



Daily Current Affairs Prelims Quiz 02-07-2024 (Online Prelims Test)

1) Consider the following pairs:

<i>Prehistoric Sites</i>	<i>Relevance</i>
1. Ratnagiri	- Rock arts carved on flat stones
2. Kethavaram	- Cave Paintings
3. Gudahandi	- Musical Instruments
4. Burzahom	- Pit-dwelling

How many of the pair(s) given above is/are correctly matched?

- a. Only one
- b. Only two
- c. Only three
- d. All four

Answer : d



Prehistoric Sites

- The prehistoric cultures are cultures that used **stone tools** to forage and hunt for food.
- Agriculture in this part of the world began about 10,000 years ago (8000 BC) in a few sites in Balochistan's Mehrgarh.
- Prehistoric cultures continued to thrive in much of India between 10,000 BC and 1000 BC, when the Iron Age began.
- **Protohistory** is the period between prehistory and history and refers to the people who didn't develop writing but were mentioned in the written records of a contemporary group.
- Most prehistoric sites appear after the end of the Ice Age 12,000 years ago.
- There are **stone tools found in Attirampakkam site near Chennai**, dating back to over 1 million years ago.
- **Timeframes**
- **Prehistoric period** - Generally before 1000 BC.
- **Cave paintings** - 10,000 BC to 1,000 BC.
- **Beginning of agriculture** - Around 8000 BC in Balochistan's Mehrgarh.
- **Harappan civilization** - 2500-1900 BC.
- **Vedic period** - 1500-500 BC.

Prehistoric sites	Relevance
Bhimbetka & Kethavaram , Andhra Pradesh.	Earliest cave paintings (10,000 BC to 1,000 BC)
Gudahandi (Kalahandi district, Odisha).	Earliest musical instruments may be lithophones or musical instruments.

Baghor , situated on the banks of the Son river, Madhya Pradesh.	Earliest sacred icon of a goddess which are probably the triangular colourful stone with yellow pigment.
Ratnagiri, Maharashtra	Earliest rock arts carved on flat stones.
Burzahom, Kashmir	Pit-dwelling (holes covered with branches to provide shelter), sites dated back to 4000 BC.

Consider the following statements:

1. Article 31C was introduced in the Constitution by 25th Amendment Act, 1971.
2. The position of Leader of Opposition is officially described in Representation of the People Act, 1951.

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

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

Answer : a

Leaders of Opposition

- It is a statutory post officially described in the Salary and Allowances of **Leaders of Opposition in Parliament Act, 1977**. It is **not mentioned in the constitution**.
- The leader of the numerically biggest party in opposition to the government and recognized as such by the speaker/chairman.
- To be qualified as a Leader of Opposition, a party must have at least 10% of MPs in the House.
- The main duty of the Leader of Opposition is to serve as the voice of the opposition in the House.

Article 31C

- Article 31C protects laws enacted to ensure the “material resources of the community” are distributed to serve the common good (Article 39(b)) and that wealth and the means of production are not “concentrated” to the “common detriment” (Article 39(c)).
- As per Article 31C, these particular directive principles (Articles 39(b) and 39(c)) cannot be challenged by invoking the right to equality (Article 14) or the rights under Article 19.
- **Article 31C was introduced by the Constitution 25th Amendment Act, 1971.**

3) Consider the following statements with respect to Top Quark

1. It is lighter than a water molecule.
2. It's the most massive subatomic particle.
3. It is unstable and decay extremely quickly.

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

Top Quark

Scientists at the Large Hadron Collider (LHC) have recently reported the most precise measurement of the top quark's mass to date.

- The top quark is also known as the t quark (symbol: t) or **truth quark**, is an **elementary particle** and a fundamental constituent of matter.
- To know about Quarks, [click here](#) .
- It is **10-times heavier than a water molecule**, about three-times as much as a copper atom, and 95% as much as a full caffeine molecule.
- **Mass** - It is the **most massive subatomic particle** known to date. The most precise measurement puts its mass at $172.52 \text{ GeV}/c^2$.
- **Instability** - It is **extremely unstable**, existing for less than 10^{-25} seconds before **decaying quickly into lighter particles**.
- **Higgs field interaction** - It interacts most strongly with the Higgs field compared to other particles, which is why it has such a large mass.
- **Discovery** - It was **first discovered in 1995** at the Tevatron particle accelerator in the United States.
- **Significance** - Its mass is of great importance in particle physics and cosmology as it provides insights into the Higgs boson, the stability of the universe, and potentially undiscovered particles.
- **Measurement** - Due to its **extremely short lifetime**, its properties must be reconstructed from its decay products in particle collider experiments.

4) Satellite Optimus, sometimes seen in the news recently, is built by?

- a. India-based AgniKul Cosmos
- b. Australia-based Space Machines Company
- c. USA-based Sierra Nevada Corporation
- d. Japan-based Space One

Answer : b

Satellite Optimus

ISRO's commercial arm, NewSpace India Limited, has announced its first dedicated commercial launch using the Small Satellite Launch Vehicle (SSLV), which will put into orbit the Optimus satellite.

- ISRO's commercial arm, NewSpace India Limited (NSIL), has announced its first dedicated commercial launch using the Small Satellite Launch Vehicle (SSLV).
- The payload will be the **Optimus satellite, built by Australia-based Space Machines Company**.
- Optimus weighs 450 kg, making it the largest Australian-designed and built spacecraft so far.
- The launch is scheduled for 2026.
- This mission is named **Space MAITRI** (Mission for Australia-India's Technology, Research and Innovation).
- This mission marks a significant collaboration between India and Australia in the space sector.
- **The mission aims to focus on debris management and sustainable space operations.**
- This will be the **first dedicated commercial launch for SSLV**.
- Previously, SSLV-D2 carried a commercial payload (Janus-1), but it wasn't a dedicated commercial mission.

5) Consider the following statements with respect to Project Nexus

1. It aids to enhance cross-border payments by connecting multiple domestic instant payment systems (IPS) globally.
2. It is a multilateral international initiative conceptualized by the International Monetary Fund (IMF).
3. The Reserve Bank of India has joined Project Nexus along with central banks of four ASEAN countries.

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

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

Answer : a

Project Nexus

The Reserve Bank of India (RBI) has officially joined Project Nexus, a major step for India's involvement in international financial integration.

- Project Nexus is a **multilateral initiative** aimed at transforming the landscape of international financial transactions.
- It is **conceptualized by the Innovation Hub of the Bank for International Settlements (BIS)**.
- **Key Features of the project**
- **Purpose** - Project Nexus seeks to enable instant cross-border retail payments by **interlinking domestic Fast Payment Systems (FPSs) of multiple countries** like UPI.
- **Participating Countries** - The founding members include India, Malaysia, the Philippines, Singapore and Thailand.
- Indonesia is expected to join in the future.
- **The Reserve Bank of India (RBI)** - Has **signed up for Project Nexus**, integrating India's Unified Payments Interface (UPI) with the FPSs of participating ASEAN countries.
- **RBI has joined Project Nexus along with central banks of four ASEAN countries (Malaysia, Philippines, Singapore and Thailand)**.
- **Technological Framework** - The project aims to standardize the way Instant Payment Systems (IPS) connect, allowing a single connection to reach all countries on the network.
- **Speed and Efficiency** - Project Nexus targets completing most cross-border transactions within 60 seconds.
- **Implementation Status** - It is the **first BIS Innovation Hub project in the payments area** moving towards live implementation.
- **Significance of the project**
- **Global Financial Integration** - Enhances connectivity between different national payment systems, promoting smoother international transactions.
- **Economic Boost** - Facilitates easier cross-border trade and remittances, potentially stimulating economic activities.
- **Technological Advancement** - Demonstrates the application of cutting-edge financial technology in solving real-world problems.
- **Diplomatic Relations** - Strengthens financial ties between India and ASEAN countries, aligning with India's 'Act East' policy.
- **Financial Inclusion** - Could potentially make international transactions more accessible and affordable for the general public.
- **Bank for International Settlements (BIS)**

- It was **established in 1930** and **owned by 63 central banks**, representing about 95% of world GDP.
- **Headquartered in Basel, Switzerland**, with offices in Hong Kong SAR and Mexico City.
- **Mission** - To support central banks in pursuing monetary and financial stability through international cooperation.
- The BIS has four main departments, which are:
 1. Monetary and Economic Department
 2. Banking Department
 3. BIS Innovation Hub
 4. General Secretariat
- **The BIS Innovation Hub** identifies and develops in-depth insights into critical trends in financial technology of relevance to central banks,
- The hub explores the development of public goods to enhance the functioning of the global financial system and serves as a focal point for a network of central bank experts on innovation.

