

## Answers

1) C

The Dam Rehabilitation and Improvement Project (DRIP) Phase II & Phase III with the financial assistance of the World Bank (WB), and Asian Infrastructure Investment Bank (AIIB) is being implemented to improve the safety and operational performance of selected dams across the whole country, along with institutional strengthening with system wide management approach.

The Project will be implemented over a period of 10 years duration in two Phases, each of six years duration with two years overlapping from April, 2021 to March, 2031. DRIP Phase II & Phase III envisages the following objectives:

- To improve the safety and performance of selected existing dams and associated appurtenances in a sustainable manner.
- To strengthen the dam safety institutional setup in participating states as well as at central level, and
- To explore the alternative incidental means at few of selected dams to generate the incidental revenue for sustainable operation and maintenance of dams.

2) C

Under this stream of medicine the radiotracer travels through the area being examined and gives off energy in the form of gamma rays. Such gamma rays are detected by a special camera and a computer to create images of the inside of your body.

Nuclear medicine imaging provides unique information that often cannot be obtained using other imaging procedures and offers the potential to identify disease in its earliest stages.

Recently Bhabha Atomic Research Centre (BARC) has “evolved” the design for the country's first public private partnership research reactor for production of nuclear medicines. This project will be a major step towards making India self-reliant in key radio isotopes used in medical and industrial applications. At present, India produces all major isotopes in the country under the aegis of BARC.

3) D

**4) C**

Pattachitra style of painting is one of the oldest and most popular art forms of Odisha and Bengal. The name Pattachitra has evolved from the Sanskrit words patta, meaning canvas, and chitra, meaning picture.

All colours used in the Paintings are natural. In bengal tradition it is centred around Kalighat (in Kolkata), the theme is not much devotional. In odisha tradition it is centered around Puri. These paintings are based on Hindu mythology and specially inspired by Jagannath and Vaishnava sect.

**5) B**

Poliomyelitis is a crippling disease that results from infection with any one of the three related poliovirus types (referred to as types P1, P2, and P3), members of the enterovirus (picornavirus) family. Poliovirus is transmitted from one person to another by oral contact with secretions or faecal material from an infected person.

Oral polio vaccine (OPV) consists of a mixture of live attenuated poliovirus strains of each of the three serotypes, selected by their ability to mimic the immune response following infection with wild polioviruses, but with a significantly reduced incidence of spreading to the central nervous system.

Inactivated polio vaccine (IPV) is produced from wild-type poliovirus strains of each serotype that have been inactivated (killed) with formalin. As an injectable vaccine, it can be administered alone or in combination with other vaccines (e.g., diphtheria, tetanus, pertussis, hepatitis B, and haemophilus influenza).

President of India recently launched the Pulse Polio Program for 2021. Government of India has also introduced the injectable Inactivated Polio Vaccine into its routine immunization program.

**6) B**

The Union Budget proposed to launch a Hydrogen Energy Mission in 2021-22 for generating hydrogen from green power sources. Hydrogen can be generated from many sources, but India stresses on the hydrogen sources from renewable sources.

In the longer term, solar energy and biomass can be used more directly to generate hydrogen. This mission would decarbonise heavy industries, and also holds the key to clean electric mobility that doesn't depend on rare minerals.

Hydrogen can act as an energy storage option, which would be essential to meet intermittencies (of renewable energy) in the future. Green hydrogen energy is vital for India to meet its Nationally Determined Contributions and ensure regional and national energy security, access and availability.

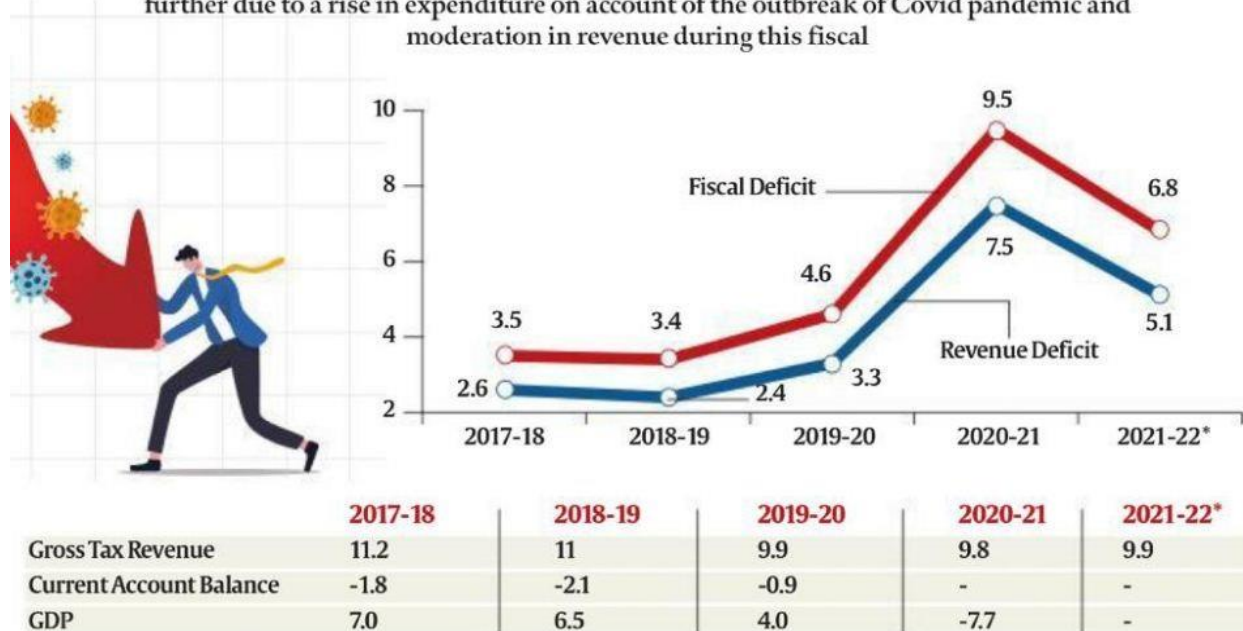
The method of producing hydrogen through methane reforming will result in significant carbon dioxide emissions. There is the potential to capture these emissions using carbon capture and storage (CCS) technology, although this is relatively underdeveloped in India.

## 7) A

The fiscal deficit in BE 2021-2022 is estimated to be 6.8% of GDP. The fiscal deficit in RE 2020-21 is pegged at 9.5% of GDP – funded through Government borrowings, multilateral borrowings, Small Saving Funds and short-term borrowings.

## WIDENING FISCAL DEFICIT

The Central government's fiscal deficit, which has been under strain, has slipped further due to a rise in expenditure on account of the outbreak of Covid pandemic and moderation in revenue during this fiscal



\*Budget Estimates, note: All data (except GDP growth rates) as percentage of GDP

Source: Finance Ministry, RBI

This financial year 2020-21 is expected to end with an Annual Current Account Surplus for the first time after a period of 17 years.

8) B

The horizontal devolution determines each state's share in central taxes depending their status/performance in the weights assigned to following criterion:

Criterion	Weight
Population	15
Income Distance	45
Forest & Ecology	10
Demographic Performance	12.5
Area	15
Tax & Fiscal Efforts	2.5
<b>Total</b>	<b>100</b>

9) B

India has 15,106.7 Km of land border and a coastline of 7,516.6 Km including island territories. The length of our land borders with neighboring countries is:

Country	Border length
Bangladesh	4,096.7 km
China	3,488 km
Pakistan	3,323 km
<b>Nepal</b>	<b>1,751 km</b>
<b>Myanmar</b>	<b>1,643 km</b>
Bhutan	699 km
Afghanistan	106 km
<b>Total</b>	<b>15,106.7</b>

Integrated Check Post (ICP) Moreh is located on NH-39 on the India-Myanmar border in the Tengnoupal district at about 110 Km. from Imphal, the State capital of Manipur. Tamu is the corresponding town in Myanmar opposite to Moreh.

10) C

The metro rail system being developed at present is of high capacity which is required for bigger cities with very high ridership and Peak Hour Peak Direction Traffic (PHPDT). The Ministry of Housing & Urban Affairs released specifications for a system named Metro Neo in November 2020, which will be at much lesser cost, rail guided, rubber tyred electric coaches powered by overhead traction system running on a road slab (elevated/at-grade). It can have a Peak Hour Peak Direction Traffic upto 8,000 and 25% of cost of conventional metro system.

'Metro neo' would also act as feeder system to high-capacity Metro. In addition to less capital cost, the operation and maintenance cost of Metro neo would also be less making the system more viable.

**11) A**

For Union Territories, there will be 100% central funding. For North Eastern and Hill States, central funding for projects will be 90%. Central funding will be 50% for cities with less than 1 lakh population, one third for cities with 1 lakh to 10 lakh population and 25% for cities with million plus population. Mission will be monitored through a technology-based platform on which beneficiary response will be monitored along with progress and output-outcome. Funding from Government for projects will be in three tranches of 20:40:40. Third installment onwards will be released based on outcomes achieved and credible exclusion will be exercised while funding.

**12) B****Square Kilometre Array Observatory (SKAO)**

SKAO has members from ten countries - Australia, Canada, China, India, Italy, New Zealand, South Africa, Sweden, the Netherlands and the UK. Unlike optical telescopes, radio telescopes can detect invisible gas and, therefore, they can reveal areas of space that may be obscured by cosmic dust.

SKAO council has proposed to establish largest radio telescope in the world, in Africa and Australia whose operation, maintenance and construction will be overseen by SKAO. As per NASA, the telescope will accomplish its scientific goals by measuring neutral hydrogen over cosmic time, accurately timing the signals from pulsars in the Milky Way, and detecting millions of galaxies out to high redshifts.

**The Indian Astronomical Observatory:** It is one of the world's highest located sites for optical, infrared and gamma-ray telescopes. It is located in Hanle near Leh in Ladakh, India. It is operated by the Indian Institute of Astrophysics, Bangalore.

**13) B**

In order to promote medicinal plants sector, the Government of India set up National Medicinal Plants Board (NMPB) in 2000. Currently the board is located in Ministry of AYUSH (Ayurveda, Yoga & Naturopathy, Unani, Siddha & Homoeopathy), Government of India. The primary mandate of NMPB is to develop an appropriate mechanism for coordination

between various ministries/ departments/ organizations in India and implements support policies/programs for overall (conservation, cultivation, trade and export) growth of medicinal plants sector both at the Central /State and International level. The National Medicinal Plants Board (NMPB), under its Central Sector Scheme on 'Conservation, Development and Sustainable Management of Medicinal Plants' is supporting research & development projects on various aspects of medicinal plants to government as well as private universities/research institutions/organizations across the country.

**14) A**

National level hackathon on agriculture technology aimed to promote innovation in agriculture and allied sectors in the country. Advantages of organising Agri-Hackathon are to give opportunity to the students along with faculties, innovators for showcasing their innovative approaches & technologies in agriculture and allied sector KRI-TA-GYA explains, KRI for Krishi (Agriculture), TA for Taknik (Technology) and GYA for Gyan (Knowledge). The hackathon was organised by the Indian Council of Agricultural Research (ICAR). Several innovations selected under this initiative focused on robotic harvesting of coconut/oil palm, real time detection of plant diseases and simultaneous site-specific application of pesticides and Women friendly equipment for small farm operations especially for sericulture and fish cutting.

**15) A**

Wetlands are the favorite habitats of the fishing cat. In India, fishing cats are mainly found in the mangrove forests of the Sundarbans, on the foothills of the Himalayas along the Ganga and Brahmaputra river valleys and in the Western Ghats. Fishing cats have a patchy distribution along the Eastern Ghats. Apart from Sundarbans in West Bengal and Bangladesh, fishing cats inhabit the Chilika lagoon and surrounding wetlands in Odisha, Coringa and Krishna mangroves in Andhra Pradesh.

Fishing cat is protected under the Schedule I of the Wildlife Protection Act, 1972. The Convention on International Trade in Endangered Species (CITES) lists the fishing cat on Appendix II part of Article IV of CITES, which governs international trade in this species. Fishing Cat (*Prionailurus viverrinus*) is listed as Endangered species with decreasing population trend in the IUCN Red List of Threatened Species,

**16) B**



The Standing Committee on the DNA Technology (Use and Application) Regulation Bill, 2019 has recently submitted its report. Under the Bill, DNA testing is allowed only in respect of matters listed in the Schedule to the Bill. These include offences under the Indian Penal Code, 1860, and for civil matters such as paternity suits. Further, the Schedule includes DNA testing for matters related to establishment of individual identity.

The Bill provides for the establishment of a National DNA Data Bank and Regional DNA Data Banks, for every state, or two or more states. DNA laboratories are required to share DNA data prepared by them with the National and Regional DNA Data Banks.

# The Standing Committee report suggests one National Data Bank only, to limit the chances of misuse of data. Every Data Bank will be required to maintain indices for the following categories of data: (i) a crime scene index, (ii) a suspects' or undertrials' index, (iii) an offenders' index, (iv) a missing persons' index, and (v) an unknown deceased persons' index.

#### **17) C**

The Essential Commodities (Amendment) Act, 2020 provides that the central government may regulate the supply of certain food items including cereals, pulses, potatoes, onions, edible oilseeds, and oils, only under extraordinary circumstances. These include: (i) war, (ii) famine, (iii) extraordinary price rise and (iv) Natural calamity of grave nature.

Statement 2 is correct. It requires that imposition of any stock limit on agricultural produce must be based on price rise. A stock limit may be imposed only if there is: (i) a 100% increase in retail price of horticultural produce; and (ii) a 50% increase in the retail price of non-perishable agricultural food items.

#### **18) C**

#### **19) B**

The objective of the Integrated Disease Surveillance Program (IDSP) is to strengthen/maintain decentralized laboratory-based IT enabled disease surveillance system for epidemic prone diseases to monitor disease trends and to detect and respond to outbreaks in early rising phase through trained Rapid Response Team (RRTs).

Under IDSP data is collected on epidemic-prone diseases on weekly basis (Monday–Sunday). The information is collected on three specified reporting formats, namely “S” (suspected cases), “P” (presumptive cases) and “L” (laboratory confirmed cases) filled by Health Workers, Clinicians and Laboratory staff respectively. The weekly data gives information on the disease

trends and seasonality of diseases. Whenever there is a rising trend of illnesses in any area, it is investigated by the Rapid Response Teams (RRT) to diagnose and control the outbreak.

## **20) A**

Through Union Budget 2021-22, the Union Minister for Finance & Corporate Affairs announced that the Government will consolidate the provisions of SEBI Act, 1992, Depositories Act, 1996, Securities Contracts (Regulation) Act, 1956 and Government Securities Act, 2007 into a rationalized single Securities Markets Code. Securities are tradable financial instruments used to raise capital in public and private markets. There are primarily three types of securities: equity—which provides ownership rights to holders; debt—essentially loans repaid with periodic payments; and hybrids—which combine aspects of debt and equity.

