

**1. The New Strategic Arms Reduction Treaty (New START) was signed between which of the countries?**

- A. India and China
- B. India and Pakistan
- C. The U.S. and Russia
- D. Israel and Saudi Arabia

Answer: **C**

**Explanation:**

- The New Strategic Arms Reduction Treaty (New START) was signed in 2010 by **Russia and the United States** and entered into force in 2011.
- New START replaced the 1991 START I treaty, which expired in 2009, and superseded the 2002 Strategic Offensive Reductions Treaty (SORT).
- New START caps the deployed strategic nuclear warheads and bombs of the United States at Russia at 1,550 each. The Treaty includes limits on missiles, bombers, and land-based launchers for nuclear weapons.
- The Treaty also allows for verification inspections and information-sharing.
- The New Start Treaty is **due to expire next February**.

<https://www.thehindu.com/news/national/india-china-expanded-nuclear-stockpile-in-last-one-year-report/article31833890.ece>

**2. With reference to the Wholesale Price Index, consider the following statements**

1. It measures and tracks the changes in the price of goods and services in the stages before the retail level.
2. WPI is used as deflator for many sectors of the economy.

**Which of the statements given above is/are correct?**

- A. 1 only
- B. 2 only
- C. Both 1 and 2
- D. Neither 1 nor 2

Answer: **B**

**Explanation:**

- **Statement 1 is incorrect:** WPI measures and tracks the changes in the price of goods in the stages before the retail level. It provides estimates of inflation at the wholesale transaction level for the economy as a whole. **WPI does not cover services.**

- Manufactured products, Primary Articles and Fuel and Power are components of the Wholesale Price Index.
- It is released by the Office of Economic Adviser, Department for Promotion of Industry and Internal Trade, Ministry of Commerce and Industry.
- The base year is 2011-2012.
- **Statement 2 is correct:** WPI is used as deflator for many sectors of the economy including for estimating GDP by the Central Statistical Organisation (CSO).

<https://www.thehindu.com/business/Economy/wpi-inflation-falls-321-in-may-but-food-prices-rise/article31831730.ece>

### 3. Consider the following statements about the Sovereign wealth funds.

1. A sovereign wealth fund is a state-owned investment fund or entity which comprises pools of money derived from a country's reserves.
2. National Investment and Infrastructure Fund is India's only Sovereign wealth fund.

Which of the statements given above is/are correct?

- A. 1 only
- B. 2 only
- C. Both 1 and 2
- D. Neither 1 nor 2

Answer: C

**Explanation:**

- **Statement 1 is correct:** A sovereign wealth fund is a state-owned investment fund or entity which comprises pools of money derived from a country's reserves.
- **Statement 2 is correct: National Investment and Infrastructure Fund (NIIF)** - National Investment and Infrastructure Fund is India's only Sovereign wealth fund.

**About NIIF**

- National Investment and Infrastructure Fund, is an Indian-government backed entity established to provide long-term capital to the country's infrastructure sector.
- The Indian government has 49 per cent stake in NIIF with the rest held by foreign and domestic investors.
- NIIF is envisaged as a fund of funds with the ability to make direct investments as required.
- NIIF got registered with SEBI as a Category II Alternative Investment Fund (AIF).
- AIFs are private funds which are otherwise not coming under the jurisdiction of any regulatory agency in India. In India, AIFs are regulated by the Securities and Exchange Board of India (Alternative Investment Funds) Regulations, 2012.

<https://www.thehindu.com/opinion/op-ed/in-pandemic-crisis-bridging-the-gulf-with-west-asia/article31836298.ece>

**4. With reference to the Global Partnership on Artificial Intelligence (GPAI), consider the following statements**

1. It is an international and multi-stakeholder initiative to guide the responsible development and use of AI, grounded in human rights, inclusion, diversity, innovation, and economic growth.
2. India has recently joined the GPAI initiative as an observer.

**Which of the statements given above is/are correct?**

- A. 1 only
- B. 2 only
- C. Both 1 and 2
- D. Neither 1 nor 2

Answer: A

**Explanation:**

- **Statement 1 is correct:** The Global Partnership on Artificial Intelligence (GPAI) is an international and multi-stakeholder initiative to guide the responsible development and use of AI, grounded in human rights, inclusion, diversity, innovation, and economic growth.
- This is also the first initiative of its type for evolving better understanding of the challenges and opportunities around AI using the experience and diversity of participating countries.
- In order to achieve this goal, the initiative will look to bridge the gap between theory and practice on AI by supporting cutting-edge research and applied activities on AI-related priorities.
- In collaboration with partners and international organizations, GPAI will bring together leading experts from industry, civil society, governments, and academia to collaborate to promote responsible evolution of AI and will also evolve methodologies to show how AI can be leveraged to better respond to the present global crisis around COVID-19.
- GPAI will be supported by a Secretariat, to be hosted by **Organization for Economic Cooperation and Development (OECD)** in Paris, as well as by two Centers of Expertise—one each in Montreal and Paris.
- **Statement 2 is incorrect:** India has recently joined the GPAI initiative as its **founder member**.
- By joining GPAI as a founding member, India will actively participate in the global development of Artificial Intelligence, leveraging upon its experience around the use of digital technologies for inclusive growth.

<http://newsonair.com/Main-News-Details.aspx?id=391450>

### 5. Consider the following statements about rapid antigen detection test

1. It seeks to detect the viral antigen unlike RT-PCR that detects antibodies.
2. It takes less time to interpret positive or negative for COVID-19 when compared to RT-PCR.

Which of the statements given above is/are correct?

- A. 1 only
- B. 2 only
- C. Both 1 and 2
- D. Neither 1 nor 2

Answer: B

#### Explanation:

##### What is the rapid antigen detection test for Covid-19?

- It is a test on swabbed nasal samples that detects antigens (foreign substances that induce an immune response in the body) that are found on or within the SARS-CoV-2 virus.
- It is a point-of-care test, performed outside the conventional laboratory setting, and is used to quickly obtain a diagnostic result.

##### How is rapid antigen detection test different from RT-PCR test?

- RT-PCR is currently the gold standard frontline test for the diagnosis of Covid-19.
- Like RT-PCR, the rapid antigen detection test too seeks to detect the virus rather than the antibodies produced by the body. Hence **statement 1 is incorrect**.
- The most significant difference between the two is time.
- As the ICMR has pointed out, the RT-PCR test takes a minimum of 2-5 hours including the time taken for sample transportation.
- In a reliable rapid antigen detection test, the maximum duration for interpreting a positive or negative test is 30 minutes.
- Hence **statement 2 is correct**.

##### About real-time PCR

- A reverse transcription-polymerase chain reaction (RT-PCR), also known as **quantitative polymerase chain reaction (qPCR)**, is a laboratory technique of molecular biology based on the polymerase chain reaction (PCR).
- It monitors the **amplification of a targeted DNA molecule** during the PCR (i.e., in real time), not at its end, as in conventional PCR.

<https://indianexpress.com/article/explained/how-rapid-antigen-test-detects-coronavirus-where-it-will-be-used-6460735/>