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The Road Map to Mussoorie...



Prelims EDGE – 14/10/2024

ELECTION SYMBOL ALLOTMENT

Context: NCP founder Sharad Pawar has filed a plea in the Supreme Court seeking to restrain the Ajit Pawar faction from using the 'clock' symbol in the upcoming Assembly polls in Maharashtra.




About Election Symbol Allotment:

- The **Election Symbols (Reservation and Allotment) Order, 1968** empowers the Election Commission to recognize political parties and allot symbols.
- They were introduced to facilitate voting by illiterate people, who can't read the name of the party while casting their votes.
- In the 1960s, it was proposed that the regulation, reservation and

allotment of electoral symbols should be done through a law of Parliament, i.e. Symbol Order.

- The Election Commission **registers political parties** for the purpose of elections and grants them **recognition as national or state parties** on the basis of their poll performance. The other parties are simply declared as **registered-unrecognized parties**.
- The recognition determines their right to certain privileges like **allocation of the party symbols, provision of time for political broadcasts** on television and radio stations and **access to electoral rolls**.
- Every national party and every state party is allotted a symbol **exclusively reserved** for its use throughout the country and the states respectively.
- A recognized political party has a reserved symbol that is **not allotted** to any other candidate in any constituency.
- For registered but unrecognized political parties, one of the **free symbols** is allotted as a common symbol during an election if that party contests in two Lok Sabha constituencies or in 5% of seats to the Assembly of a State as the case may be.
- As per the Election Symbols (Reservation and Allotment) (Amendment) Order, 2017, party symbols are either:
 - **Reserved:** Eight national parties and 64 state parties across the country have "reserved" symbols.

- **Free:** The Election Commission also has a pool of nearly 200 “free” symbols that are allotted to the thousands of unrecognised regional parties that pop up before elections.

 As per the Symbols Order, in case of split in a recognized political party, the ECI decides as to which faction or group is the recognized political party. The reserved symbol is allotted to such faction.

The Supreme Court in *Sadiq Ali v. the ECI* laid down the 3-test formula for determining which faction is to be recognized as the original political party. These are: the aims and objectives of the party; its affairs as per the party’s constitution that reflect inner party democracy; majority in the legislative and organization wings.

Source: Who gets the preferred symbol when there are two factions? (The Hindu)

KAVACH

Context: Need for Kavach is being discussed in the context of the train collision near Chennai.

THE HINDU

Safety route

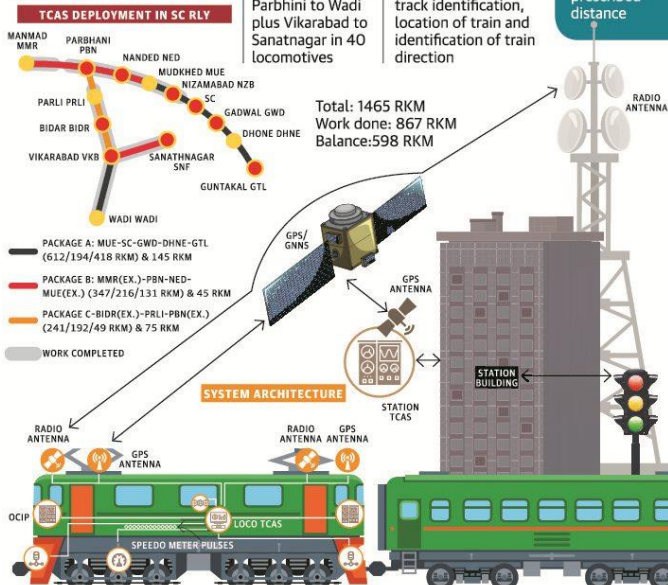
The indigenous Train Collision Avoidance System, also known as Automatic Train Protection system or Kavach, is to help the Railways to achieve the goal of “zero accidents”

Trains will also stop on their own when the digital system notices a manual error like “jumping” of red signal or any other malfunction

The system is in operation from Manmad to Secunderabad and Parbhini to Wadi plus Vikarabad to Sanatnagar in 40 locomotives

RFID tags are provided every 1 km and at station yard for each track and signals for track identification, location of train and identification of train direction

With this, train will come to a halt automatically if another train is on the same line within a prescribed distance



TCAS DEPLOYMENT IN SC & RL

MANMAD MMR, PARBHANI PBN, NANDED NED, MUDKHED MUE, NIZAMABAD NZB, PARLI PRLI, SC, GADWAL GWD, BIDAR BIDR, DHONE DHNE, VIKARABAD VKB, SANATNAGAR SNF, GUNTAKAL GTL, WADI WADI

PACKAGE A: MUE-SC-GWD-DHNE-GTL (612/194/418 RKM) & 145 RKM
 PACKAGE B: MMR(EX.)-PBN-NED-MUE(EX.) (347/216/131 RKM) & 45 RKM
 PACKAGE C: BIDR(EX.)-PRLI-PBN(EX.) (241/192/49 RKM) & 75 RKM

WORK COMPLETED

SYSTEM ARCHITECTURE

GPS/GNSS, RADIO ANTENNA, STATION TCAS, STATION BUILDING, RADIO ANTENNA, GPS ANTENNA, OCP, SPEEDO METER PULSES, LOCO TCAS

Total: 1465 RKM
 Work done: 867 RKM
 Balance: 598 RKM

About Kavach:

- Kavach is an **indigenously developed train control system** with anti-collision features developed by the **Research Design and Standards Organisation (RDSO)** in association with three Indian vendors.
- It has been adopted as our **National Automatic Train Protection (ATP) System**.
- It adheres to **Safety Integrity Level-4 (SIL-4)** standards and acts as a vigilant watchdog over the existing signaling system, alerting the loco pilot when approaching a 'red signal' and applying automatic brakes if necessary to prevent overshooting the signal.
- The system also relays **SoS messages** during emergency situations.
- It features **centralized live monitoring** of train movements through the Network Monitor System.

- The **Indian Railways Institute of Signal Engineering & Telecommunications (IRISET)** in Secunderabad, Telangana hosts the 'Centre of Excellence' for Kavach.

Components of Kavach:

- Within the Kavach setup, designated railway stations along the intended route for deployment consist of **three essential components**:
 - **First Component:** The first component involves the incorporation of **Radio Frequency Identification (RFID)** technology into the tracks.

- RFID employs radio waves to **identify objects or individuals** and utilizes electromagnetic fields to automatically read wireless device information from a distance **without physical contact or line of sight**.
- **Second Component:** The locomotive, serving as the driver's cabin, is equipped with **RFID readers**, a computer, and brake interface equipment, comprising the second component.
- **Third Component:** It encompasses **radio infrastructure**, such as towers and modems, strategically installed at railway stations to support the system's functionality.

Challenges in Deployment:

Its deployment cost is **₹50 lakh per kilometer**, with limited coverage of approximately **1,500 km** currently, posing a challenge in comprehensive implementation across the 68,000 km rail network.

Source: *Take the gauntlet (The Hindu)*

PM GATI SHAKTI

Context: Recently, PM Narendra Modi said that PM Gati Shakti National Master Plan has emerged as a transformative initiative aimed at revolutionizing Indian infrastructure.

About PM Gati Shakti Master Plan:

- It is a **comprehensive infra development plan announced in Nov 2021** to improve economic growth and sustainable dvpt. by focusing on infra such as **roads, railways, airports, ports, mass transport, waterways, and logistics**.
- It is a **National Master Plan for multi-modal connectivity** that aims to incorporate infra schemes of various union govt Ministries such as **Bharatmala, Sagarmala, inland waterways, land ports, UDAN etc.**
- Under it, **100 critical infrastructure gap projects have been prioritized in FY24** for development with an **allocation of Rs. 75,000 crores**.
- It **subsumes the Rs 110 lakh crore National Infrastructure Pipeline** that was launched in 2019.
- Besides **cutting logistics costs**, the scheme is also aimed at **increasing cargo handling capacity** and **reducing the turnaround time at ports** to boost trade.
- It also aims to have **eleven industrial corridors and two defence corridors** - in Tamil Nadu and Uttar Pradesh.
- **Extending 4G connectivity to all villages** is another aim of the project.
- **Adding 17,000 kms to the gas pipeline network** is being planned under PM Gati Shakti.
- It will help in fulfilling the ambitious targets set by the govt for 2024-25, including **expanding length of national highway network to 2 lakh kms, creation of more than 200 new airports, heliports and water aerodromes**.
- The overall co-ordination of the scheme will be handled by the **Ministry of Commerce and Industry**.

Plan includes the development of **five main corridors**:

- **East-West Corridor:** Stretching from Silchar to Porbandar.
- **North-South Corridor:** Stretching from Srinagar to Kanyakumari.
- **North-East Corridor:** Stretching from Imphal to Kohima.
- **South-West Corridor:** Stretching from Ratnagiri to Kanyakumari.
- **East Coast Corridor:** Stretching from Kolkata to Kanyakumari.

Aims of PM Gati Shakti Master Plan:

- **Integrated planning and coordinated implementation** of infrastructure connectivity projects.
 - For example: Centralized portal to include all updates regarding existing & planned initiatives.
- **Multi-modal connectivity** for the movement of people, goods, services, etc. - facilitate **last mile connectivity**.
 - For example: **400 Vande Bharat trains** are to be manufactured and **200 PM Gati Shakti Cargo Terminals** are to be built.
- **Reducing logistics costs** by filling critical infrastructure gaps, thus improving supply chains.
 - Government aims to bring down **logistics costs from 13% to 8% of GDP**.
- **Making India the Business capital of the world** by providing proper linkages between local industry & and consumers.
 - For example: Economic Zones like pharma clusters, defence corridors, electronic parks, agri zones, industrial corridors, etc.



The Gati Shakti Vishwavidyalaya (GSV) is a Central University established through an Act of Parliament in 2022. It replaces the National Rail and Transportation Institute (NRTI) and is sponsored by the Ministry of Railways. The Chancellor of GSV is the Union Minister of Railways. GSV aims to create high-quality talent for the transportation and logistics sectors.

Source: Modi lauds PM Gati Shakti for driving faster development (The Hindu)

QUAD

Context: An opinion piece in the Hindu talks of the dilemmas India faces in its engagement with the Quad.



About Quad:

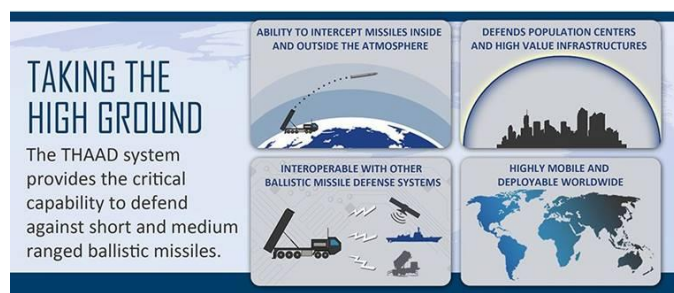
- Quad, or **Quadrilateral Security Dialogue**, is a diplomatic partnership among **Australia, India, Japan, and the US**.
- It focuses on stability and prosperity in the Indo-Pacific region, promoting an open, stable, and resilient environment.
- **Objectives of Quad:** The Quad aims to address pressing regional challenges, including health security, climate change, infrastructure, technology, cybersecurity, humanitarian assistance, maritime security, countering disinformation, and counter-terrorism.
- **Origins of Quad:** The Quad originated in response to the **2004 Indian Ocean tsunami**, where the four nations provided humanitarian assistance.
- Formally established in **2007** by the Japanese Prime Minister **Shinzo Abe**, the group went dormant due to concerns over China's reactions, particularly after Australia withdrew in 2008.

- It was revived in 2017 amid shifting regional attitudes toward China's influence, culminating in its first formal summit in 2021.
- **Expansion Potential:** “Quad-plus” meetings have included nations like South Korea, New Zealand, and Vietnam, indicating potential for future expansion.

Source: China, India and New Delhi's Quad dilemma (The Hindu)

TERMS IN NEWS

THAAD



- It is an acronym for **Terminal High Altitude Area Defense**, a transportable, ground-based anti-ballistic missile defence system.

- First proposed in 1987 and then finally deployed in 2008, the THAAD cannot be used as a form

of attack against an enemy.

- It is designed to **intercept and destroy short and medium-range ballistic missiles** in their final flight phase.
- THAAD is coupled with **space-based and ground-based surveillance** stations, which transfer data about the incoming missile and inform the THAAD interceptor missile of the threat type classification.
- This system has been designed and manufactured by the USA company **Lockheed Martin**.
- It has been previously deployed in the United Arab Emirates (UAE), Guam, Israel, Romania as well.
- Presently, the US is planning on supplying such systems for the defence of Israel.

Doppler Weather Radar

- A Doppler radar is a **specialized radar** that uses the Doppler effect to **produce velocity data** about objects at a distance.
- These radar systems can provide information regarding the movement of targets as well as their position.
- Doppler radars **help forecasters** to observe rainfall, and the advance of cloud formations over a region and subsequently monitor thunderstorms and lightning in real time.

Doppler Effect:

- It was first described (1842) by Austrian **physicist Christian Doppler**.

It is the apparent difference between the frequency at which sound or light waves leave a source and that at which they reach an observer, caused by the relative motion of the observer and the wave source.

PLACES IN NEWS

South China Sea

- The South China Sea is an arm of **western Pacific Ocean** in Southeast Asia.
- It is **south of China**, east & south of Vietnam, west of the Philippines and north of the island of Borneo.
- **Bordering states & territories** (clockwise from north): the People's Republic of China, the Republic of China (Taiwan), the Philippines, Malaysia, Brunei, Indonesia, Singapore and Vietnam.
- It is **connected by Taiwan Strait** with the **East China Sea** and by **Luzon Strait** with the **Philippine Sea**.
- It contains numerous shoals, reefs, atolls and islands. The Paracel Islands, the Spratly Islands and the Scarborough Shoal are the most important.



Importance:

- This sea holds tremendous strategic importance for its location as it is the connecting link between the Indian Ocean and the Pacific Ocean, through Strait of Malacca.
- According to the United Nations Conference on Trade and Development (UNCTAD) **one-third of the global shipping** passes through it, carrying trillions of trade which makes it a significant geopolitical water body.
- This sea has **one-third of the entire world's marine biodiversity** and contains lucrative fisheries providing food security to the Southeast Asian nations.
- The SCS is believed to have huge oil and gas reserves beneath its seabed. It is one of the world's most heavily trafficked waterways. An estimated USD 3.4 trillion in ship-borne commerce transits the sea each year, including energy supplies to U.S., Japan

and South Korea.

PRACTICE QUESTIONS

Q1. Consider the following statements:

1. Unrecognized political parties do not have exclusive symbols reserved for their use.
2. In case of a split in a political party, the decision as to which of the two remains the recognized party is with the ECI.

Which of the above statements is/are correct?

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

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

Q2. Consider the following statements:

1. Creation of eleven industrial corridors and two defence corridors
2. Extending 4G connectivity to all villages
3. Reducing logistics costs
4. Setting up of Gati Shakti Vishwavidyalaya.

How many of the above are aims/objectives of PM Gati Shakti National Master Plan?

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

Q4. What is “Terminal High Altitude Area Defense (THAAD)”, sometimes seen in the news?

- (a) An Israeli radar system
- (b) India’s indigenous anti-missile programme
- (c) An American anti-missile system
- (d) A defence collaboration between Japan and South Korea

Q5. How many of the following countries border the South China Sea?

1. Taiwan
2. Philippines
3. South Korea
4. Vietnam

Choose the correct answer based on the code given below:

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

Q3. With respect to the Kavach system, consider the following statements:

1. It is an indigenously developed Automatic Train Protection System.
2. It makes use of Near Field Communication (NFC) technology to prevent collisions.

Answers:

1. C
2. D
3. A
4. C
5. C