Tri-Service Forces	Large-scale evaluation of drones and counter-drone field hardware

Pacific Reach	Multilateral (Hosted by Singapore)	Focused on deep-sea intervention and submarine rescue operations
Siyom Prahar	Indian Air Force	Validation of medium-range strategic transport aircraft drops
NATPOLREX-X	Indian Coast Guard (ICG)	Flagship biennial national marine oil spill response exercise

How many of the rows given above are correctly matched?

- (a) Only one row
- (b) Only two rows
- (c) Only three rows
- (d) All four rows

Answer: (c)

Detailed Explanation:

- **Row 1 is correctly matched:** Cold Start brings together the Army, Navy, Air Force, and R&D partners in Madhya Pradesh to evaluate drone ecosystems.
- **Row 2 is correctly matched:** Pacific Reach features a harbor exchange phase and a sea phase designed to practice submarine escape and rescue tracking.
- **Row 3 is incorrectly matched:** Exercise Siyom Prahar is conducted by the **Indian Army** (not the Air Force) in Arunachal Pradesh to practice integrating small drones into tactical land operations.
- **Row 4 is correctly matched:** NATPOLREX-X is the National Level Pollution Response Exercise run by the ICG to test preparedness against offshore oil spills.