

## Answers

### 1) A

- India is participating in the 3rd Arctic Science Ministerial (ASM3) - the global platform for discussing research and cooperation in the Arctic region. Dr Harsh Vardhan, who participated in the event also, proposed that India may be given an opportunity to host the next or future ASM.
- The first two meetings—ASM1 and ASM2—were held in the USA in 2016 and Germany in 2018, respectively.
- 3rd Arctic Science Ministerial (ASM3); ASM3, jointly organised by Iceland and Japan, is the first Ministerial meeting being held in Asia.
- The meeting is designed to provide opportunities to various stakeholders, including academia, indigenous communities, governments and policymakers, to enhance collective understanding of the Arctic region. The theme for this year is 'Knowledge for a Sustainable Arctic'.

### 2) A

**Arctic Council:** It is the leading intergovernmental forum promoting cooperation, coordination and interaction among the Arctic States, Arctic Indigenous peoples and other Arctic inhabitants on common Arctic issues, in particular on issues of sustainable development and environmental protection in the Arctic. It was formally established in 1996.

The Ottawa Declaration defines the following states as Members of the Arctic Council:

- Sweden
- Canada
- Finland
- Iceland
- Norway
- The United States
- The Russian Federation
- The Kingdom of Denmark

Observer status in the Arctic Council is open to non-Arctic states. Since 2013, India enjoys 'Observer' status in the Arctic Council with twelve other countries (Japan, China, France, Germany, UK, Italy, Switzerland, Poland, Spain, Netherlands, Singapore, and South Korea).

The Chairmanship of the Arctic Council rotates every two years among the Arctic States. The Arctic Council's mandate, as articulated in the Ottawa Declaration, explicitly excludes military security.

**3) D**

**4) D**

When the magma is runny and thin, gases can easily escape it. In such cases, the magma will flow out towards the surface. However, if the magma is thick and dense and gases cannot escape it, it builds up pressure inside resulting in a violent explosion.

According to the US Center for Disease Control and Prevention (CDC), the most common cause of death from a volcano is suffocation, making people with respiratory conditions such as asthma and other chronic lung diseases susceptible. Volcanic emissions reaching the stratosphere can have a cooling effect on global temperatures.

The most significant climate impacts from volcanic injections into the stratosphere come from the conversion of sulphur dioxide to sulphuric acid, which condenses rapidly in the stratosphere to form fine sulphate aerosols. The aerosols increase the reflection of radiation from the Sun back into space, cooling the Earth's lower atmosphere or troposphere.

Bigger eruptions during the past century have caused a decrease in temperature of 0.27 degree Celsius or more on the Earth's surface for up to three years.

**5) B**

C-reactive protein (CRP) test, is mainly conducted for patients who are hospitalised for Covid virus treatment. Large number of doctors are recommending the same test even to those Covid positive patients who are in home isolation with moderate to mild symptoms.

CRP is not a diagnostic test but it has prognostic value, it can be done for any ailment. The higher value of CRP level than the normal level indicates that the infection is increasing.

CRP tests is a marker which shows the level of C-reactive protein, which is made by the liver, in the blood. Doctors are conducting it mandatorily for the patients with critical conditions who are in hospital care, because it is one of the indicators showing the body's reaction to the ongoing treatment.

If a patient in home isolation sees that his/her oxygen level is fluctuating between 93 to 97 quite often then the CRP is recommend to know the inflammation level in the body.

6) C

Fall in crude oil prices will bring down the oil import bill, saving the precious foreign exchange. India has to shell out money in dollars whenever it imports crude oil. So, whenever there is a fall in prices of crude oil, government has to pay less thereby resulting in reduced oil import bill. This will lead to increase in forex reserves.

Increased foreign travels: Foreign travel shall result in dollar outflows as people will spend dollars during their international travels. Depreciation of rupee: This will lead to increased exports resulting in increased dollar inflows.

7) C

- The Department of Telecommunications (DoT), Ministry of Communications has recently clarified that there is no relationship between the second wave of coronavirus and the testing of the 5G mobile towers.
- Several misleading messages are being circulated on various social media platforms claiming the second wave of corona-virus has been caused by the testing of the 5G mobile towers.
- Any apprehension about any mobile tower emitting radio waves beyond the safe limit prescribed by the department can visit Tarang Sanchar portal and verify emf emissions.

#### **Tarang Sanchar Portal**

- It has been developed in Public Private Partnership (PPP) mode. Department of Telecommunications initiative with Industry.
- This Portal envisages to disseminate the information to the public regarding Electro Magnetic Fields (EMF) signals and to allay the misconceptions and fear of health issues due to EMF emissions from mobile towers.
- Public, at large will be now able to check the current status of the mobile tower located anywhere in the country and the EMF signal compliance status of the same.

8) A

Puducherry has recently become 'Har Ghar Jal' Union Territory (UT) by ensuring that every rural home in the Union Territory gets a household tap connection.

With this, the UT becomes the fourth State/UT after Goa, Telangana and Andaman & Nicobar Islands to provide assured tap water supply to every rural home under Union Government's flagship programme, Jal Jeevan Mission.

### **Jal Jeevan Mission (JJM)**

It is a flagship program of the Union Government, which aims to provide tap water connection to every rural household of the country by 2024.

9) C

10) D

11) C

12) C

It is a doctor-to-doctor telemedicine system It is a doctor-to-doctor telemedicine system being implemented under the Ayushman Bharat Health and Wellness Centre (AB-HWCs) program. It seeks to connect all 1,50,000 HWCs using the hub-and-spoke model by December 2022.

No home delivery service is provided under e-Sanjeevani

13) A

It is a broad spectrum anti-parasitic agent administered orally to the patients. It is included in WHO essential medicines list for several parasitic diseases.

14) C

Mission for Integrated Development of Horticulture (MIDH):

The mission for Integrated Development of Horticulture (MIDH) is a Centrally Sponsored Scheme for the holistic growth of the horticulture sector. Nodal Ministry: Ministry of Agriculture & Farmers Welfare is implementing the MIDH scheme since 2014-15.

Part of: The scheme is being implemented as a part of the Green Revolution – Krishonnati Yojana.

Coverage: The scheme covers fruits, vegetables, root and tuber crops. The scheme also covers mushrooms, spices, flowers, aromatic plants, coconut, cashew and cocoa.

Productivity of Horticulture:

Area and production under horticulture crops during the years 2014 – 15 to 2019 – 20 has increased by 9% and 14% respectively. During the year 2019-20, the country recorded its highest ever horticulture production of 320.77 million tonnes from an area of 25.66 million hectares.

**15) C**

Recently 21 tribals across eight different Particularly Vulnerable Tribal Groups (PVTGs) in Odisha have tested positive for Covid-19. Among them, two persons are from the Bonda tribe.

Bonda Tribe:

Bonda tribes are one of the 13 Particularly Vulnerable Tribal Groups (PVTGs) found in Odisha. Bonda tribes are members of a group of Austro-Asiatic tribes. They are believed to be part of the first wave of migration out of Africa about 60,000 years ago. They are the first forest settlers in India.

The Bondas have retained their identity and culture despite external interventions over the years. They are primarily forest dwellers. They perform hunting and foraging for food in the wild.

The women prefer to marry men who are younger by at least 5-10 years. This is done because the men can earn for them when they grow old.

**16) D**

Project Elephant was launched by the Government of India in the year 1992 as a Centrally Sponsored Scheme. Elephant was declared as a national heritage animal of India in 2010

The very first elephant reserve or elephant sanctuary was the Singbhum Elephant Reserve of Jharkhand

**17) A**

It is a joint activity of International Arctic Science Committee (IASC) and the Arctic Council. It was established with the purpose to support and strengthen the development of multinational engagement for sustained and coordinated pan-Arctic observing and data sharing systems.

SAON was initiated by IASC and the Arctic Council's Arctic Monitoring and Assessment Programme (AMAP) in 2007.

The SAON is now governed by a SAON Board, with the Arctic Council appointing the Chair and IASC appointing the Vice-Chair.

The biennial Arctic Observing Summit is held in conjunction with the Arctic Science Summit Week (ASSW) and through SAON both IASC and the Arctic Council are contributing to the program.

**18) C**

**19) C**

Several centers are being set up by the Department of Science and Technology to house major analytical instruments to provide common services of high-end analytical testing, thus avoiding duplication and reduced dependency on foreign sources.

Three such centers set up at IIT Kharagpur, IIT Delhi and BHU Varanasi, are being operated with a transparent, open access policy. These centers were initiated under SATHI scheme.

Sophisticated Analytical & Technical Help Institutes (SATHI)' Scheme

The Department of Science and Technology (DST) is initiating of setting up a shared, professionally managed, Science and Technology infrastructure facility, which can be readily be accessible to academia, start-ups, manufacturing units, industries and R&D Labs. Such S&T infrastructure will be known as Sophisticated Analytical & Technical Help Institute (SATHI).

These Centers will be equipped with major analytical instrument and advanced manufacturing facility, which is usually not available at Institutes / Organizations. The aim is to provide professionally managed services with efficiency, accessibility and transparency of highest order under one roof to service the demands of industry, start-ups and academia.

DST is planned to set up five SATHI Centers every year for the next four years. This will also foster a strong culture of collaboration between institutions and across disciplines to take advantage of developments, innovations and expertise in diverse areas.

**20) C**