



## Daily Current Affairs Prelims Quiz 05-04-2024 (Online Prelims Test)

1) Consider the following statements:

1. Artificial Sun is a nuclear reactor that works on the principal of nuclear fission.
2. China's Advanced Superconducting Tokamak (EAST) is the world's biggest tokamak.
3. India is one of the funding members of the International Thermonuclear Experimental Reactor (ITER).

How many of the above statement(s) is/are **incorrect**?

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

Answer : b

### Artificial Sun



**SHANKAR**  
**IAS PARLIAMENT**

*Korean Fusion Reactor 'Artificial Sun' sets record for sustaining plasma at 100 million Degree Celsius.*

- **KSTAR** - South Korean scientists have set a new world record using the Korea Superconducting Tokamak Advanced Research (KSTAR) device, an artificial Sun nuclear fusion reactor.
- **48 Seconds** - The team generated plasma temperatures of 100 million degrees Celsius for 48 seconds (30 seconds in 2021) during tests between December 2023 and February 2024.
- This temperature is seven times that of the Sun's core, which is 15 million degrees Celsius.
- **Aim** - KSTAR aims to sustain plasma temperatures of 100 million degrees Celsius for 300 seconds by 2026.
- **Tokamak** - Common way of achieving fusion energy involves a doughnut-shaped reactor called a tokamak in which hydrogen variants are heated to extraordinarily high temperatures to create plasma.
- The activities of KSTAR will feed into the development of the International Thermonuclear Experimental Reactor (ITER) in Southern France.
- **ITER** - ITER is the world's biggest tokamak which aims to prove the feasibility of fusion.
- It will not produce any electricity; instead, ITER will resolve the critical scientific and technical issues to take fusion to the point where industrial applications can be envisioned.
- **Funds** - ITER is funded and run by seven member parties, China, the European Union, India, Japan, Russia, South Korea and the United States.
- **India** - India became a full partner of the ITER Project in 2005.
- ITER is intended to advance India's own nuclear fusion programmes and research.
- The Institute for Plasma Research (IPR), a dedicated research institute under the Department of Atomic Energy, supervises the ITER-India as well as India's two tokamaks, ADITYA-U and SST-1.

- China's artificial Sun, the [Experimental Advanced Superconducting Tokamak \(EAST\)](#) reactor is an advanced nuclear fusion experimental research device.

2) Consider the following statements with respect to the FASTag:

1. FASTag works on the principle of Radio Frequency Identification Card (RFID).
2. The system operates on the lines of a prepaid phone card.
3. The One Vehicle, One FASTag aims to deter the practice of using a single FASTag for multiple vehicles.

How many of the above statement(s) is/are correct?

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

Answer : c

### **One Vehicle, One FASTag**

*The National Highways Authority of India (NHAI) has rolled out the 'One Vehicle, One FASTag' scheme.*

- FASTag is an electronic toll collection system in India, operated by the National Highways Authority of India (NHAI).
- The fast tag (FASTag) are a Radio Frequency Identification Card (RFID) pasted to the windscreen of the vehicle.
- The system operates on the lines of a prepaid phone card, which enables electronic payment at tolls on national highways.
- The 'One Vehicle, One FASTag' concept aims to deter the practice of using a single [FASTag](#) for multiple vehicles or associating multiple FASTags with one vehicle.

3) Consider the following statements with respect to the allocation of election symbols:

1. Symbols are allotted to political parties as per the provisions of the Symbols Order by ECI.
2. The candidates of recognised parties enjoy the advantage of being listed at the top of the ballot in the Electronic Voting Machine.

Which of the above given statement(s) is/are correct?

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

Answer : c

### **Allocation of Election Symbols**

*The Naam Tamilar Katchi has been allotted a new common symbol and the Viduthalai Chiruthaigal Katchi has been denied a common symbol, raising questions on allotment of symbols to registered unrecognised political parties (RUPPs).*

- A party is recognised as a 'national' or 'state' party under the provisions of the [Election Symbols](#) (Reservation and Allotment) Order, 1968 (Symbols Order) by the Election

Commission of India (ECI).

- **Criteria** - The criteria for recognition at the State level consists of:
  1. Winning one Lok Sabha seat for every 25 seats or 3% of Legislative Assembly seats (or)
  2. Winning one Lok Sabha or two Assembly seats along with 6% of votes polled (or)
  3. Securing 8% of votes polled in a general election.
- **Symbols Order** - Symbols are allotted to political parties and contesting candidates as per the provisions of the Symbols Order by ECI.
- **Recognised Party** - A recognised [political party](#) has a reserved symbol that is not allotted to any other candidate in any constituency.
- **RUPPs** - RUPPs are either newly-registered parties or those which:
  1. Have not secured enough percentage of votes in the Assembly or general election to become a State party
  2. Those that have never contested elections after being registered.
- **Free Symbols** - For RUPPs, one of the free symbols is allotted as a common symbol during an election if that party contests in two Lok Sabha constituencies or in 5% of seats to the Assembly of a State as the case may be.
- **Rule 10B** - Rule 10B of the [Symbols Order](#) provides that the concession of a common free symbol shall be available to a 'registered unrecognised party' for two general elections.
- **Common Symbol** - A party shall be eligible for a common symbol in any subsequent general election if it had secured at least 1% of votes polled in the State on the previous occasion when the party availed of this facility.
- Common symbols are provided to RUPPs based upon an undertaking that they would put up at least 5% of total candidates with regard to said Legislative Assembly election of a State.
- Such an unrecognised party should however apply for a symbol every time in the prescribed format.
- This application can be made any time during the period commencing six months prior to the expiry of the term of the Lok Sabha or State Assembly as the case may be.
- **First-Come-First-Served** - The symbols are thereafter allotted on a 'first-come-first-served' basis.
- The candidates set up by recognised parties enjoy the advantage of being listed at the top of the ballot in the Electronic Voting Machine.

4) The Quds Force, recently seen in news, is from which of the following countries?

- a. Iran
- b. Iraq
- c. Yemen
- d. Syria

Answer : a

## Quds Force

*Israeli war jets attacked an Iranian consulate building in Damascus, Syria, killing at least 13 people, including General Mohammad Reza Zahedi, who was a senior leader of the Iranian Quds Force.*

- **IRCG** - The Quds Force is the paramilitary and intelligence wing of the [Iranian Revolutionary Guard Corps \(IRCG\)](#).
- **Islamic Revolution** - The IRCG was set up by the leader of the Islamic Revolution and Iran's first Supreme Leader, Ayatollah Ruhollah Khomeini, in 1979.
- After the 1979 Islamic Revolution dislodged the ruling Shah from power, a theocratic state was established in Iran.
- For its protection, the [IRCG](#) was created to deal with both domestic and external threats.

- **Parallel Force** - IRGC remains a force parallel to that of Iran's regular armed forces.
- It has army, naval, and air force wings, and its total membership numbers around 125,000.
- In 2019, the United States designated the IRGC (and the Quds Force as part of it) a terrorist organisation.
- **Role** - The Quds forces are a specialized unit within the [IRGC](#) responsible for carrying out unconventional warfare and extraterritorial operations.
- The IRGC is also involved particularly in supporting proxy groups and conducting intelligence activities abroad.

5) Consider the following statements with respect to the Ring of Fire:

1. It is a string of hundreds of active volcanoes and frequent earthquakes.
2. The Ring of Fire is located across all continents of the Earth.
3. Circum Pacific Belt is the other name of Ring of fire.

How many of the above statement(s) is/are correct?

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

Answer : b

## Ring of Fire

*Taiwan is prone to earthquakes as it lies along the Pacific Ring of Fire, where 90% of the world's earthquakes take place*

- **Circum-Pacific Belt** - The [Ring of Fire](#) is also referred to as the Circum-Pacific Belt.
- It is a path along the Pacific Ocean characterized by a string of hundreds of active volcanoes and frequent earthquakes.
- It is a semicircle or horse shoe in shape and stretches nearly 40,250 kilometres.
- The majority of [Earth's volcanoes](#) and earthquakes take place along the Ring of Fire.
- It traces boundaries between several tectonic plates, including the Pacific, Juan de Fuca, Cocos, Indian-Australian, Nazca, North American, and Philippine Plates.
- **Reasons for predominant volcanoes** - Along much of the [Ring of Fire](#), plates overlap at convergent boundaries called subduction zones.
- That is, the plate that is underneath is pushed down, or subducted, by the plate above.
- As rock is subducted, it melts and becomes magma.
- The abundance of magma so near to Earth's surface gives rise to conditions ripe for volcanic activity.
- A significant exception is the border between the Pacific and North American Plates.
- This stretch of the Ring of Fire is a transform boundary, where plates move sideways past one another.
- This type of boundary generates a large number of earthquakes as tension in Earth's crust builds up and is released.
- **Countries** - The Pacific Ring of Fire runs through countries including the USA, Indonesia, Mexico, Japan, Canada, Guatemala, Russia, Bolivia, Ecuador, Chile, Peru, Costa Rica, Philippines, New Zealand, Australia, and Papua New Guinea.

