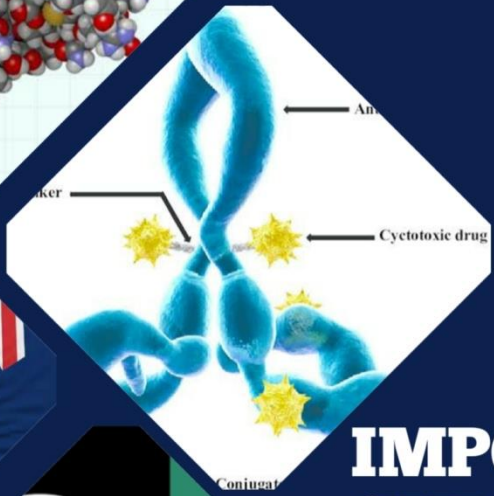
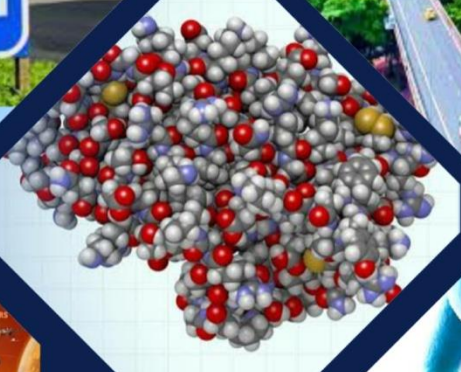
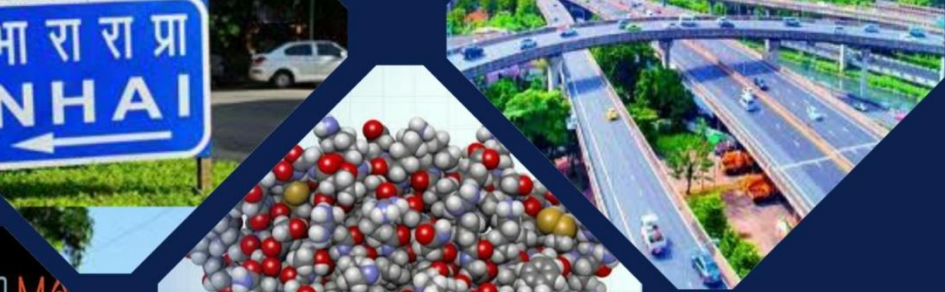


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# IMPORTANT CURRENT AFFAIRS FOR PRELIMS VOL 06

- TOLL- OPERATE- TRANSFER:
- HARMONISED LIST OF INFRASTRUCTURE STATUS
- MARS MISSIONS OF VARIOUS NATIONS:
- BIOLOGIC DRUG
- ANTIBODY CONJUGATES
- QUAD
- MEDICINE PATENT POOL
- BIWAKO MILLENNIUM FRAMEWORK

SCAN TO EXPLORE





**IMPORTANT CURRENT AFFAIRS**

**FOR PRELIMS VOL - 06**

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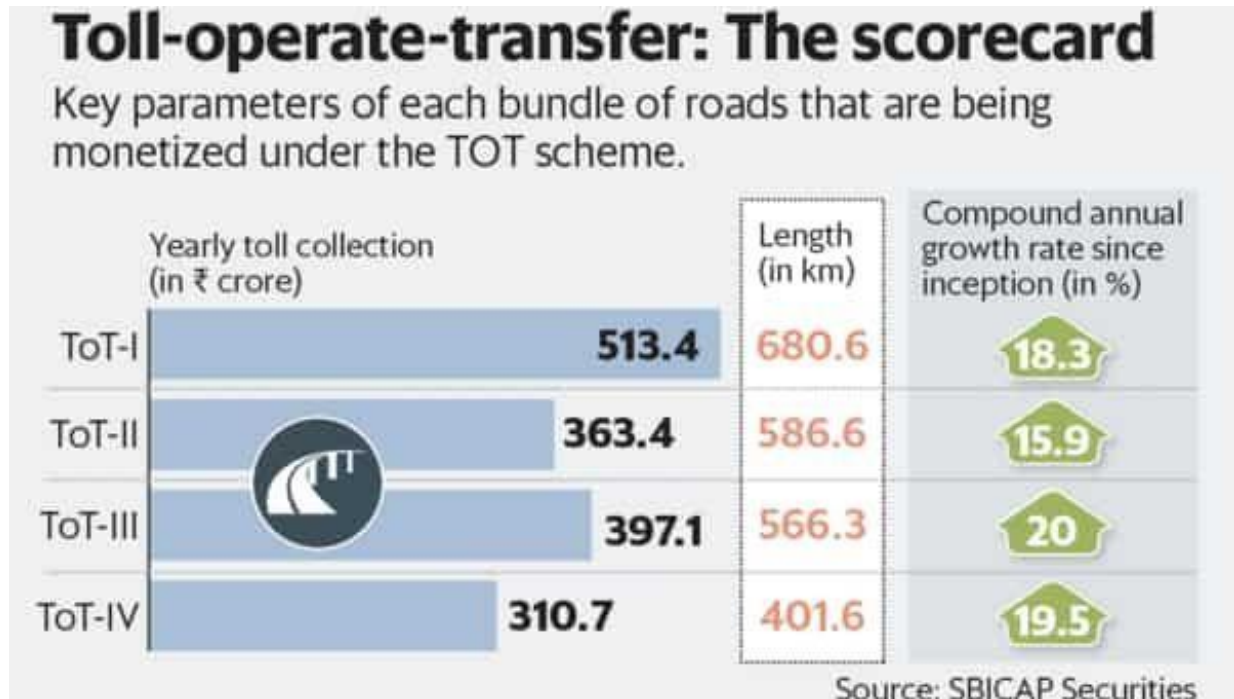
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## INDIAN ECONOMY

### 1. TOLL- OPERATE-TRANSFER:

**IN NEWS:** Centre plans to monetise several of its big-ticket infrastructures across sectors in the next five years under its Asset Monetisation Programme to generate funds.



- The Ministry of Road Transport and Highways has made certain changes in the Toll-Operate-Transfer (TOT) for generating income from National Highways.
- In order to do this, in 2016, the central government had authorised the National Highway Authority of India (NHAI) to transfer certain public funded National Highway projects into TOT model.
- The revenue generated from this, would be used for the future development, operation, and maintenance of highways by government of India.
- Previously (before TOT), projects could be monetised only if

they are operational and have been generating toll income for last two years after the commercial operations date. This period has been reduced to one year.

- The NHAI Board will approve each TOT proposal after careful examination of each project. This will include details of tender project stretches, appraised concession value and the suggested concession period.
- NHAI may differ the concession period from 15 to 30 years subjective to each project.
- NHAI may raise long term loans from banks by pledging the user fee receipts collected from the toll fee plazas.



## **2. Harmonised list of infrastructure status:**

- Infrastructure sector need a proper definition because the list of infrastructures which are considered as bankable by RBI wouldn't be the same list by ministry of finance. Thus, a common definition is needed for infrastructure in India.
- Therefore, central government made a master list of infrastructure sector which included RBI's list too.

Thus, forming Harmonized list of infrastructure status.

### Check: Different investment

- ❖ The list includes 5 main sectors and 34 sub-sectors
- ❖ 5 main sectors are:
  - ✓ **Communication:** communication towers and services.
  - ✓ **Water and Sanitation:** Sewage plants , SolidWaste management, Irrigation, Water Treatment plants etc.
  - ✓ **Transport:** Roads, Railways, Waterways, Airports, Pipelines ETC. **Energy:** Projects of Generation, Transmission, Distribution and Storage systems of Oil, Natural gas etc.
  - ✓ **Social infrastructure:** Educational Institutions, Sports, Hospitals, Tourism infrastructure, Cold Chain Infrastructure, Affordable housing, convention centers etc

## SCIENCE AND TECHNOLOGY

### 2. Mars missions of various nations:

- China had in July last year launched its first Mars mission, called Tianwen-1, carrying a lander and rover.
- A lander descended successfully on to the surface of the red planet carrying a rover named Zhurong
- China became third country to achieve this feat of landing on Mars, after Soviet Union and the U.S.
- **Mars missions of other nations:**
  - ✓ **NASA-** Mars insight; rovers curiosity and perseverance; mars reconnaissance orbiter , mars odyssey, MAVEN.
  - ✓ **India:** Mangalyan-1

- ✓ **European union:** Mars express and ExoMars trace gas orbiter.
- ✓ **China:** Tianwen-1
- ✓ **UAE:** Hope

### Previous Year Question

Consider the following statements:

The Mangalyaan launched by ISRO

1. Is also called the Mars Orbiter Mission.
2. Made India the second Country to have a Spacecraft orbit the Mars after USA.
3. Made India the only country to be successful in making its spacecraft orbit the Mars in its very first attempt

Which of the statements given above is//are correct?

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

**ANS: C**

### 4. Biologic Drug:

- ❖ Biologic drug is a product that is produced from living organisms or contain components of living organisms
- ❖ Biologic drugs include a wide variety of products derived from human, animal, or microorganisms by using biotechnology.
- ❖ In this the main aim is to target a defective protein in the system by delivering proteins to it. Ex: insulin treatment: when a person is short of insulin, which is a protein, they are given a shot of this to balance the system. This method works because body needs a circulation of insulin outside the cells.
- ❖ At present we have 20,000 identified proteins and when one of these is malfunctioning, we have no provision of taking this malfunctioning protein specifically inside the cell. That is a big problem in biologics. It would create a revolution in biologics if we are able to achieve this issue.

### 5. Antibody conjugates:

**Antibody-drug conjugates** or **ADCs** are a class of biopharmaceutical drugs designed as a targeted therapy for treating cancer. Unlike chemotherapy, ADCs are intended to target and kill tumor cells while sparing healthy cells. As of 2019, some 56 pharmaceutical companies were developing ADCs.

- ADCs are complex molecules composed of an antibody linked to a biologically active cytotoxic (anticancer) payload or drug. Antibody-drug conjugates are examples of bioconjugates and immunoconjugates.
- ADCs combine the targeting capabilities of monoclonal antibodies with the cancer-killing ability of cytotoxic drugs. They can be designed to discriminate between healthy and diseased tissue.

### The way they work:

- An anticancer drug is coupled to an antibody that specifically targets a certain tumor antigen Ex: a protein that, ideally, is only to be found in or on tumor cells.
- Antibodies attach themselves to the antigens on the surface of cancerous cells. The biochemical reaction between the antibody and the target protein (antigen) triggers a signal in the tumor cell, which then absorbs or internalizes the antibody together with the linked cytotoxin.
- After the ADC is internalized, the cytotoxin kills the cancer. This targeting limit side effects and gives a wider therapeutic window than other chemotherapeutic agents.

#### 4. QUAD:



- The **Quadrilateral Security Dialogue (QSD)**, also known as **QUAD**) is a strategic security dialogue between the United States, India, Japan and Australia that is maintained by talks between member countries.
- The dialogue was initiated in 2007 by Japanese Prime Minister Shinzo Abe, with the support of U.S. Vice President Dick Cheney, Australian Prime Minister John Howard, and Indian Prime Minister Manmohan Singh.
- The Quad ceased following the withdrawal of Australia, reflecting ambivalence in Australian policy over the growing tension between the United States and China in the Asia-Pacific. But in 2010, enhanced military cooperation between the United States and Australia was resumed. Now Australia, overlooking the Timor Sea and Lombok Strait. Meanwhile, India, Japan, and the United States continued to hold joint naval exercises under Malabar.
- Tensions between Quad members and China have led to fears of what was christened as "a new Cold War" in the



region.

- In 2021, the Quad members described "**a shared vision for a Free and Open Indo-Pacific,**" and a "**rules-based maritime**

**Check:** Countries and important islands in the Indian Ocean region

- **order in the East and South China Seas,**" which the Quad members state are needed to counter Chinese maritime claims. The Quad pledged to respond to COVID-19, and held a first **Quad Plus** meeting that included representatives from **New Zealand, South Korea and Vietnam** to work on its response to it.

### **5. Medicine patent pool:**

- The **Medicines Patent Pool** (MPP) is a **Unitaid**-backed international organisation founded in 2010, based in Geneva, Switzerland.
- Its public health driven business model aims to lower the prices of HIV, tuberculosis and hepatitis C medicines and facilitate the development of better-adapted HIV treatments through voluntary licensing and patent pooling.
- Its goal is to improve access to affordable and appropriate HIV, hepatitis C and tuberculosis medicines in low- and middle-income countries (LMIC).
- It encourages the Patent holders to enter into non-exclusionary voluntary licensing agreements with other pharma companies to ramp up production of life saving patented drugs and bring down their prices.
- Economics research finds evidence that the pool increases generic diffusion in LMIC (low to middle income countries) and upstream innovation. In 2020, the MPP become an implementing partner of the WHO's **Covid-19 Technology Access Pool (C-TAP)**.

## SOCIAL JUSTICE

### 6. Biwako millennium framework:



- The regional framework for action explicitly incorporates the millennium development goals and their relevant targets to ensure that concerns relating to persons with disabilities become an integral part of efforts to achieve the goal.
- Ways of achieving it:
  - ✓ National plan of action (five years) on disability.
  - ✓ Promotion of a rights-based approach to disability issues. *Have fun. Achieve dreams.*
  - ✓ Disability statistics/common definition of disabilities for planning.
  - ✓ Strengthened community-based approaches to the prevention of causes of disability, rehabilitation and empowerment of persons with disabilities.

**India is a signatory to:** 'Declaration on the Full Participation and Equality of People with Disabilities in the Asia Pacific Region' (2000) 'UN Convention on the Rights of Persons with Disabilities' (2008) and 'Biwako Millennium Framework (2002) for action towards an inclusive, barrier free and rights-based society

**Check:** Government schemes and policies for disabled

Practice questions:

**Q.1** TOLL-OPERATE- TRANSFER is a model framed by:

- a. Ministry of road transport and highways
- b. Ministry of economic affairs
- c. Ministry of commerce and industries
- d. Ministry of development of north east region.

**Q.2** Which of the following is not a main sector under Harmonized list of infrastructure status?

- a. communication
- b. defense
- c. water and sanitation
- d. energy

**Q.3** Mars mission 'Mars Express' was sent by

- a. European union
- b. US
- c. Greece
- d. France

**Q.4** Country which did not participate in QUAD plus meeting is:

- a. New Zealand
- b. Indonesia
- c. South Korea
- d. Vietnam

**ANSWER:**

1.a 2.b 3. a 4.b



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