

## Answers

1) D

Dr. Harsh Vardhan, Union Minister of Health and Family Welfare has recently chaired an event to mark the World No Tobacco Day and led the pledge by everyone present to abstain from Tobacco. “Commit to Quit” is the theme of the World No Tobacco Day for the year 2021.

### Background

- In India, over 1.3 million deaths are attributable to tobacco use every year amounting to 3500 deaths per day, imposing a lot of avoidable socio-economic burden. Smokers face a 40-50% higher risk of developing severe disease deaths from COVID-19.
- As per the WHO study titled “Economic Costs of Diseases and Deaths Attributable to Tobacco Use in India” it has been estimated that the economic burden of diseases and deaths attributable to tobacco use of tobacco in India was as high as Rs. 1.77 lakh crores, amounting to approx 1% of GDP.
- Also, the National Health Policy, 2017 have set an ambitious target of reducing tobacco use by 30% by 2025.

2) B

Indian Institute of Technology, Ropar (IIT Ropar) in Punjab has recently developed a first-of-its-kind IoT device – AmbiTag.

### AmbiTag

- It is an Internet of Things (IoT) device which records real-time ambient temperature during the transportation of perishable products, vaccines and even body organs and blood.
- That recorded temperature further helps to know whether that particular item transported from anywhere in the world is still usable or perished because of temperature variation.
- This information is particularly critical for vaccines including Covid-19 vaccine, organs and blood transportation.
- Besides perishable items including vegetables, meat and dairy products it can also monitor the temperature of animal semen during transit. The device has been

developed under Technology Innovation Hub – AWaDH (Agriculture and Water Technology Development Hub), a Govt of India project and it's Startup ScratchNest.

### 3) C

According to a census carried out by the Odisha State Forest Department, Odisha's blackbuck population has doubled in the last six years. The blackbuck (*Antelope cervicapra*) is also known as the Indian antelope. It is an antelope native to India and Nepal.

Habitat: It inhabits grassy plains and lightly forested areas with perennial water sources.

State Animal: Blackbuck has been declared as the State Animal of Punjab, Haryana, and Andhra Pradesh.

Protection Status:

- IUCN Status: Least Concern
- Wildlife Protection Act 1972: Schedule I
- CITES: Appendix III

Religious Significance: The blackbuck is routinely depicted in miniature paintings of the Mughal era (16th to 19th centuries) depicting royal hunts often using cheetahs.

### 4) D

- Forest Generalists include species that can adapt to modified habitats such as orchards and degraded forests. Example, Pigeon and Black Kite
- Forests Specialists include species that search for food and breed only in dense protected Forests. For example, Rufous-bellied woodpecker, greater yellow nape

### 5) A

### 6) C

Recently, IFFCO has launched the world's first Nano Urea Liquid.

Nano Urea Liquid is a nutrient to provide nitrogen to plants as an alternative to conventional urea. Developed by: Nano Urea Liquid has been developed indigenously through proprietary technology at IFFCO's Nano Biotechnology Research Centre(NBRC) in Gujarat.

Nano Liquid Urea can curtail the requirement of urea by at least 50%. This will in turn reduce India's dependence on urea imports. The conventional urea is 30-40% effective in delivering nitrogen to plants while the effectiveness of the Nano Urea Liquid is over 80%.

**7) B**

During Genocide in Rwanda, France was accused of acting as a staunch ally of the Hutu-led government that ordered the killings.

In 1994, France deployed a UN-backed military force in Rwanda called Operation Turquoise—which was able to save some people. However, it was accused of sheltering some of the genocide's perpetrators.

**8) A**

The Central Vigilance Commission was set up by the Government in February, 1964 on the recommendations of the Committee on Prevention of Corruption, headed by Shri K. Santhanam, to advise and guide Central Government agencies in the field of vigilance.

The CVC is not controlled by any Ministry/Department. It is an independent body which is only responsible for the Parliament.

**9) A**

The Defence Acquisition Council (DAC), in its meeting held recently under the Chairmanship of Defence Minister, Shri Rajnath Singh has approved proposals concerning Capital Acquisitions of various equipment for modernisation and operational needs of the Armed Forces amounting to approx. Rs 6,000 crore.

#### **Defence Acquisition Council**

- It is the Defence Ministry's highest decision-making body for deciding on new policies and capital acquisitions for the three services (Army, Navy and Air Force) and the Indian Coast Guard.
- Union Minister for Defence is the Chairman of the Council.
- It was formed, after the Group of Ministers recommendations on 'Reforming the National Security System', in 2001, post Kargil War (1999).

**10) D**

- The Experimental Advanced Superconducting Tokamak (EAST) reactor is an advanced nuclear fusion experimental research device.
- It is located at the Institute of Plasma Physics of the Chinese Academy of Sciences (ASIPP) in Hefei, China.

- It is part of the International Thermonuclear Experimental Reactor (ITER) facility, which will become the world's largest nuclear fusion reactor when it becomes operational in 2035.
- It is designed to replicate the nuclear fusion process carried out by the sun and stars.

**11) C**

RNA viruses have high mutation rates—up to a million times higher than their hosts—and these high rates are correlated with enhanced virulence and evolvability, traits considered beneficial for viruses. Due to high mutation the replication cycles of RNA virus are more error-prone.

**12) B**

The SDG India Index was launched in 2018 by NITI Aayog. It was developed in collaboration with the United Nations. As the States, progress will determine India's progress towards achieving the Sustainable Development Goals (SDGs) by 2030. The index aims to bring competition among States to improve their performance across social indices.

The 2020-21 index is the 3rd edition of SDG India Index.

States:

- Kerala has topped the index with a score of 75.
- It was followed by Himachal Pradesh and Tamil Nadu with a score of 74.
- UTs: Chandigarh maintained its top spot among the UTs with a score of 79, followed by Delhi (68)

**13) D**

It was developed by the CSIR-NCL, Pune, with the support from the Water Technology Initiative of the Department of Science and Technology (DST), Government of India. The technology involves boiling of a liquid as a result of pressure reduction (cavitation) and also uses natural oils having antimicrobial properties.

This technology can eliminate harmful bacteria, including antimicrobial-resistant bacteria, economically. It not only integrates Indian traditional knowledge of Ayurveda for complete disinfection of water but also may offer possible health benefits of natural oils.

**14) A**

The Seed Minikit Program has been recently launched by Union Agriculture Minister Shri. Narendra Singh Tomar by distributing Seed Minikits (higher yielding varieties of seeds) to farmers.

**Seed Minikit Program**

- The mini kits are being provided by the Central Agencies National Seeds Corporation (NCS), National Agricultural Cooperative Marketing Federation of India (NAFED) and Gujarat State Seeds Corporation.
- The program has been wholly funded by the Government of India through the National Food Security Mission.
- It is a major tool for introducing new varieties of seeds in the farmers' fields and is instrumental for increasing the seed replacement rate.

**15) C**

Due to the lower heat loss smaller machines can be used to make the Isothermal forging. Here the work piece is maintained at its maximum elevated temperature throughout the entire operation

Isothermal Forging Technology for Aero engines is achieved by DRDO to develop a jet engine with the thrust to power a fighter in combat. This technological involves developing complex titanium and nickel-based alloys that can withstand temperatures of more than 1,000 degrees Celsius.

**16) A****Radioisotope Thermoelectric Generator (RTG)**

- UR Rao Satellite centre (URSC) of ISRO invited Proposals for the three phase development of a 100 Watt Radioisotope Thermoelectric Generator (RTG).
- URSC is ISRO's lead centre for design, development, fabrication, and testing of all Indian made satellites. Gaganyaan crew module is a fully autonomous 5.3 t (12,000 lb) space craft designed to carry a 3-member crew to orbit and safely return to the Earth after a mission duration of up to seven days.
- It will use GSLV Mark III launcher which is powered by liquid propellant engines.

**17) A**

In response to the “WHO Global Action Plan for the Prevention and Control of NCDs 2013-2020”, India is the first country to adopt such a National Action Plan to reduce premature deaths due to NCDs.

Indian action plan is aimed at reducing (not eliminating) the number of global premature deaths from NCDs by 25% by 2025.

**18) D**

**19) C**

With the objective of focusing on the needs of India’s fast-rising elderly population, the Ministry of Social Justice and Empowerment will launch the Senior care Ageing Growth Engine (SAGE) project.

**Senior care Ageing Growth Engine (SAGE) Project**

- The project aims to select, support and create a “one-stop access” of elderly care products and services by credible start-ups.
- The initiative will be launched by the Ministry of Social Justice and Empowerment.
- Start-ups can apply for being a part of SAGE through a dedicated portal, SAGE, will also be launched.
- The Ministry of Social Justice & Empowerment will act as a facilitator, enabling the elderly to access the products through these identified start-ups.
- The SAGE project is shaped on the recommendations of the empowered expert committee (EEC) report on start-ups for elderly.

**20) A**