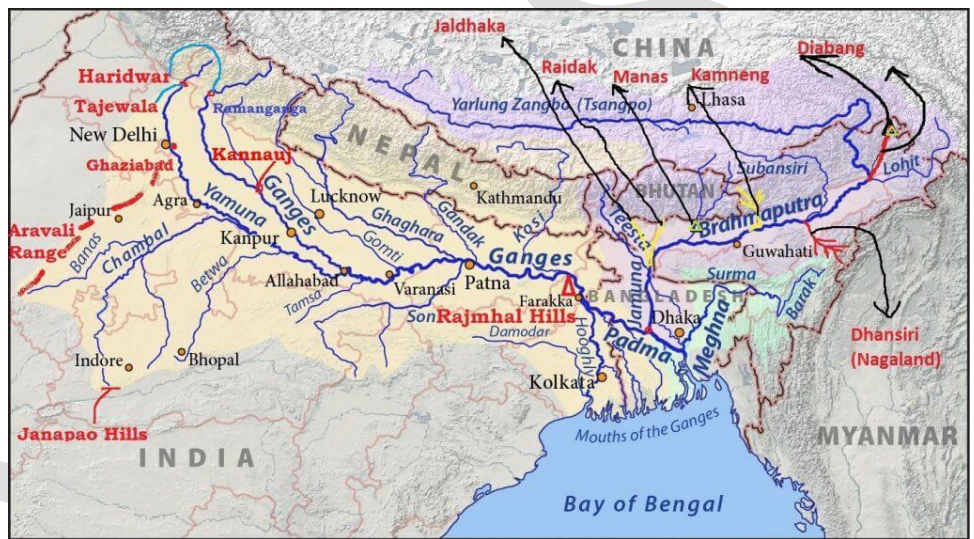


## Weekly Quiz Answers (2<sup>nd</sup>-8<sup>th</sup> Oct)

Ans1. B

### Explanation:

- Ghaghara River is left bank tributary of Ganga River.
- This river originates in the Tibetan Plateau near Lake Manasarovar.
- After passing through the Himalayas in Nepal, it joins the Sharda River in India at Brahma Ghat.
- After a 970-kilometer journey through Uttar Pradesh and Bihar, it enters the Ganges below Chapra.
- The Gogra, Ghaghara, or Ghagra River is also known as the Nepali Kauriala, Manchu, or Karnali.
- However, the river's literal meaning is "Turquoise River" and it is a trans-boundary perennial river.
- It is Nepal's longest river, measuring 507 kilometres in length.
- The Ghaghara River is 1,080 kilometres long from its mouth in Bihar to its confluence with the Ganges at Revelganj.
- It is the Ganges' largest tributary by volume and the Ganges' second-longest tributary by length after the Yamuna.



Ans2. C

### Explanation:

According to Philippe Fargues, migration can be defined as circular if it meets the following criteria —

There is a temporary residence in the destination location,

There is the possibility of multiple entries into the destination country,

There is freedom of movement between the country of origin and the country of destination during the period of residence,

There is a legal right to stay in the destination country,

There is protection of migrants' rights, and if there is a healthy demand for temporary labour in the destination country.

Ans3. A

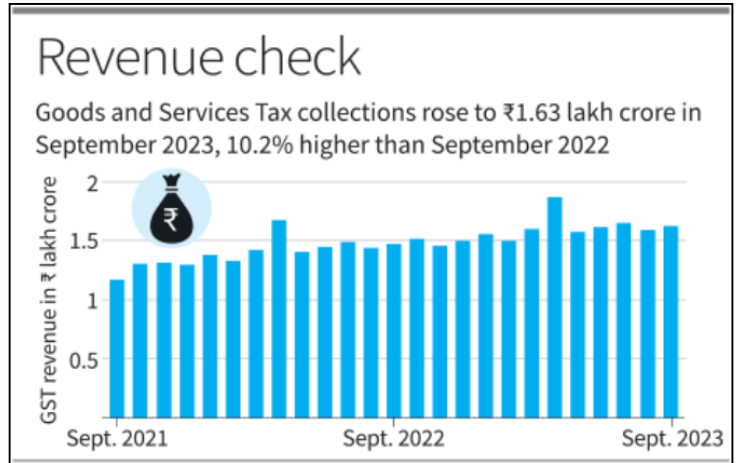
### Explanation:

**Context:** Growth in India's gross Goods and Services Tax (GST) revenues slowed to a 27-month low of 10.2% in September, from around 10.8% in the previous two months. However, collections improved 2.3% over August revenues to touch ₹1,62,712 crore.

- Revenues from domestic transactions, including services imports, were 14% higher than the tax collected from these sources during September 2022.
- This is the fourth time that the gross GST kitty has crossed the ₹1.60 lakh crore mark in 2023-24, the Finance Ministry said.

### Manipur Highest, Bihar Sees Contraction

- Revenues in strife-torn Manipur, which recovered from a contraction in August, recorded the highest growth among States in September, rising 47%.
- GST revenues in Telangana grew 33%, followed by Jammu and Kashmir (32%), Arunachal Pradesh (27%), Tamil Nadu (21%), and Karnataka (20%).
- As many as 17 States recorded revenue growth below the national average of 14%, while 12 States reported 14% or higher growth. States seeing a slower uptick included Gujarat, Uttar Pradesh, Kerala, Haryana, Odisha, and Jharkhand, with Delhi, Meghalaya, and Assam recording the weakest growth of 2%, followed by West Bengal (3%).
- Bihar was the only State to report an actual contraction in GST collections in September, with revenues down 5%.
- The Union Territories of Lakshadweep, and Andaman and Nicobar Islands also clocked a sharp decline in revenues, which fell 45% and 30% year-on-year, respectively.
- By contrast, revenues shot up 81% in the Union territory of Ladakh.



Ans4. B

### Explanation:

- Scientific Name: Platanista gangetica
- The Ganges River Dolphin was officially discovered in 1801.
- Ganges river dolphins live in the Ganges-Brahmaputra-Meghna and Karnaphuli-Sangu river systems of Nepal, India, and Bangladesh.
- The Ganges river dolphin can only live in freshwater and is essentially blind.
- They hunt by emitting ultrasonic sounds, which bounces off of fish and other prey, enabling them to “see” an image in their mind. They are also called ‘susu’.

Ans5. D

### Explanation:

The Kerala Tourism Development Corporation (KTDC) will develop the caravan park and camp shelter at Bekal fort.

- The KTDC has also submitted proposals to set up caravan parks at Ponmudi in Thiruvananthapuram and Bolgatty Palace in Kochi.
- The well-protected fort on a hillock overlooking the Arabian Sea boasts a stunning architecture and lush green environs.

- The caravan park at Bekal will be the first park in the public sector in the State.
- At present, there is only one Caravan Park in the State, run by a private player at Wagamon.

Ans6. A

### Explanation:

**Context:** The Defence Ministry has issued new entitlement rules (ER) for grant of disability pensions to military personnel, tightening some of the provisions and introducing a new ‘impairment relief’ (IR) in lieu of the ‘disability element’ to cover lifestyle diseases such as hypertension and diabetes.

- The development comes after the Comptroller and Auditor General (CAG) asked the Ministry early this year to carry out an analysis of the disability among soldiers based on its report, which said that almost 40% of officers and 18% of personnel below officer rank (PBOR) who retire every year were drawing disability pensions.

### Key Highlights

The ‘Casualty Pension and Disability Compensation Awards to Armed Forces Personnel’ stipulates the conditions for the award of death/disability compensation to military personnel with effect from September 21.

- The new IR is defined as a monthly disability compensation, calculated as a defined percentage of the last reckonable emoluments, awarded to armed forces personnel who are retired or discharged from service voluntarily or otherwise with a disability sustained under circumstances accepted as Category B or C and assessed not less than 20%.

#### The Efficiency Perspective

- The primary aim of these rules is not cost-saving but rather the efficient management of the armed forces cadre.
- The presence of a significant number of individuals in lower medical categories sends an unintended message, and these changes aim to address that issue.

#### Streamlined Assessment and Entitlement

- The revised policy is designed to streamline the assessment and entitlement procedures, reducing ambiguity and the likelihood of litigation.
- This clarity will ensure that military personnel receive the support they need without unnecessary complications.

#### Impairment Relief Concept

- The introduction of impairment relief, a new concept in the rules, has garnered some criticism due to its lack of tax exemption.
- General Chauhan clarified that this change in terminology does not affect the nature of entitlement or the quantum of emoluments.
- It applies to personnel who are not invalidated out due to the nature of their disabilities and continue to serve until the end of their engagement.

Ans7. D

**Explanation:**

### How TB Impacts the Elderly

Interviews with older persons with TB revealed that their TB care journeys were fraught with challenges at every step, resulting in an overall sub-optimal experience.

**Delayed or Missed Diagnosis**

**Complicated TB Management in Elderly**

**Access to Health services**

**Lack of Infrastructure**

**Lack of Nutritious Food**

- **Delayed or Missed Diagnosis:** Symptoms of TB including cough, fatigue and weight loss are mistaken as signs of other diseases or dismissed as signs of old age. The risk of having a TB diagnosis delayed or missed altogether is higher for the elderly compared to other adults.
- **Complicated TB Management in Elderly:** Once diagnosed, management of TB among the elderly is often complicated by multiple comorbidities, particularly diabetes.
  - **At an individual level,** this means a higher pill count and an increased likelihood of side effects.
  - **At a health system level,** this can result in irregular treatment adherence and poor outcomes, including death.
  - Some older people with TB spoke about their lowered ‘will to live’, especially in the absence of social and emotional support systems.
- **Access to Health services:** Older people, and older women in particular, also face specific challenges in accessing health services.
  - For instance, in rural and hilly areas, they struggle to travel to health facilities by themselves.
  - Their access to reliable information on health is also limited — social networks inevitably shrink for the elderly.
- **Lack of Infrastructure:** Older persons also experience infrastructure-related challenges such as lack of adequate seating.
- **Lack of Nutritious Food:** They may not have access to high-quality nutritious food, which is critical for recovery.

All of this is augmented by a loss of economic independence. Most people over the age of 60 are no longer working; they are living off savings or they are completely dependent on families. There are some social welfare schemes for the elderly but these are limited in scope and difficult to access.

Ans8. A

**Explanation:**

### About Bekal Fort

- Bekal Fort is located in **Kasargod district**, Kerala.
- It is the **largest fort in Kerala**.
- It was built in the **17th century** by **Shivappa Nayaka** of the **Keladi dynasty**.
- The fort has seen rise and fall of several dynasties and later came under the control of the **Kingdom of Mysore**.

- **Structure:** The fort appears to emerge from the sea. Almost three-quarters of its exterior is in contact with water.
  - An **important feature of the fort** is the water-tank and the flight of steps leading to an observation tower built by Tipu Sultan.
  - The **fort's zigzag entrance** and surrounding trenches reveal its defensive strategy.
  - **Holes on the outer walls** are designed to defend the fort effectively from naval attacks. The upper holes are meant for aiming at the farthest targets; lower holes below for striking an enemy nearer and the lowest holes to attacking an enemy closest to the fort.
  - The fort's solid construction **resembles** the Thalassery Fort and the St. Angelo Fort at Kannur built by the Dutch.

Ans9. A

**Explanation:**

World Reported Twice as Many Cholera Cases in 2022 as in 2021 says WHO. Most cholera cases continue to be reported from Africa and Asia, with Europe accounting for a few “imported cases”

Cholera	
<b>About</b>	<ul style="list-style-type: none"> <li>• It is a life-threatening infectious disease and a public health hazard.</li> <li>• Cholera is an acute, diarrheal illness caused by infection of the intestine with the bacterium <i>Vibrio cholerae</i>.</li> <li>• The infection is often mild or without symptoms, but sometimes can be severe.</li> </ul>
<b>Symptoms</b>	<ul style="list-style-type: none"> <li>• Profuse watery diarrhoea</li> <li>• Vomiting</li> <li>• Leg cramps</li> </ul>
<b>Transmission</b>	<ul style="list-style-type: none"> <li>• A person may get cholera by drinking water or eating food contaminated with the cholera bacterium.</li> <li>• The disease can spread rapidly in areas with inadequate treatment of sewage and drinking water.</li> </ul>
<b>Vaccine</b>	<ul style="list-style-type: none"> <li>• Currently there are three WHO pre-qualified oral cholera vaccines (OCV), Dukoral, Shanchol, and Euvichol-Plus.</li> <li>• All three vaccines require two doses for full protection.</li> </ul>
<b>Initiatives to Curb Cholera</b>	<ul style="list-style-type: none"> <li>• A global strategy on cholera control, Ending Cholera: a global roadmap to 2030, with a target to reduce cholera deaths by 90% was launched in 2017.</li> <li>• Global Task Force for Cholera Control (GTFCC): WHO revitalized the Global Task Force for Cholera Control (GTFCC) to strengthen WHO's work in eradicating cholera.                     <ul style="list-style-type: none"> <li>○ The purpose of the GTFCC is to support increased implementation of evidence-based strategies to control cholera.</li> </ul> </li> </ul>

Ans10. D

**Explanation:**

The Indian Air Force (IAF) has placed two contracts with Bharat Dynamics Ltd. (BDL) for the indigenous **Astra Beyond Visual Range (BVR) air-to-air Missile** and the first batch is expected to be inducted by the end of the year, according to defence sources.

## Key Highlights

- The Astra is fully integrated on the Su-30MKI.
- In August, it was successfully test fired from the Light Combat Aircraft (LCA) Tejas off the coast of Goa during which the missile was released from the aircraft at an altitude of about 20,000 ft.
- The IAF plans to arm its frontline fighters with the Astra-MK1 and officials have said that the Astra-2 would become the mainstay of the IAF's BVR missile arsenal, reducing import dependency.
- In May 2022, the Defence Ministry signed a contract with BDL for supply of Astra Mk-I missiles and associated equipment for the IAF and the Navy at a cost of ₹2,971 crore.



## Astra Missiles

Astra is an Indian family of all-weather beyond-visual-range air-to-air missile, developed by the Defence Research and Development Organisation.

- Different missiles of this family are capable of engaging targets at varying distances of 500 m up to 340 km.

Ans11. B

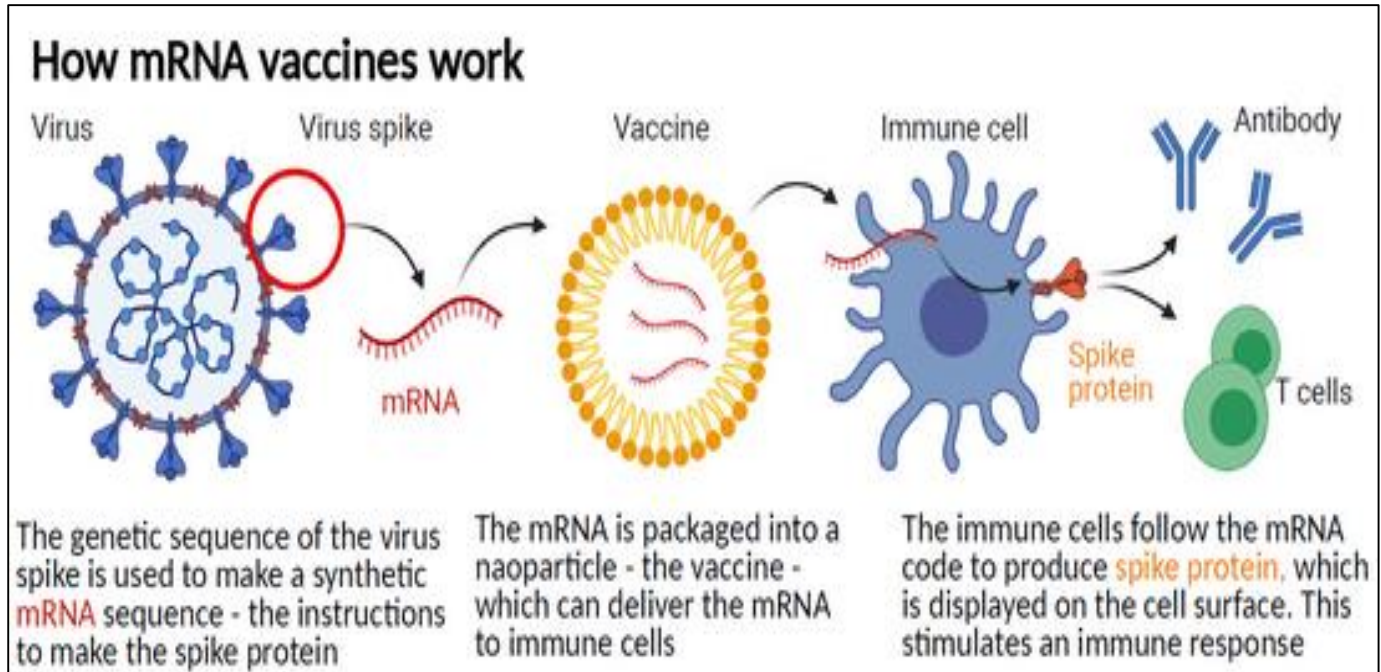
## Explanation:

The 2023 Nobel Prize in Physiology or Medicine has been awarded to Hungarian biochemist Katalin Karikó and American physician-scientist Drew Weissman. Announcing the names, the Royal Swedish Academy of Science said they had been feted for “discoveries concerning nucleoside base modification that enabled the development of effective mRNA vaccines against COVID-19”. Dr. Karikó is only the 13th woman to win the prize.

## Key Highlights

- mRNA stands for messenger RNA, a type of molecule that carries instructions from the DNA to a cell's cytoplasm, where those messages are 'read' to produce various proteins.
- In the late 1980s, scientists realised that mRNA could become the basis for a new kind of vaccines if some hurdles could be overcome.
- The idea was to inject the body with a modified mRNA that would instruct cells to build a certain protein, which could then provoke the body's immune system to 'attack' it as well as prepare itself to encounters with the same protein in future.

- This protein could be something produced by a virus — such as the spike protein of SARS-CoV-2. But the mRNA would have to survive its journey inside the body and be able to enter a cell.



#### Advantages of mRNA Based Vaccines

- mRNA vaccines are considered safe as mRNA is non-infectious, non-integrating in nature, and degraded by standard cellular mechanisms.
- They are highly efficacious because of their inherent capability of being translatable into the protein structure inside the cell cytoplasm.
- Additionally, mRNA vaccines are fully synthetic and do not require a host for growth, e.g., eggs or bacteria. Therefore, they can be quickly manufactured inexpensively to ensure their "availability" and "accessibility" for mass vaccination on a sustainable basis.

Ans12. A

#### Explanation:

#### Status of Ganges River Dolphin

- Schedule 1 of the Indian Wildlife (Protection) Act 1972
- Appendix 1 of the Convention on International Trade in Endangered Species (CITES)
- Appendix 1 of the Convention on Migratory Species (CMS)
- Endangered on the IUCN Red List

Ans13. D

#### Explanation:

In India, internal migration, which is migration within a particular country or State, has almost always been circular. With rapid industrialisation, there has been a huge flow of migrants from rural areas to urban cities.

- Circular migration is a **repetitive form of migration** wherein people move to another place (the destination country) and back (country of origin) according to the availability of employment.
  - This effectively means that instead of migrating permanently or temporarily (moving for a period of time to complete any contract-based labour) to another location, people move to different locations for a brief period of time when work is available.
  - It is a phenomenon mostly among low-income groups who migrate to avail of seasonally available jobs in another country, city, place etc.
- ✓ Circular migration became quite popular in the 60s and 70s with the advent of globalisation and development.
  - ✓ Increased access to modern forms of transport and communication, social networks and the growth of multinational corporations have aided the advent of circular migration.
  - ✓ However, only recently has the phenomenon been given its due as the seasonal movement of migrants was not properly documented or was boxed along with short-term or temporary migration

Ans14. D

### **Explanation:**

Tuberculosis (TB) is a bacterial infection spread through inhaling tiny droplets from the coughs or sneezes of an infected person. It mainly affects the lungs, but it can affect any part of the body, including the abdomen, glands, bones and nervous system. TB is a potentially serious condition, but it can be cured if it's treated with the right antibiotics.

### **Symptoms of TB**

- Persistent cough that lasts more than 3 weeks and usually brings up phlegm, which may be bloody,
- Weight loss,
- Night sweats,
- High temperature,
- Tiredness and fatigue,
- Loss of appetite,
- Swellings in the neck.

### **Latent TB**

- Sometimes the immune system cannot kill the bacteria, but manages to prevent it spreading in the body.
- You will not have any symptoms, but the bacteria will remain in your body. This is known as latent TB.
- People with latent TB are not infectious to others.

### **Active TB**

- If the immune system fails to kill or contain the infection, it can spread within the lungs or other parts of the body and symptoms will develop within a few weeks or months. This is known as active TB.



- About one-quarter of the world’s population is estimated to be infected by TB bacteria but out of these only 5-15% of people will fall ill with active TB disease.
- Latent TB could develop into an active TB disease at a later date, particularly if your immune system becomes weakened.

Ans15. C

**Explanation:**

World Reported Twice as Many Cholera Cases in 2022 as in 2021 says WHO. Most cholera cases continue to be reported from Africa and Asia, with Europe accounting for a few “imported cases”

**Map 3** | The map shows the country-wise reported cholera deaths and imported cases in 2022

