



### **Daily Current Affairs Prelims Quiz 16-07-2024 (Online Prelims Test)**

1) Tizu River, sometimes seen in the news recently, is the second longest River of?

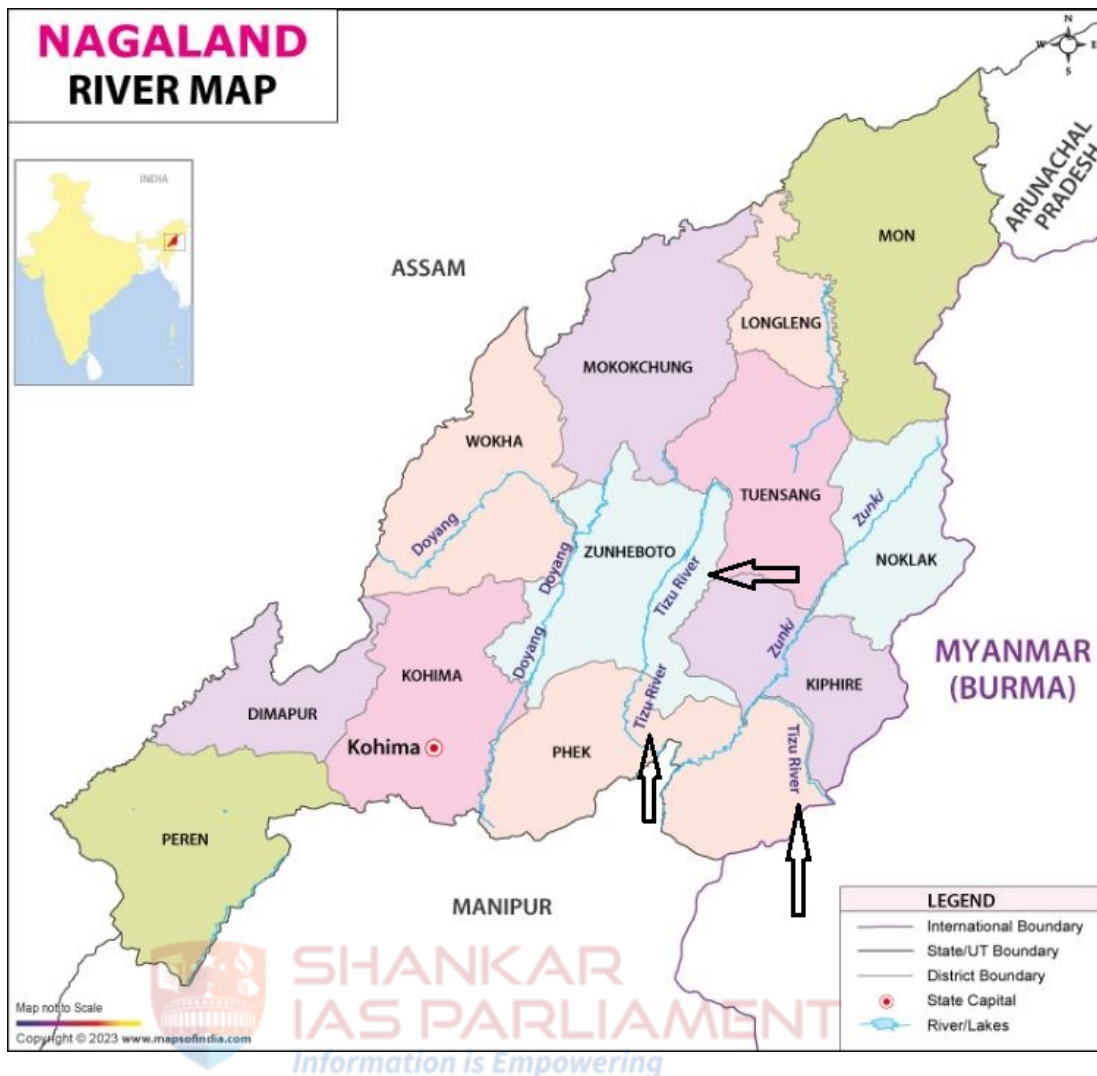
- a. Nagaland
- b. Uttarakhand
- c. Jharkhand
- d. Telangana

Answer : a

#### **Tizu River**

*Recently the Union Minister of Ports, Shipping & Waterways has announced on the development of Tizu Zunki (National Waterways 101).*

- The Tizu River originated from the central part of Nagaland and flows in northeast direction through Zunheboto district, Phek district and **finally flows into Chindwin River of Myanmar (Burma)**.
- The main tributaries of Tizu River are river Zunki, Laneye and Likimro.
- It is the **second largest and longest rivers of Nagaland** roughly covers one-third area of the state and is located within the innermost high mountain range bordering Myanmar.
- The **Zunki River which is the biggest tributary of Tizu River**.
- It starts from the north-eastern part of Changdong forest in the south of Teku and flows in southerly direction towards Noklak, Shamator and Kiphire and finally joins Tizu below Kiphire.
- **Doyang River is the longest and biggest river in Nagaland**.
- The major rivers of Nagaland are Doyang, Dikhu, Dhansiri, Tizu, Milak, Dzu, Langlong, Zungki, LiKimro, Laneye and Dzuza.



2) Consider the following statements with respect to Translational Health Science and Technology Institute (THSTI)

1. It serves as a catalyst for translating fundamental discoveries by building robust clinical research capacity.
2. THSTI is an Institute of Council of Scientific and Industrial Research (CSIR).
3. The Secretary to the Department of Biotechnology is the Ex-Officio Chairperson of the governing body of it.

How many of the statements given above are correct?

- a. Only one
- b. Only two
- c. All Three
- d. None of the above

Answer : b

### **Translational Health Science and Technology Institute (THSTI)**

*THSTI recently hosted the industry meet, SYNCHN 2024 - Synergy in science built through elements of collaboration for high quality data & expertise in NCR Biotech Cluster.*

- THSTI acts as a catalyst to translate fundamental discoveries by building rigorous clinical research capacity and enabling a faster transition of discoveries from bench to bedside.

- It is housed within the NCR Biotech Science Cluster in Faridabad.
- The institute has 4 core facilities:
  1. Small Animal Facility
  2. Data Management Centre
  3. Biorepository
  4. Bioassay Laboratory
- Bioassay Laboratory serves as the research programs of THSTI but also the NCR Biotech Science Cluster and other academic and industrial partners.
- **THSTI is an institute of Biotechnology Research and Innovation Council (BRIC),** Department of Biotechnology.
- **Governing body** - The **Secretary to the Department of Biotechnology, Ministry of Science & Technology is the Ex-Officio Chairperson of it.**
- **SYNCHN 2024** - It was recently hosted by the Translational Health Science and Technology Institute (THSTI).
- SYNCHN (Synergy in science built through elements of collaboration for high quality data & expertise in NCR Biotech Cluster).
- SYNCHN 2024 had focused parallel breakout sessions, fostering one-on-one interactions between industry representatives and THSTI's principal investigators.
- Delegates also had a tour of THSTI's research laboratories and facilities during their interactions at THSTI.
- The industry representatives also interacted with young researchers at THSTI and provided valuable insights into industry expectations for doctoral graduates.

3) Consider the following statements with respect to Electroencephalography (EEG)

1. It is a painless medical test that measures the electrical activity of the brain generated by neurons using electrodes attached to the scalp.
2. Hans Berger is credited with inventing the EEG.
3. It is the best test available to diagnose epilepsy.

How many of the statements given above are correct?

- a. Only one
- b. Only two
- c. All Three
- d. None of the above

Answer : c

## Electroencephalography (EEG)

- Electroencephalography, commonly known as EEG, is a vital diagnostic technique that has revolutionized our understanding of the human brain and nervous system.
- It is relatively simple, cost-effective and better than other diagnostic devices at tracking relatively rapid electrical activity in the brain, in the order of milliseconds.
- **Historical Context** - The development of EEG spans over a century, marking a significant milestone in medical history.
- In 1875, the British physician Richard Caton reported electrical activity in animal brains.
- In 1912, **Vladimir Pravdich-Neminsky** produced the first mammalian EEG (on a dog).
- In 1924, German physiologist **Hans Berger recorded the first human EEG, earning him the title of the inventor of EEG.**
- **Scientific Principle** - EEG measures electrical activity generated by neurons in the brain.
- **It is a painless medical test that measures the electrical activity of the brain generated by neurons using electrodes attached to the scalp.**
- This activity is detected through electrodes placed on the scalp, which record voltage fluctuations.

- The **principle** involves:
  - **Volume conduction** - The movement of electrical activity through various tissues before reaching the electrodes.
  - **Signal processing** - Raw data is corrected for noise and other interferences.
- **Clinical Applications** - EEG has wide-ranging applications in medical diagnosis and research:
  - **Epilepsy diagnosis** (gold standard)
  - Sleep disorder studies
  - Monitoring brain activity during coma
  - Confirming brain death
  - Anaesthesia depth assessment
- It has Research Applications in Neuroscience studies, Cognitive psychology, Brain-computer interfaces and Neuro-marketing.
- **Advantages of EEG**
  - Non-invasive
  - Cost-effective compared to other neuroimaging techniques
  - Excellent temporal resolution (millisecond range)
  - Portable
  - No radiation exposure
- **Limitations**
  - Poor spatial resolution
  - Difficulty in detecting deep brain activity
  - Time-consuming setup
  - Susceptible to external interferences

4) Consider the following statements with respect to Beej Utsavs

1. It is a popular movement to preserve indigenous seed varieties that are on the verge of extinction.
2. It is organised by the Ministry of Tribal Affairs.
3. It was held at tribal-dominated regions of Odisha.

How many of the statements given above are correct?

- a. Only one
- b. Only two
- c. All Three
- d. None of the above

Answer : a

## **Beej Utsavs**

*The Beej Utsavs or seed festival which saw the participation from about 1,000 villages and hamlets in the tribal belt at the tri-junction of Rajasthan, Madhya Pradesh, and Gujarat was held at last week of June.*

- Beej Utsavs or seed festival is a popular movement to preserve indigenous seed varieties that are on the verge of extinction in the tribal-dominated regions of southern **Rajasthan**.
- Beej Utsavs helps to promote not just crop diversity but also climate resilience.
- Thousands of tribal people, from about 1,000 villages and hamlets in the tribal belt at the tri-junction of Rajasthan, Madhya Pradesh, and Gujarat, took part in a series of Beej Utsavs.
- About 90 such events were held, giving participants a chance to learn the techniques of preserving indigenous seeds for use in different crop seasons.

- The seed festivals, which witnessed massive **participation from women tribal farmers**, exhibited traditional seeds and held interactive sessions on their properties and significance.
- The tribals were encouraged to protect their rich heritage of biodiversity through farm practices handed down through several generations.
- Over **50 indigenous seed varieties** were displayed at the Beej Utsav events, catalogued as grains, pulses, vegetables, and other plants.
- Those farmers who have diligently worked to preserve seeds in their respective areas were honoured as '**Beej Mitra**' and '**Beej Mata**'.
- **It is not organised by the Ministry of Tribal Affairs.**
- **VAAGDHARA**, which works on tribal livelihood issues, was the **main organiser of the Beej Utsav events.**
- They were facilitated by other tribal rights groups, such as Krishi Evum Adivasi Swaraj Sangathan, Gram Swaraj Samooh, Saksham Samooh, and Baal Swaraj.
- **VAAGDHARA** is a non-profit organization, registered under Rajasthan Societies Registration Act, 1958.

5) Consider the following statements with respect to Centre for the Study of Developing Societies (CSDS)

1. It was constituted as a society in 1963, funded largely by the Indian Council of Social Science Research.
2. CSDS is an autonomous social science research institute.
3. Since 1997, it has been conducting survey-based studies through its research programme, Lokniti.

How many of the statements given above are **incorrect**?

- a. Only one
- b. Only two
- c. All Three
- d. None of the above



Answer : d

## Centre for the Study of Developing Societies (CSDS)

*The CSDS-Lokniti survey has recently highlight a broad spectrum of opinions regarding EVMs, the ECI and electoral accessibility in India.*

- Centre for the Study of Developing Societies (CSDS) is an autonomous social science research institute.
- It was constituted as a society in **1963, founded by political scientist Rajni Kothari**, funded largely by the **Indian Council of Social Science Research.**
- It was one of the first Indian organisations to venture into the field of election studies and surveys long before they became the norm in India.
- It conducted its **first survey-based research of an election in 1965.**
- **Since 1997, CSDS has been conducting survey-based studies through its research programme, Lokniti.**
- **Lokniti Programme for Comparative Democracy** – Was established in 1997 as a research programme of the Centre for the Study of Developing Societies (CSDS).
- The Lokniti programme of the Centre for the Study of Developing Societies (CSDS) conducted both pre-poll and post-poll surveys during the 18 Lok Sabha elections, which offer valuable insights.
- **Key findings of the survey** – 45% of respondents believed EVMs could be manipulated by the ruling party.
- 16.7% of respondents expressed complete distrust in EVMs.
- This is a marked increase in distrust compared to the post-poll survey conducted in 2019, where only 5.8% of respondents had such concerns.

- The post-poll survey also revealed that 30% of respondents felt that ***trust in EVMs had decreased over the past five years***, with this sentiment being particularly strong among minorities such as Sikhs, Muslims and Christians, as well as in the urban population.
- 22.2% either expressed little or no trust in the commission.
- This lack of faith was particularly notable among minority communities.
- Comparatively, this ***level of distrust has almost doubled since the 2019 Lok Sabha elections***, where only 11.6% of respondents indicated little or no trust in the ECI.

