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MCQs

THE HINDU

Time runs short for Iran and America

Prelims : General Studies Paper I

Current events of national and international importance

Mains: General Studies 2

Effect of policies and politics of developed and developing countries on India's interests, Indian diaspora.

Why in Focus?

- The **U.S. and Iran** have resumed negotiations after seven months of war, but previous talks had failed.
- Both sides face **economic and political pressure**, increasing the need for a temporary peace.

Key Highlights

- Iran has proposed a **seven-point plan**, but the U.S. has rejected it.
- The U.S. has much greater **economic and military strength**, while Iran relies on **asymmetric warfare**.
 - ◆ **Asymmetric warfare** is a form of conflict where a weaker side uses **unconventional tactics such as guerrilla attacks, sabotage, ambushes, cyberattacks and misinformation** to challenge a stronger opponent.

- The war has created pressure through **inflation, ammunition shortages and economic costs**.
- The **Strait of Hormuz** remains a major point of tension because of its importance for global oil supplies.
- Both sides may seek a "**Hudna**", or temporary peace, instead of continuing the conflict.
- **Qatar and Oman** are involved in efforts to reduce tensions and support negotiations.
- Long-term peace remains difficult because of disputes over Iran's **nuclear and missile programmes** and its regional proxy groups.
- Iran's possible **escalation strategy** includes advanced weapons, a possible **Houthi blockade of the Bab al-Mandeb**, attacks on U.S. Gulf allies and possible pre-emptive strikes.
- The conflict also affects **Israel and Gulf countries**, increasing regional instability.
- Countries such as **Iraq and Jordan** have suffered economic and security impacts from the conflict.
- The future of **oil prices and energy security** remains closely linked to developments in West Asia.

Implications

- Continued conflict could disrupt **global energy supplies**, especially through the **Strait of Hormuz**.
- A possible **Houthi blockade of Bab al-Mandeb** could disrupt another major global shipping



route, affecting trade and oil supplies.

- Prolonged U.S.-Iran tensions could deepen **regional instability** and increase the risk of wider conflict.
- Even if a U.S.-Iran peace deal is reached, **Iran-Israel tensions** may continue to shape West Asian geopolitics.
- Gulf countries may reconsider their **security dependence on the U.S.** due to the limits exposed by the conflict.
- Higher geopolitical risks could make **oil prices more dependent on security developments** rather than only supply and demand.
- The conflict could strengthen the role of **regional diplomacy and mediators** such as Oman and Qatar in managing West Asian tensions.

Way Forward

- Continue **diplomatic negotiations** for a sustainable ceasefire.
- Use regional mediators such as **Qatar and Oman** to build trust.
- Develop **confidence-building measures** around the Strait of Hormuz.
- Address nuclear, missile and proxy-related issues through **diplomatic dialogue**.
- Protect **energy supplies and major maritime trade routes** from further disruption.

Mains Question

The U.S.-Iran conflict has consequences beyond the two countries, affecting energy security, trade and stability in West Asia. Discuss. (250 words)

Tackling food loss and waste — India's opportunity

Prelims : General Studies Paper I

Economic and Social Development- Sustainable Development, Poverty, Inclusion, Demographics, Social Sector Initiatives, etc.

Mains: General Studies 3

System- objectives, functioning, limitations, revamping; issues of buffer stocks and food security;

Why in Focus?

- **Food loss and waste** affect India's food security, environment and farmers' incomes.
- **September 29**, the International Day of Awareness of Food Loss and Waste, highlights the need to reduce these losses.

Key Highlights

- **India produces enough to feed its population of 1.4 billion**, yet a significant share of its produce is **lost across the value chain**.
- India is the only country to have conducted **three national post-harvest loss surveys**.
- The **Ministry of Food Processing Industries** assessed post-harvest losses in **45, 45 and 54 commodities** during **2005-07, 2012-14 and 2020-22**, respectively, covering the supply chain from **farm to retail**.
- A **fourth survey is now underway**.
- Data on food waste from **households, hotels, restaurants and retail** remains limited.
- Better **storage, drying, cooling and processing** can reduce food losses.
- **Digital tools** such as traceability systems can improve food supply chains.
- Surplus food can be **redistributed**, while organic waste can be converted into **compost, biogas or energy**.
- Assessments by the **FAO** and the **National Council of Agriculture Marketing Boards (COSAMB)** found that major wholesale markets can generate up to **100 tonnes of organic waste per day**.
- India generates an estimated **3.5 million tonnes of organic waste annually** from wholesale markets.
- Treating this waste could reduce around **3.3 million tonnes of CO₂-equivalent emissions** each year.
- A **50-tonne-per-day bio-CNG plant in Surat** reportedly reduces methane-related emissions by about 7,500 tonnes annually.
- **FAO and Small Industries Development Bank of India (SIDBI)** are supporting small businesses in adopting technologies for better storage, cooling and moisture control.



- India needs better **data, investment and technology** to reduce food loss and waste.

Implications

- Reducing food loss can improve **food security and nutrition**.
- It can reduce **greenhouse gas emissions** and pressure on natural resources.
- Better storage and processing can increase **farmers' incomes and productivity**.
- Waste-to-resource models can create **economic value** through compost, biogas and energy.

Way Forward

- Improve data on food waste at the **household, retail and food-service levels**.
- Invest in better **storage, cooling, processing and transport**.
- Support farmers and small businesses with **affordable finance and technology**.
- Improve **segregation and treatment of organic waste** in markets and cities.
- Integrate food-loss reduction into **agriculture, food processing, urban and climate policies**.

Mains Question

Food loss and waste pose challenges to India's food security, environmental sustainability and farmers' incomes. Discuss the measures needed to address the problem. (250 words)

Rare-disease drugs can be India's next pharma frontier

Prelims: General Paper 1

Current events of national and international importance.

Mains: General studies 2

Government policies and interventions for development in various sectors and issues arising out of their design and implementation.

Why in Focus?

- Rare diseases affect a small number of people individually, but together they affect **hundreds of millions globally**. India has reported **1,004 rare genetic disorders (about 8000 globally)**, but access to their treatment remains difficult because orphan drugs are often extremely expensive.
- The country has an opportunity to use its **large patient base** and **strong pharmaceutical manufacturing capacity** to develop and produce such drugs.

Key Highlights

- Rare diseases** affect very few people individually. Since the market for their medicines is small, pharmaceutical companies have traditionally had less interest in developing them.
- These medicines are called **orphan drugs**. Governments therefore provide incentives to encourage their development.
- The **U.S. Orphan Drug Act, 1983** provided tax incentives, grants, regulatory fee waivers and market exclusivity. This increased the development of medicines for rare diseases.
- The major problem is **high cost**. Some rare-disease medicines can cost around **\$100,000 or ₹1 crore per year**, making them unaffordable without government or insurance support.
- India has an advantage because its **large population** provides a relatively large patient pool for clinical trials. In some communities, **endogamy** has also increased the prevalence of particular genetic disorders.
- India also has strong **pharmaceutical manufacturing capacity**. It produces generics, biosimilars and advanced therapies such as **CAR-T (Chimeric Antigen Receptor T-cell) therapy (cancer treatment)** at comparatively lower costs.
- Therefore, India can potentially combine its **large patient base, research capacity and low-cost manufacturing** to develop and produce affordable orphan drugs.

Implications

- High treatment costs** remain the biggest barrier. Government support of up to **₹50 lakh**



may still be insufficient for some expensive therapies, forcing families to depend on crowdfunding.

- **Limited availability of medicines** is another major problem. Existing drugs cover only around **5% of rare diseases**, leaving most patients without suitable treatment.
- **Clinical trials are difficult** because researchers have to identify enough patients with the same rare disease and establish suitable **clinical endpoints** to measure whether a treatment works.
- **Small-scale manufacturing** is challenging because companies may not find it commercially attractive to produce medicines for a very small number of patients.
- There is a difficult balance between **innovation and affordability**. Companies need returns on research and development, but very high prices can prevent patients from accessing life-saving medicines.
- **Equity and benefit-sharing** are important concerns. Patients who participate in clinical trials should also have reasonable access to the medicines developed using their participation and data.

Way Forward

- Encourage **collaboration between Indian institutions, foreign pharmaceutical companies and patient organisations** for clinical trials and drug development.
- Provide **tax incentives, Production-Linked Incentives (PLI), technology-transfer support and Advanced Market Commitments (AMCs)** to encourage domestic production of orphan drugs.
- Create a **simpler and transparent regulatory pathway** while maintaining strict standards for safety, quality, effectiveness and **pharmacovigilance**.
- Link government incentives to **affordable patient access** so that public support benefits patients and is not limited to subsidising pharmaceutical companies.
- Strengthen **disease registries, patient groups and Centres of Excellence for Rare Diseases** to improve diagnosis, research, clinical trials and access to treatment.

Mains Question

Q. Rare diseases pose a major challenge to both pharmaceutical innovation and affordable healthcare. Discuss the challenges faced by India in ensuring access to orphan drugs and suggest measures to develop an accessible and sustainable rare-disease treatment ecosystem. (15 marks, 250 words)

A new governance model for Ladakh

Prelims: General Paper 1

Current events of national and international importance.

Mains: General studies 2

Functions and responsibilities of the Union and the States, issues and challenges pertaining to the federal structure, devolution of powers and finances up to local levels and challenges therein.

Why in Focus?

- Ladakh has been demanding **Sixth Schedule status** to protect its land, culture, language and tribal interests.
- The Central Government has instead proposed a **directly elected legislative body under Article 371-K** to provide greater local representation while retaining Ladakh's status as a Union Territory.

Key Highlights

- **Ladakh became a Union Territory in 2019** under the **Jammu and Kashmir Reorganisation Act, 2019**. Unlike some other Union Territories, it does not have a Legislative Assembly.
- After becoming a Union Territory, local groups raised concerns about **political representation, protection of land, employment, culture, language and customary practices**.
- Ladakh has therefore demanded inclusion under the **Sixth Schedule** of the Constitution. The Sixth Schedule provides **autonomous governance** to tribal areas in **Assam, Meghalaya, Tripura and Mizoram**.
- The Sixth Schedule operates under **Articles 244(2) and 275(1)**. It provides for **Autonomous**

District Councils with powers over subjects such as land, forests, customs and local administration.

- The Central Government has proposed a **sui generis (unique) governance model** for Ladakh through a proposed **Article 371-K** in Part XXI of the Constitution.
- The proposal would create a **directly elected legislative body** for Ladakh. It is intended to improve **political representation and local participation** while protecting Ladakh's strategic importance.
- The exact powers of the proposed body, including **financial powers, legislative powers and its relationship with the Lieutenant Governor (LG), Ladakh Autonomous Hill Development Councils (LAHDCs) and Panchayats**, need further clarity.

Implications

- **Political representation** remains a major concern because Ladakh currently does not have its own Legislative Assembly.
- **Protection of local interests** requires safeguards for **land, culture, language, employment and customary practices**.
- There may be **overlapping powers** between the proposed elected body, the **LG, LAHDCs and Panchayati Raj Institutions** unless their roles are clearly defined.
- **Financial autonomy** is important because an elected body may have limited effectiveness if it does not have adequate funds and decision-making powers.
- Ladakh has a **strategic location along India's international borders**. Greater local autonomy must therefore be balanced with **national security and territorial integrity**.
- The issue reflects **asymmetric federalism**, where different regions can have different governance arrangements based on their **historical, geographical, cultural and security requirements**.

Way Forward

- Establish a **clear constitutional and legislative framework** defining the powers of the proposed elected authority and its relationship with the Lieutenant Governor.

- Ensure meaningful **political representation and local participation** while protecting the strategic and territorial interests of the Union.
- Provide appropriate safeguards for **land, culture, language and customary practices** of Ladakh's communities.
- Clearly define the division of powers and responsibilities between the proposed authority, **LAHDCs, panchayats and district-level institutions**.
- Ensure adequate **financial and administrative powers** for effective local governance while maintaining necessary coordination with the Union Government.

Mains Question

Ladakh's demand for Sixth Schedule status and the proposed Article 371-K highlight the flexibility of India's asymmetric federalism. Discuss how a special governance model can balance local aspirations with national security and territorial integrity. (15 marks, 250 words)

KEYWORDS

Tiangong Space Station



- The **Tiangong Space Station** is in the news because **China is training Pakistani pilots**, with one expected to become the first foreign astronaut to travel to the station and conduct scientific experiments in orbit.
- **Tiangong**, meaning "**Heavenly Palace**", is China's **permanently crewed space**



station operating in **Low Earth Orbit (LEO)** at an altitude of **340–450 km**.

- The station has a **T-shaped modular architecture** with three main sections — the **Tianhe core module** for living quarters and control, and the **Wentian and Mengtian laboratory modules**.
- It functions as a **space laboratory** for research in **microgravity physics, biotechnology and life sciences**, with an operational lifespan of at least **10–15 years**.
- Tiangong has hosted **180+ scientific experiments**, producing **500+ research papers and 150 patents**, highlighting its capabilities in **space-based scientific research**.

Tenth schedule

- It was inserted into the Indian Constitution through the **52nd Constitutional Amendment Act of 1985** to curb the unethical practice of **political defections** and ensure stability in parliamentary democracy.
- Legislators can be disqualified if they **voluntarily give up party membership, vote or abstain from voting contrary to the party whip**, or if an **independently elected member joins a political party**.
- A **nominated member** of a House faces disqualification if they join any political party **after six months** from the date they take their seat.
- The law provides an exception for **party mergers**, allowing a political party to merge with another without disqualification if **at least two-thirds of its legislators** agree to the merger. This threshold was established by the **91st Constitutional Amendment Act, 2003**.
- The **Presiding Officer of the House** such as the Speaker or Chairman decides disqualification petitions. The Supreme Court's landmark **Kihoto Hollohan case (1992)** established that such decisions are **subject to judicial review**.

Food and Agriculture Organization (FAO)

- **FAO** is a **specialized agency of the United Nations** established in **1945**.
- It leads international efforts to **combat hunger and improve food security**.
- Its main goal is to ensure that people have **regular access to sufficient and nutritious food**.
- **FAO** works on issues related to **agriculture, fisheries, forestry and food systems**.
- It has **194 members**, including **193 countries and the European Union**.

Places in News

Belize

- **An Indian Coast Guard operation off the Odisha coast averted a major oil spill and rescued a Belize-flagged ship.**
- **Belize** is a country in **northeastern Central America**, located south of the **Yucatán Peninsula**.
- It was formerly known as **British Honduras** and became independent from the **United Kingdom on 21 September 1981**.
- Belize is a member of the **Commonwealth** and retains historical links with the UK.
- It shares land borders with **Mexico** to the north and **Guatemala** to the west and south, while the **Caribbean Sea** lies to the east.
- The **Maya Mountains** dominate the southern part of the country, with rugged hills and valleys.
- Around **three-fifths of Belize is covered by forests**, including species such as **mahogany, cedar and ironwood**.

