

GOVERNANCE**India's First Fully Automated Metro**

Recently, the Prime Minister has inaugurated the country's first fully automated Metro, (Driverless Metro) on Delhi Metro's Magenta Line.

- He also extended the fully operational National Common Mobility Card (NCMC) to the Airport Express Line of the Delhi Metro Rail Corporation (DMRC).

Key Points**Driverless Metro:**

- With this achievement, DMRC has entered the elite league of 7% of the world's Metro networks where such a facility is available.
- In 2014, only five cities had Metro rail and currently, it is present in 18 cities and the number of Metro users has also increased manifold.
- The driverless trains will be fully automated, eliminating the possibility of human error.
- The technology has different levels or Grades of Automation (GoA):
- In GoA 1, trains are run by one driver.
- In GoA 2 and GoA 3, the role of the driver is reduced to operating doors and for taking over in case of emergencies and the starting and halting of trains is automated.
- In GoA 4, trains are set on a completely unattended operations mode.

Significance:

- It uses a braking system in which 50% of the energy goes back into the grid when the brakes are applied, which will save a considerable amount of energy making it an energy-efficient system.
- In a boost to Make in India, various big companies are involved in the manufacturing of Metro coaches and dozens in the manufacture of Metro components.
- 130 MW of solar power is currently being used in the operations of Metro rail, which the government intends to increase to 600 MW.
- The Regional Rapid Transit System (RRTS) and Metro Lite models will reduce the distance between major cities and within them.

National Common Mobility Card:

- It will give access to all modes of transportation and will do away with commuters having to wait in long queues for tokens.
- It allows users to pay for travel, toll charges and retail shopping, and permits them to withdraw money at the same time.
- It will enable anyone carrying a RuPay-Debit Card issued in any part of the country to travel on the route.
- This will not only help provide a common platform for people but will also allow better research data. Researchers will be able to better assess the travelling patterns of people and accordingly suggest the best plan for development

Other Developmental Works in Delhi:

Incentivizing electric vehicles (EVs) by giving tax rebates.

The old infrastructure of the capital is being transformed into environment-friendly infrastructure based on modern technology.

Provision of better living conditions to slum dwellers through regularization of hundreds of colonies.

Opening up of new tourist destinations and generation of employment.

Work for the new Parliament building under the Central Vista Redevelopment Project will not only give employment to thousands of people from Delhi but will also change the face of the city.

INTERNATIONAL RELATIONS**India-Qatar**

Recently, India's External Affairs Minister met the top leaders of Qatar and discussed strengthening the economic and security cooperation between the two countries.

- The visit is part of India's ongoing outreach to West Asia, which the country sees as part of its extended neighbourhood.
- Qatar is a member of the **Gulf Cooperation Council**.

Key Points

- India and Qatar agreed to maintain regular consultations and coordination on all issues of mutual interest at multilateral fora.

- Issues of mutual interest include energy, power, petrochemicals, investments, infrastructure, development, project exports and education.
- Discussed ways to strengthen the multifaceted bilateral relationship in areas such as energy, trade, investment, food processing, healthcare, education, culture, defence and security.
- Bilateral trade was worth USD 10.95 billion in 2019-20.
- India thanked Qatar for taking care of people from the Indian community during the Covid-19 pandemic.
- India and Qatar have maintained close high-level contacts during the pandemic.
- India appreciated Qatari Businessmen Association's commitment for business partnerships with India and briefed them about new opportunities flowing from Atmanirbhar Bharat.
- Qatar's leader appreciated the contribution of the Indian community in Qatar and recalled his visits to India.

Recent Developments:

- Both the countries have decided to set up a special task force to facilitate investments by the Qatar Investment Authority, part of India's ongoing outreach to key West Asian states to overcome the economic impact of the Covid-19 pandemic.
- The two sides have agreed on institutionalising measures to promote and protect the rights of workers, including settling labour issues and facilitating the movement of people between the two countries in a safe and secure manner.

India-Qatar Relation

Economic Relations:

Trade volume:

- The last few years witnessed a palpable decline in the trade volume between the two countries due to the decline in the rates of gas and oil in the international market.
- India is considered to be the fourth largest export destination for the State of Qatar.
- Both India and Qatar also have a good relation in the banking sector.

Exports:

- Qatar's key exports to India include LNG, LPG, chemicals and petrochemicals, plastics, and aluminium articles.
- India's key exports to Qatar include cereals, copper articles, iron and steel articles, vegetables, plastic products, construction material, textiles & garments, etc.

Cooperation in the Field of Energy:

- Qatar is the largest supplier of liquefied natural gas (LNG) to India.
- India imports around 70% of its needs for the natural gas from Qatar.

Defence:

- India's defence cooperation with Qatar has so far been limited to training, participation in each other's conferences/events and visits by ships of Indian Navy and Coast Guard.
- Za'ir-Al-Bahr (Roar of the Sea) is the naval exercise between Indian and Qatar Navy.

Cultural Relations:

Cultural exchange:

There is a regular flow of Indian artists performing in Qatar at events organised by community organizations affiliated to the Indian Cultural Centre (ICC).

ICC is an apex body of associations of the Indian community functioning under the aegis of Embassy of India, Doha, and private sponsors.

Yoga:

- India appreciated Qatar's support, as a co-sponsor, to its Resolution at the United Nations General Assembly, adopted unanimously with a record 177 co-sponsors, declaring 21 June as the International Day of Yoga (IDY).

Education:

- There are 14 Indian schools in Qatar, offering CBSE curricula to over 30,000 students, most of whom are the children of Indian nationals working in Qatar.

Indian Community:

- Indian community is the largest expatriate group in Qatar which is estimated to be around 700 million people.

- They are making their contribution in different sectors. Indians are highly respected in Qatar for their sincerity, hard work, technical expertise and law-abiding nature.
- Indians are employed in almost every local establishment, governmental or private, in various capacities.

Remittances:

The remittances which the Indian expatriate community in Qatar send to India are estimated to be around 750 million dollar per annum.

Way Forward

Qatar wants to make investment in India in the domain of the infrastructure which includes roads, highways, economic corridors, airports, ports, tourism and hotels apart from the projects related to gas and fertilizers.

India is looking forward to the direct investment in the manufacturing and production of the liquefied natural gas and in chemical industries, especially the industry of fertilizers, urea, petrochemicals.

SCIENCE & TECHNOLOGY

Indigenous Vaccine Pneumosil

Recently, India's first fully indigenously developed pneumococcal conjugate vaccine "Pneumosil" has been launched.

Key Points

Developed by: Serum Institute of India (SII), through a collaboration with PATH and Bill and Melinda Gates Foundation.

- Serum Institute of India is a Pune based world's largest vaccine manufacturer by number of doses produced and sold globally.
- PATH is an international, nonprofit global health organization based in Seattle (USA).
- The Bill & Melinda Gates Foundation (BMGF) is an American private foundation, founded by Bill and Melinda Gates. Based in Seattle, Washington, the primary goals of the foundation are to enhance healthcare and reduce extreme poverty across the globe, and to expand educational opportunities and access to information technology in the USA.

Information about the Vaccine:

- The vaccine targets the pneumococcal bacterium, which causes pneumonia and other serious life-threatening diseases such as meningitis and sepsis, and is estimated to cause nearly four lakh deaths in children under five years of age each year worldwide.
- It will be available in the market at an affordable price in single dose and multidose presentations.
- While pneumococcal conjugate vaccines (PCVs) have helped reduce pneumococcal deaths, they are difficult for many countries to afford.
- The unique feature of the vaccine is its composition, which is specially tailored to the prevailing serotype prevalence of S Pneumoniae in India and other regions of the world.
- A serotype or serovar is a distinct variation within a species of bacteria or virus or among immune cells of different individuals.
- It was licensed by the Drugs Controller General (India) in July 2020.

Significance:

- It is an example of India's capability in Research & Development & manufacturing high end sophisticated Vaccines.
- Till now, India was fully dependent on Pneumococcal Conjugate Vaccine (PCV) manufactured by Foreign Manufacturers which are available at very high prices.
- The vaccine also makes SII the first developing country vaccine manufacturer to access the global PCV market.
- SII is also the maker of Covishield, the Indian version of the AstraZeneca-Oxford coronavirus vaccine.

Pneumococcal Disease

About the Disease:

- Pneumococcal disease is a name for any infection caused by bacteria called Streptococcus pneumoniae or pneumococcus.
- The bacteria is the most common cause of bloodstream infections, pneumonia, meningitis, and middle ear infections in young children.

- Pneumonia is an infection of the lungs. Many different bacteria, viruses, and even fungi can cause pneumonia. Pneumococcus is one of the most common causes of severe pneumonia.
- Doctors consider some of these infections “invasive”.
- Invasive disease means that germs invade parts of the body that are normally free from germs.
- For example, pneumococcal bacteria can invade the bloodstream, causing bacteremia, and the tissues and fluids covering the brain and spinal cord, causing meningitis. When this happens, disease is usually very severe, requiring treatment in a hospital and even causing death in some cases.

Disease Burden:

- Annually India witnesses an estimated 71% of pneumonia deaths and 57% of severe pneumonia cases.
- According to the World Health Organisation (WHO), pneumonia accounts for 15% of all deaths of children under 5 years.

Prevention:

- Pneumococcal Conjugate Vaccine (PCV) prevents pneumococcal disease.
- The vaccine is a mix of several bacteria of the pneumococci family, which are known to cause pneumonia, hence ‘conjugate’ is included in the name of the vaccine.
- Conjugate vaccines are made using a combination of two different components.
- The Indian government has been ensuring PCV under Universal Immunisation Programme (UIP) to fight pneumococcal disease.

INDIAN ECONOMY

Special Zero Coupon Recapitalisation Bonds

Recently, the government has used financial innovation to recapitalise Punjab & Sind Bank by issuing the bank Rs. 5,500 crore worth Special Zero Coupon Recapitalisation Bonds.

- Punjab & Sind Bank is a Government of India undertaking.

Key Points

Bank Recapitalisation:

- It means infusing more capital in state-run banks so that they meet the capital adequacy norms.
- Indian public sector banks are emphasized to maintain a Capital Adequacy Ratio (CAR) of 12%.
- CAR is the ratio of a bank’s capital in relation to its risk weighted assets and current liabilities.
- The government, using different instruments, infuses capital into banks facing shortage of capital. As the government is the biggest shareholder in public sector banks, the responsibility of bolstering banks’ capital reserves lies with the government.
- The government infuses capital in banks by either buying new shares or by issuing bonds.

Reason for Recapitalisation:

- In compliance with Reserve Bank of India (RBI) guidelines which are based on Basel norms requiring banks to maintain certain amounts of capital reserves.

Recapitalisation Bonds:

- The government issues bonds which are subscribed by banks. The money collected by the government goes to banks in the form of equity capital as the government increases its share of equity holding, thereby shoring up banks’ capital reserves.
- The money invested by banks in recapitalisation bonds is classified as an investment which earns them an interest. This helps the government in maintaining its fiscal deficit target as no money directly goes out from its coffers.

Special Zero Coupon Recapitalisation Bonds :

- These are special types of bonds issued by the Central government specifically to a particular institution.
- Only those banks, whosoever is specified, can invest in them, nobody else.
- It is not tradable, it is not transferable. It is limited only to a specific bank, and it is for a specified period.
- There is no coupon, it is zero coupon, it is issued at par and will be paid at the end of the specified period.
- Coupon is the Interest which the Investor gets on a bond.
- It is held at the Held-To-Maturity (HTM) category of the bank as per the RBI guidelines.

- HTM securities are purchased to be owned until maturity.
- These are instruments which are a variation of the recapitalisation bonds but effectively meet the same purpose, and these are issued in conformity with the RBI guidelines.
- Financial Innovation: As the issuance of these special bonds will not affect the fiscal deficit while at the same time provide much needed equity capital to the bank.

Difference Between Normal Zero Coupon Bonds and Special Zero Coupon Bonds:

Zero Coupon Bonds:

- Zero-Coupon Bond, also known as the pure discount bond or deep discount bond, is purchased at a discounted price and does not pay any coupons or periodic interests to the fundholders.
- The difference between the purchase price of a zero coupon bond and the par value at the time of maturity, indicates the investor's return.
- The Zero Coupon bonds generally come with a time horizon of 10 to 15 years.
- Difference: Special Zero Coupon Bonds are being issued at par, there is no interest however Normal Zero Coupon Bonds are issued at discount therefore they technically are interest bearing.

Bonds

A bond is a fixed income instrument that represents a loan made by an investor to a borrower. In simpler words, a bond acts as a contract between the investor and the borrower.

Mostly Companies and Government issue bonds and Investors buy those bonds as a savings and security option.

These bonds have a maturity date and when once that is attained, the issuing company needs to pay back the amount to the investor along with a part of the profit.

IMPORTANT FACTS FOR PRELIM

'Adopt a Heritage: Apni Dharohar, Apni Pehchaan' Project

Recently, a review meeting of the "Adopt a Heritage: Apni Dharohar, Apni Pehchaan" project was held.

Key Points

- Launch: 27th September, 2017 (World Tourism Day).
- Ministries/Agencies Involved: It is a collaborative effort by the Ministry of Tourism, Ministry of Culture and Archaeological Survey of India (ASI), State/UTs Governments.
- Aim: To develop tourism amenities at heritage/ natural/ tourist sites spread across India for making them tourist friendly, in a planned and phased manner.

Implementation:

- The sites/monuments are selected on the basis of tourist footfall and visibility and can be adopted by private and public sector companies and individuals — known as Monument Mitras — for an initial period of five years.
- The Monument Mitras are selected by the 'oversight and vision committee,' co-chaired by the Tourism Secretary and the Culture Secretary, on the basis of the bidder's 'vision' for development of all amenities at the heritage site.
- There is no financial bid involved.
- The corporate sector is expected to use Corporate Social Responsibility (CSR) funds for the upkeep of the site.

Amenities:

- Basic facilities such as clean drinking water facility; illumination; ease of access; aesthetics and cleanliness of site; installation of digi kiosk and ticketing kiosk; signage - descriptive and directional; Wi-Fi.
- Advance amenities such as Visitor Facility Centre; Sound and Light Show; Snack Counter & Souvenir Shop; Augmented Reality Experience and Virtual Reality (360-degree experience).
- Benefits to Monument Mitras:
- They will get limited visibility on the site premises and on the Incredible India website.

Status:

- Under the project, 27 Memorandum of Understandings (MoUs) have been awarded to 12 Monument Mitras for 25 sites and 2 technological interventions across India.

Other Schemes for Promoting Tourism:

- DekhoApnaDesh

- Iconic Tourist Sites
- Swadesh Darshan
- Pilgrimage Rejuvenation and Spiritual, Heritage Augmentation Drive (PRASHAD)

DAILY ANSWER WRITING PRACTICE

Qns What do you understand by scheduled tribes? Examine the dilemma related to the development of the tribes in India.

Ans:

Scheduled Tribes, as a term, was introduced as a part of Government of India Act, 1935 to give legal recognition to list of tribes marked for special treatment by the state, which is still practised as evident in affirmative actions provided under Indian Constitution. In general, the scheduled tribes are described by the following characteristics:

- Communities that are very old and did not practise a religion with a written text.
- They did not have a political form of the normal kind.
- They did not have sharp class divisions, were not part of the caste system and were neither Hindu nor peasants.

Tribes can be classified as:

- Having Permanent traits like region (middle India, North-East), language (Austic, Tibeto-Burman etc.), physical characteristics (Mongloid, Aryan etc.), ecological habitat.
- Acquired Characteristics like mode of living, the extent of incorporation into Hindu Society.

Dilemma related to their Development in India

- **Tribe-Caste Distinction:** Tribal community is less stratified while absorption into the mainstream is creating new class, caste-based division. There is also the erosion of community sense of ownership of resources.
- **Traditional Culture Vs New Values:** By way of Sanskritization, modernisation, a traditional cultural system of tribals is eroding like languages, dialect. This is challenging their identity leading to resistance and opposition among them example demand for a separate state by Nagas.
- **Development Vs Rights:** Economic Development of the nation many times leads to their exploitation, especially in forested and mineral belt regions. These challenges affect their means of livelihood and their ethnicity leading to displacement and challenges of rehabilitation, for example- Narmada Bachao Andolan.
- **Human Development Vs Traditional Systems:** Providing modern education, health facilities may at times challenge the orthodoxy resulting in resistance. This, in turn, stems from lack of harmony between newer means and their traditional systems, example low vaccine coverage due to superstitious among tribals.

Resolving dilemma

- Making them part of the democratic process and decision makings like PESA Act, Special Powers to Scheduled and Tribal Areas.
- Making them part of the developmental process, example Forest Rights Act for managing forest-based resources.
- Human Development congruous to their traditional systems like Eklavya Model Schools.
- Upholding their rights and preventing their exploitation like Land Rehabilitation Act, Mines and Minerals Act etc.

DAILY QUIZ

1. With reference to Special Zero Coupon Recapitalisation Bonds, consider the following statements:

1. It is not tradable, but transferable.
2. The issuance of these special bonds will not affect the fiscal deficit.

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

2. With reference to 'Adopt a Heritage Project', consider the following statements:

1. It aims to develop tourism amenities at tourist sites spread across India for making them tourist friendly.
2. The Ministry of Tourism is solely responsible for the project implementation.

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

3. With reference to National Common Mobility Card, consider the following statements:

- 1. It provides access to all modes of transportation at subsidised rates for below poverty line households.
- 2. It is launched by the Ministry of Housing and Urban Affairs.

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

4. With reference to National Common Mobility Card, consider the following statements:

- 1. It provides access to all modes of transportation at subsidised rates for below poverty line households.
- 2. It is launched by the Ministry of Housing and Urban Affairs.

Which of the statements given above is/are correct?

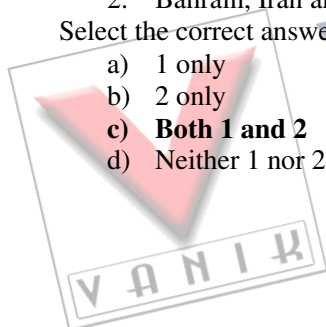
- a) 1 only
- b) 2 only
- c) **Both 1 and 2**
- d) Neither 1 nor 2

5. Which of the following statements is/are not correct about Qatar:

- 1. Only Saudi Arabia shares land borders with Qatar.
- 2. Bahrain, Iran and UAE share maritime borders with Qatar.

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



VANIK-ias
Exclusive Coaching for UPSC/OPSC