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1. Economy

- 1) Consider the following statements regarding Currency chests.
 - 1. Currency chest is a place where Banks stock the money meant for ATMs.
 - 2. Currency chests are administrated by the RBI.
 - 3. The security of currency chests is the responsibility of the bank in which they are situated.

Which of the above statements is/are correct?

- a) 1, 2
- b) 2, 3
- c) 1, 3
- d) 1, 2, 3

Solution: b)

Currency chest is a place where the Reserve Bank of India (RBI) stocks the money meant for banks and ATMs. These chests are usually situated on the premises of different banks but administrated by the RBI.

The money present in the currency chest belongs to the RBI and the money, kept in the strong room outside the currency chest belongs to the bank.

How is the loss recovered in case of a crime resulting in loss of cash?

As per the set guidelines, the bank, in which the currency chest is situated is liable to fulfill the loss of the currency chest.

The security of currency chests is the subject of the bank in which chests are situated. The Reserve Bank of India (RBI) reimburses the security expenses to the bank as per the set norms.

Source

- 2) Special Drawing Rights (SDR) can be used to
 - 1. Supplementing IMF member countries' official reserves.
 - 2. Settle Balance of Payment transactions
 - 3. Bridge fiscal deficit and fund infrastructure projects

Select the correct answer code:

- a) 1, 3
- b) 1, 2
- c) 1 only
- d) 1, 2, 3

Solution: b)

The SDR is neither a currency nor a claim on the IMF. Rather, it is a potential claim on the freely usable currencies of IMF members. SDRs can be exchanged for these currencies. It cannot be used to fund infrastructure projects as it is not a currency. Same goes for settling domestic financial bills of the government.

SDR allocations can play a role in providing liquidity and supplementing member countries' official reserves.

IMF member countries can borrow SDRs from its reserves at favorable interest rates, mostly to adjust their balance of payments to favorable positions.

- 3) Consider the following statements regarding Inflation Targeting
- 1. Inflation targeting revolves around adjusting monetary policy to achieve a specified annual rate of inflation.
 - 2. The principle of inflation targeting is based on the belief that long-term economic growth is best achieved by maintaining price stability, and price stability is achieved by controlling inflation.

Which of the above statements is/are correct?

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

Solution: c)

What Is Inflation Targeting?

- 1. Inflation targeting is a central banking policy that revolves around adjusting monetary policy to achieve a specified annual rate of inflation.
- 2. The principle of inflation targeting is based on the belief that long-term economic growth is best achieved by maintaining price stability, and price stability is achieved by controlling inflation.
- 3. As a strategy, inflation targeting views the primary goal of the central bank as maintaining price stability.
- 4) Consider the following statements regarding Minimum support price (MSP).
- 1. In recent years, in the Southern states, more than 70 percent of the rice produced has been procured at MSP.
 - 2. MSP was not part of any law before, nor is it part of any law today.
 - 3. MSP is being announced since the time of the Green Revolution.

Which of the above statements is/are correct?

- a) 1, 2
- b) 1, 3
- c) 2, 3
- d) 2 only

Solution: c)

The newly enacted three farm laws does not give any statutory backing to MSP. "MSP was not part of any law before. Nor is it part of any law today."

WHAT'S MSP

It is a "minimum price"
for any crop that the
government considers as
remunerative for farmers and hence
deserving of "support". It's also the
price that government agencies pay
whenever they procure the particular
crop. The government now fixes MSPs
for 23 crops, but is NOT legally bound
to pay these even if open market rates
for the said produce are ruling below
their announced floor prices

MSP is devoid of any legal backing. Access to it, unlike subsidised grains through the PDS, **isn't an entitlement for farmers. They cannot demand it as a matter of right.**



The Centre fixes MSPs for every kharif and rabi cropping season based on recommendations of the Commission for Agricultural Costs and Prices (CACP)

• When a farmer grows a crop, he incurs costs, some of it explicit and some implicit or unpaid. The CACP considers the following costs:



A2

Covers all cash and in kind expenses incurred by farmers on seeds, fertilisers, chemicals, hired labour, fuel, irrigation, etc



A2+FL

Actual costs plus an imputed value of unpaid family labour





C2

Includes 'A2+FL' along with revenues forgone on owned land (rent) and fixed capital assets (interest)

The government can procure at the MSPs if it wants to. There is no legal compulsion. Nor can it force others (private traders, organised retailers, processors or exporters) to pay.

MSPs being announced since the time of the Green Revolution, starting with wheat in 1966-67.

Proportion of Procurement of Rice – by State								
	2017-18		2018-19		2019-20			
State	Production	%	Production	%	Production	%		
	in lakh tons	Procurement	in lakh tons	Procurement	in lakh tons	Procurement		
Telangana	62.62	57.78	66.7	77.81	76.78	97.08		
Punjab	133.82	88.40	128.22	88.36	118.23	91.99		
Haryana	45.23	88.26	45.16	87.29	48.24	89.20		
Chhattisgarh	49.31	66.01	65.27	60.84	64.99	76.00		
Andhra	81.66	48.98	82.35	58.36	87.13	61.15		
Pradesh								
Odisha	65.51	50.18	77.34	57.51	80.64	58.63		
Maharashtra	27.31	6.55	32.76	17.70	31.1	37.20		
Madhya	41.24	26.58	44.95	31.03	48.06	36.20		
Pradesh								
Tamil Nadu	66.39	15.23	61.31	21.11	66.15	30.79		
Uttar Pradesh	132.74	21.66	155.45	20.80	155.23	24.42		
Bihar	80.93	9.80	61.56	15.42	65.84	20.37		
West Bengal	149.67	11.18	162.42	12.18	153.96	10.59		
Jharkhand	40.78	0.00	28.94	5.29	31.9	7.99		
Assam	52.84	0.66	52.21	1.93	50.83	3.56		
Karnataka	30.17	0.43	34.31	1.72	33.02	1.24		
Gujarat	18.91	0.05	19.12	0.47	19.3	0.73		

- 5) Which of the following millets are covered under Minimum support price (MSP)?
 - 1. Jowar

- 2. Soyabean
- 3. Bajra
- 4. Ragi
- 5. Maize

Select the correct answer code:

- a) 1, 2, 3
- b) 1, 3, 4
- c) 1, 3, 4, 5
- d) 1, 2, 3, 4, 5

Solution: b)

Bajra, jowar and ragi are the three millets covered under MSP. Soyabean is an oilseed. Maize is a Coarse cereal.

- 6) The Government has identified which of the following sectors as strategic sectors, where bare minimum CPSEs would be retained?
 - 1. Transport
 - 2. Insurance and Financial Services
 - 3. Telecommunications
 - 4. Petroleum

Select the correct answer code:

- a) 1, 2, 3
- b) 1, 3, 4
- c) 2, 3, 4
- d) 1, 2, 3, 4

Solution: d)

The government in the Budget unveiled the Disinvestment/Strategic Disinvestment Policy and identified four sectors -- Atomic energy, Space and Defence; Transport and Telecommunications; Power, Petroleum, Coal and other minerals; and Banking, Insurance and financial services -- as strategic sectors, where bare minimum CPSEs would be retained.

<u>Source</u>

7) India has come a long way in liberating the capital account transactions in the last three decades and currently has partial capital account convertibility.

Which of the recent moves indicate the above statement?

- 1. Increasing the foreign portfolio investment limits in the Indian debt markets
- 2. Introducing the Fully Accessible Route (FAR) through which non-residents can invest in specified government securities without any restrictions
 - 3. Easing of external commercial borrowing
 - 4. Allowing outbound FDI by Indian incorporated entities

Select the correct answer code:

- a) 1, 2, 3
- b) 1, 3, 4
- c) 2, 3, 4
- d) 1, 2, 3, 4

Solution: d)

India has come a long way in liberating the capital account transactions in the last three decades and currently has partial capital account convertibility.

Some of the recent moves include increasing the foreign portfolio investment limits in the Indian debt markets, introducing the Fully Accessible Route (FAR) — through which non-residents can invest in specified government securities without any restrictions and the easing of the external commercial borrowing framework by relaxing end-user restrictions. Inward FDI is allowed in most sectors, and outbound FDI by Indian incorporated entities is allowed as a multiple of their net worth.

- 8) Consider the following statements.
- 1. Ways and Means Advances is a facility for both the Centre and States to borrow long terms funds, say more than one year from the RBI.
 - 2. RBI has equal powers to regulate all Cooperative Banks at par with the commercial banks.

Which of the above statements is/are correct?

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

Solution: d)

What is Ways and Means Advances (WMA)?

It is a facility for both the Centre and states to borrow from the RBI. These borrowings are meant purely to help them to tide over temporary mismatches in cash flows of their receipts and expenditures. In that sense, they aren't a source of finance per se. Section 17(5) of the RBI Act, 1934 authorises the central bank to lend to the Centre and state governments subject to their being repayable "not later than three months from the date of the making of the advance".

RBI has equal powers to regulate Urban Cooperative Banks (**not Rural Cooperative Banks**) at par with the commercial banks.

Rural co-operative banks remain under the dual regulation of RBI and Registrar of Co-operative Societies.

- 9) Consider the following statements regarding Base Erosion and Profit Shifting (BEPS).
 - 1. BEPS refers to the phenomenon where companies invest in a host country via shell companies situated in tax havens to reduce their tax liability.
 - 2. The Multilateral Convention to Implement Tax Treaty Related Measures to Prevent BEPS is an outcome of the World Economic Forum BEPS Project.
 - 3. India has ratified the Multilateral Convention to Implement Tax Treaty Related Measures to Prevent BEPS

Which of the above statements is/are correct?

- a) 1, 2
- b) 3 only
- c) 2, 3
- d) 1, 3

Solution: b)

The Multilateral Convention to Implement Tax Treaty Related Measures to Prevent Base Erosion and Profit Shifting is an outcome of the OECD / G20 Project to tackle Base Erosion and Profit Shifting (the "BEPS Project") i.e., tax planning strategies that exploit gaps and mismatches in tax rules to artificially shift profits to low or no-tax locations where there is little or no economic activity, resulting in little or no tax being paid. The companies need not invest via shell companies to be accused of BEPS.

India has ratified the Multilateral Convention to Implement Tax Treaty Related Measures to Prevent Base Erosion and Profit Shifting.

Source Source

- 10) Consider the following statements.
 - 1. Housing Finance Companies (HFCs) are under the direct supervision of the Reserve Bank of India (RBI).
- 2. Housing Finance Companies lending rates are based on either marginal cost of lending rate (MCLR) or on the repo rate.

Which of the above statements is/are correct?

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

Solution: a)

Even as **Housing Finance Companies (HFCs) have come under the direct supervision of the Reserve Bank of India (RBI)** since August 2019, existing home loan customers are getting differential treatment from banks and HFCs.

Over the last 18 months to 5 years, if bank customers have seen better transmission of rate cuts in their home loan rates on account of cut in marginal cost of lending rate (MCLR), HFC customers have had limited benefit because of relatively smaller cuts in the prime lending rate (PLR) — something that matters a lot in a long-term product such as a 10-20-year home loan.

While HFCs and banks compete hard on rates to attract new customers, the cut in rates for existing customers depends on the reduction in MCLR by banks and in **PLR by HFCs** in response to a repo cut by RBI.

Source

- 11) Consider the following statements regarding the revisions in the MSME definition with effect from July 1, 2020.
 - 1. The distinction between manufacturing and services sector MMSEs is removed.
 - 2. An additional criterion of turnover is introduced.
 - 3. Investment thresholds are revised upwards.

Which of the above statements is/are correct?

- a) 1, 2
- b) 1, 3
- c) 2, 3
- d) 1, 2, 3

Solution: d)

With effect from July 1, 2020, the revisions in the MSME definition were three-fold. First, the distinction between manufacturing and services sector MMSEs was removed; second, an additional criterion of turnover was introduced; and third, investment thresholds were revised upwards.

Source

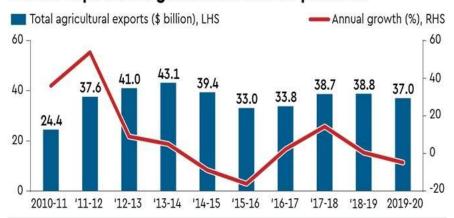
- 12) Consider the following statements regarding India's agriculture exports.
 - 1. India's agriculture exports have grown steadily year after year since 2013-14.
 - 2. In the last 10 years, the highest agriculture exports were in 2019-20.

Which of the above statements is/are correct?

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

Solution: d)

India's exports of agricultural & allied products



CAGR: 2010-11 to 2019-20 = 1.7%; 2010-11 to 2014-15 = 11.5%; 2015-16 to 2019-20 = 3.7%

Source: Author's calculations based on data accessed from Economic Survey, Government of India (various issues) and World Trade Statistical Review 2020, WTO

13) Consider the following statements.

- 1. Manufacturing Purchasing Managers' Index (PMI) gives an indication of the economic health of the manufacturing sector.
- 2. There has been consistent increase in the devolution of taxes from the centre to states during the 11th to 15th Finance Commission periods.

Which of the above statements is/are correct?

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

Solution: a)

Purchasing Managers' Index is an economic indicator that is calculated from monthly surveys of purchasing managers and supply executives from specific companies. **PMI Manufacturing gives an indication of the economic health of the manufacturing sector.**

The 12th Finance Commission raised the *share* of *States* in shareable Central taxes from 29.5 per cent to 30.5 per cent.

13th Finance Commission: The states' share in central taxes has been increased from 30.5 per cent (including the share of additional excise duties) to 32 per cent.

The 14th Finance Commission considerably increased the devolution of taxes from the centre to states from 32% to 42%.

15th Finance Commission has recommended 41% share for states from Centre's divisible pool.

14) Consider the following statements.

- 1. Purchasing Managers' Index is released by Central Statistics Office (CSO).
- 2. Consumer Price Index for Industrial Workers is released by Labour Bureau with 2016 as the base year. Which of the above statements is/are correct?
 - a) 1 only
 - b) 2 only
 - c) Both 1 and 2
 - d) Neither 1 nor 2

Solution: b)

Purchasing Managers' Index is an economic indicator that is calculated from monthly surveys of purchasing managers and supply executives from specific companies. **PMI Manufacturing gives an indication of the economic health of the manufacturing sector.** The most followed PMI readings come from Markit and Institute of Supply Management.

It is **calculated separately for the manufacturing and services sectors** and then a composite index too is constructed.

The Labour and Employment Ministry has revised the base year of the Consumer Price Index for Industrial Workers (CPI-IW) from 2001 to 2016.

The **Labour Bureau**, an attached office of the M/o Labour& Employment, has been **compiling Consumer Price Index for Industrial Workers** every month.



2. Ecology and Environment

- 1) Consider the following statements regarding Cyanobacteria.
 - 1. Cyanobacteria are microscopic organisms common in water and sometimes found in soil.
 - 2. Not all Cyanobacteria produce toxins.
 - 3. Climate change and increasing global temperature is leading to cyanobacterial blooms.

Which of the above statements is/are correct?

- a) 1, 2
- b) 1, 3
- c) 2, 3
- d) 1, 2, 3

Solution: d)

Toxins in water produced by cyanobacteria killed more than 300 elephants in Botswana.

Cyanobacteria are microscopic organisms common in water and sometimes found in soil. Not all produce toxins but scientists say toxic ones are occurring more frequently as climate change drives up global temperatures. Some cyanobacterial blooms can harm people and animals and scientists are concerned about their potential impact as climate change leads to warmer water temperatures, which many cyanobacteria prefer.

- 2) Consider the following statements regarding Irrawaddy dolphins.
- 1. Irrawaddy Dolphins are normally found in sea coasts and in estuaries and rivers in parts of Bay of Bengal and South East Asia.
 - 2. They are classified as Endangered as per IUCN Red List.

Which of the above statements is/are incorrect?

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

Solution: d)

The Irrawaddy dolphin (Orcaella brevirostris) is a euryhaline species of oceanic dolphin found in discontinuous subpopulations near sea coasts and in estuaries and rivers in parts of the Bay of Bengal and Southeast Asia.

Although found in much of the riverine and marine zones of South and Southeast Asia, the concentrated lagoon populations are found in Chilika Lake in Odisha and Songkhla Lake in southern Thailand.

Irrawaddy dolphins in general are listed as an Endangered species.

Source

- 3) Consider the following statements regarding the mangroves of Guneri and Shravan Kavadia.
 - 1. The mangroves of Guneri and Shravan Kavadia are located in the Indian part of Sundarbans region.
 - 2. They survive because of underground supply of brackish or saline water.

Which of the above statements is/are correct?

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

Solution: b)

Mangroves, by definition, are small shrubs or trees that grow in saline or brackish water, and are found in coastal areas. The mangroves of Guneri and also of Shravan Kavadia, both in Kutch, however, are completely landlocked and are therefore unique.

They (Kutch's inland mangroves) are in fact among the very few, maybe three-four, of their kind recorded in the world. The others are in Brazil, Peru and South America.

The Arabian sea receded by 100-150 kms from the coastline, resulting in the **inland mangroves of Guneri and Shravan Kavadia which survived because of continued supply of brackish or saline water underground**. Experts therefore believe that these mangroves belong to ancient biogenetic pools. The good underground supply of brackish water, which helps in dispersal of seeds and propagation.

- 4) The government has amended the Environment Protection Act to drop the mandatory washing of coal supplied to thermal power plants. In this context what are the benefits of using washed coal.
 - 1. Washing coal increases the efficiency and quality of the dry fuel.
 - 2. Thermal power plants would have fewer operational problems.
 - 3. The combustion of washed coal would be better from an emissions and local air pollution perspective.

Which of the above statements is/are correct?

- a) 1, 2
- b) 1, 3
- c) 2, 3
- d) 1, 2, 3

Solution: d)

Washing coal increases the efficiency and quality of the dry fuel.

In theory, a process like coal washing was supposed to be good for everyone; **thermal power plants would have fewer operational problems.**

The combustion of washed coal would be better from an emissions and local air pollution perspective, and the unnecessary transport of large amounts of ash and non-combustible material would be minimized.

- 5) Consider the following statements.
 - 1. The Earth's axis of rotation is the line along which it spins around itself as it revolves around the Sun.
- 2. The Earth's axis always remains constant and the points on which the axis intersects the planet's surface are the geographical north and south poles.

Which of the above statements is/are correct?

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

Solution: a)

Rising sea levels, heatwaves, melting glaciers and storms are some of the well-known consequences of **climate** change. New research has added yet another impact to this list – marked shifts in the axis along which the Earth rotates.

The Earth's axis of rotation is the line along which it spins around itself as it revolves around the Sun. The points on which the axis intersects the planet's surface are the geographical north and south poles. The location of the poles is not fixed, however, as the axis moves due to changes in how the Earth's mass is distributed around the planet. Thus, the poles move when the axis moves, and the movement is called "polar motion".

Source

- 6) Consider the following statements regarding Ramsar Convention on Wetlands of International Importance.
- 1. The Ramsar Convention on Wetlands of International Importance Especially as Waterfowl Habitat is a treaty for conservation and sustainable use of wetlands.
- 2. It aims to develop a global network of wetlands for conservation of biological diversity and for sustaining human life.
- 3. International Union for Conservation of Nature (IUCN) is one of the international organization partners (IOPs) of Ramsar Convention that provide expert technical advice and financial support.

Which of the above statements is/are correct?

a) 1, 2

b) 1, 3

c) 2, 3 d) 1, 2, 3

Solution: d)

The Ramsar Convention on Wetlands of International Importance Especially as Waterfowl Habitat is a treaty for conservation and sustainable use of such sites. It is named after Ramsar, the Iranian city where the treaty was signed in 1971, and places chosen for conservation under it are given the tag 'Ramsar site.'

The convention, signed in 1971 in the Iranian city of Ramsar, is one of the oldest inter-governmental accord for preserving the ecological character of wetlands.

Also known as the Convention on Wetlands, it aims to develop a global network of wetlands for conservation of biological diversity and for sustaining human life. Wetlands provide a wide range of important resources and ecosystem services such as food, water, fibre, groundwater recharge, water purification, flood moderation, erosion control and climate regulation.

Over 171 countries are party to the Ramsar Convention and over 2,300 designated sites have been recognised under it.

The Ramsar Convention works closely with six other organisations known as international organization partners (IOPs). These are:

- BirdLife International
- International Union for Conservation of Nature (IUCN)
- International Water Management Institute (IWMI)
- Wetlands International
- WWF International
- Wildfowl & Wetlands Trust (WWT)

These organizations support the work of the convention by **providing expert technical advice**, **helping implement field studies**, **and providing financial support**. The IOPs also participate regularly as observers in all meetings of the conference of the parties and as full members of the Scientific and Technical Review Panel.

- 7) Consider the following statements regarding UNESCO World Heritage Sites in India.
 - 1. India is home to more than 40 UNESCO World Heritage Sites.
 - 2. The Jaipur City was the latest to be added to the World Heritage Sites list under the Culture category.
 - 3. Kaziranga National Park is the only one classified as the 'Mixed Category' site.

Which of the above statements is/are correct?

- a) 1, 2
- b) 1, 3
- c) 2, 3
- d) 2 only

Solution: d)

India is home to 38 UNESCO World Heritage Sites, out of the 1121 such spots identified around the world. So far, only China, Italy, Spain, Germany, and France have more locations on the list than India.

ICOMOS in 1982 had decided to celebrate April 18 as the International Day for Monuments and Sites or World Heritage Day. Approved by UNESCO in 1983 during its 22nd General Conference, the day is dedicated to recognising sites of historical importance, raising awareness regarding them, and stressing the need to restore and preserve them.

Currently, there are 38 World Heritage Sites located in India. Of these, 30 are 'cultural', such as the Ajanta Caves, Fatehpur Sikri, Hampi monuments and the Mountain Railways of India, and 7 are 'Natural', including Kaziranga, Manas and Nanda Devi National Parks. One is classified as 'Mixed', the Khangchendzonga National Park. In 2019, 'Jaipur City' became the 38th addition to the India list under Culture.

Cultural (30)

Agra Fort (1983)

Ajanta Caves (1983)

Archaeological Site of Nalanda Mahavihara at Nalanda, Bihar (2016)

Buddhist Monuments at Sanchi (1989)

Champaner-Pavagadh Archaeological Park (2004)

Chhatrapati Shivaji Terminus (formerly Victoria Terminus) (2004)

Churches and Convents of Goa (1986)

Elephanta Caves (1987)

Ellora Caves (1983)

Fatehpur Sikri (1986)

Great Living Chola Temples (1987,2004)

Group of Monuments at Hampi (1986)

Group of Monuments at Mahabalipuram (1984)

Group of Monuments at Pattadakal (1987)

Hill Forts of Rajasthan (2013)

Historic City of Ahmadabad (2017)

Humayun's Tomb, Delhi (1993)

Jaipur City, Rajasthan (2019)

Khajuraho Group of Monuments (1986)

Mahabodhi Temple Complex at Bodh Gaya (2002)

Mountain Railways of India (1999,2005,2008)

Qutub Minar and its Monuments, Delhi (1993)

Rani-ki-Vav (the Queen's Stepwell) at Patan, Gujarat (2014)

Red Fort Complex (2007)

Rock Shelters of Bhimbetka (2003)

Sun Temple, Konârak (1984)

Taj Mahal (1983)

The Architectural Work of Le Corbusier, an Outstanding Contribution to the Modern Movement (2016)

The Jantar Mantar, Jaipur (2010)

Victorian Gothic and Art Deco Ensembles of Mumbai (2018)

Natural (7)

Great Himalayan National Park Conservation Area (2014)

Kaziranga National Park (1985)

Keoladeo National Park (1985)

Manas Wildlife Sanctuary (1985)

Nanda Devi and Valley of Flowers National Parks (1988,2005)

Sundarbans National Park (1987)

Western Ghats (2012)

Mixed (1)

Khangchendzonga National Park (2016)

Source

- 8) Lonar lake in Maharashtra was added to the list of recognised Ramsar sites. What does it mean?
 - 1. Facilitate development of lake and policies for its wise use.
 - 2. Encourage international cooperation and expert advice on problems of Lonar wetland.
- 3. Help ensure survival of representative natural eco-systems of Lonar as well as rare and endemic species Which of the above statements is/are correct?
 - a) 1, 2
 - b) 1, 3
 - c) 2, 3
 - d) 1, 2, 3

Solution: d)

The world-famous Lonar crater in Buldhana district was added to 'Ramsar sites', getting the highest level of protection.

WHAT IT MEANS

- * Increased publicity and prestige for Lonar wetlands
- * Access to aid through grant fund
- * Facilitate development of lake, policies for its wise use
- * Encourage international cooperation and expert advice on problems of Lonar wetland
- * Help ensure survival of representative natural eco-systems of Lonar as well as rare and endemic species
- 9) Consider the following statements.
 - 1. A fault is a fracture or zone of fractures between two blocks of rock.
- 2. Himalayan Frontal Thrust (HFT) is a geological fault along the boundary of the Indian and Eurasian tectonic plates.
- 3. The collision zone between India and Eurasia along the Himalayan mountain range has one of the highest seismic hazards in the world.

Which of the above statements is/are correct?

- a) 1, 2
- b) 1, 3
- c) 2, 3
- d) 1, 2, 3

Solution: d)

Himalayan Frontal Thrust (HFT) also known as the Main Frontal Thrust (MFT), is a geological fault along the boundary of the Indian and Eurasian tectonic plates. The Kopili Fault is a 300-km northwest-southeast trending fault from the Bhutan Himalaya to the Burmese arc.

A fault is "a fracture along which the blocks of crust on either side have moved relative to one another parallel to the fracture". When an earthquake occurs on one of these faults, the rock on one side of the fault slips with respect to the other. The fault surface can be vertical, horizontal, or at some angle to the surface of the earth. The Northeast is located in the highest seismological zone.

The collision zone between India and Eurasia along the tremendous Himalayan mountain range has one of the highest seismic hazards in the world.

Source

- 10) Consider the following statements.
- 1. While La Niña conditions enhance the rainfall associated with the Northeast monsoon, it has a negative impact on rainfall associated with the Southwest monsoon.

2. During El Niño, there is abnormal surface warming observed along the eastern and central regions of the Pacific Ocean.

Which of the above statements is/are correct?

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

Solution: b)

While El Niño (Spanish for 'little boy'), the expression heard more commonly in India, is the **abnormal surface** warming observed along the eastern and central regions of the Pacific Ocean (region between Peru and Papua New Guinea), La Niña (Spanish for 'little girl') is an abnormal cooling of these surface waters.

Together, the El Niño and La Niña phenomena are termed as El Niño Southern Oscillation (ENSO). These are large-scale ocean phenomena which inflence the global weather — winds, temperature and rainfall. They have the ability to trigger extreme weather events like droughts, floods, hot and cold conditions, globally.

While La Niña conditions enhance the rainfall associated with the Southwest monsoon, it has a negative impact on rainfall associated with the Northeast monsoon.

- 11) Consider the following statements regarding Pilibhit Tiger Reserve.
 - 1. It is located in Assam.
- 2. The Pilibhit Tiger Reserve was awarded the TX2 award for doubling its population of wild tigers since 2010.

Which of the above statements is/are correct?

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

Solution: b)

With 65 individuals recorded in 2018, the **Pilibhit Tiger Reserve in Uttar Pradesh also won the TX2 award for doubling its population of wild tigers since 2010.** The reserve is a source site for tigers and important for connectivity across the vast Terai Arc Landscape of India and Nepal.

TX2 stands for "Tigers times two", signalling the goal to double the population of wild tigers by 2022.

- 12) Consider the following statements regarding Pangolins.
- 1. Pangolins, despite being listed in Schedule I of Wildlife (Protection) Act, 1972 continue to be the world's most trafficked mammal.
- 2. According to the International Union for Conservation of Nature, Indian pangolins and Chinese pangolins are classified as critically endangered.
 - 3. The Chinese pangolin is found in the northeastern part of India.

Which of the above statements is/are correct?

- a) 1, 2
- b) 1, 3
- c) 2, 3
- d) 1 only

Solution: b)

Pangolins, despite being listed in Schedule I of Wildlife (Protection) Act, 1972 continue to be the world's most trafficked mammal. The primary demand for its scales in the making of traditional East Asian medicines has led to an estimated illegal trade worth \$2.5 billion every year. To enforce the appropriate national and international

laws and to track the decline of the species, researchers of Zoological Survey of India (ZSI), Kolkata, have now developed tools to tell apart the scales of Indian pangolin (Manis crassicaudata) and Chinese pangolin (Manis pentadactyla).

According to the International Union for Conservation of Nature, **Indian pangolins are endangered and the Chinese pangolins are critically endangered.**

Though the **Chinese pangolin** is distributed mostly in Vietnam, Thailand, Cambodia, **the northeastern part of our country is also its home.**

Source

- 13) Consider the following statements.
- 1. The Intergovernmental Panel on Climate Change (IPCC) 1.5°C report calls for global carbon emissions to reach net-zero by 2050.
- 2. In India, agriculture sector accounts for the single largest source of greenhouse gas emissions. Which of the above statements is/are correct?
 - a) 1 only
 - b) 2 only
 - c) Both 1 and 2
 - d) Neither 1 nor 2

Solution: a)

The Intergovernmental Panel on Climate Change (IPCC) 1.5°C report called for global carbon emissions to reach net-zero by 2050.

Electricity sector, which is the single largest source (about 40%) of India's greenhouse gas emissions.

Source

- 14) Consider the following statements regarding Green bonds.
- 1. Green bonds are debt instruments that can be used by governments and their entities, international organisations as well as the private sector to raise money for projects that contribute to climate mitigation or adaptation.
- 2. India is one of the largest issuers of Green bonds by the Central and state governments. Which of the above statements is/are correct?
 - a) 1 only
 - b) 2 only
 - c) Both 1 and 2
 - d) Neither 1 nor 2

Solution: a)

Since the first sovereign issuance by Poland in 2016, 22 countries have issued sovereign green bonds, raising more than \$80 billion.

Green bonds are debt instruments that can be used by governments and their entities, international organisations as well as the private sector to raise money for projects that demonstratively contribute to climate mitigation or adaptation. With more than \$1 trillion of cumulative issuances to date, green bonds have come a long way since their inception in 2007 and the first sovereign issuance in 2016.

In India, the Securities Exchange Board of India (SEBI) introduced disclosure requirements for the issuance and listing of green bonds in 2017. Since then, India has become the second-largest issuer of green bonds (after China) among emerging markets with cumulative issues worth more than \$10 billion by private companies and public sector entities such as the State Bank of India (SBI). However, there has been no green bond issuance yet by either the Central or state governments.

Source

- 15) Recently the French National Assembly approved the creation of an "Ecocide" offence. Which of the following rightly describes the term "Ecocide"?
 - a) Economic impact due to rising Bad loans
 - b) Causing Environmental pollution by burning fossil fuels
 - c) Any action capable of producing an ecological disaster
 - d) Causing massive collapse in the Economic system

Solution: c)

The French National Assembly on Saturday approved the creation of an "ecocide" offence as part of a battery of measures aimed at protecting the environment and tackling climate change.

Ecocide is "the massive contamination of air, land and water," or "any action capable of producing an ecological disaster.

Source

- 16) Consider the following statements.
- 1. Any tropical cyclone requires energy to stay alive and this energy is obtained from warm water and humid air over the tropical ocean.
- 2. In the past few years, annually a greater number of cyclones are developing over Arabian Sea than Bay of Bengal due to warm water and humid air over the Arabian Sea.

Which of the above statements is/are correct?

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

Solution: a)

Any tropical cyclone requires energy to stay alive. This energy is typically obtained from warm water and humid air over the tropical ocean.

The more the heat released through condensation of water vapour, the steeper the drop in pressure. A low-pressure system undergoes multiple stages of intensification to form cyclones.

Typically, tropical cyclones in the North Indian Ocean region (Bay of Bengal and Arabian Sea) develop during the pre-monsoon and post-monsoon (October to December) periods. May-June and October-November are known to produce cyclones of severe intensity that affect the Indian coasts.

Annually, five cyclones on average form in the Bay of Bengal and the Arabian Sea combined. Of these, four develop in the Bay of Bengal, which is warmer than the Arabian Sea. In the Arabian Sea, cyclones typically develop over Lakshadweep area and largely traverse westwards, or away from India's west coast.

However, in recent years, meteorologists have observed that the Arabian Sea, too, has been warming. This is a phenomenon associated with global warming.

Source

- 17) The term Haloclasty refers to?
 - a) A method of mining cryptocurrency
 - b) Quantum Key Distribution technology

- c) Laser enabled equipment mounted on a Helicopter
- d) Type of physical weathering caused by the growth of salt crystals

Solution: d)

Researchers have reported that Pleistocene-era rock paintings dating back to 45,000-20,000 years ago in cave sites in southern Sulawesi, on the Indonesian island of Sulawesi, are weathering at an alarming rate.

The artwork made with pigments was decaying due to a process known as **haloclasty**, which is triggered by the **growth of salt crystals due to repeated changes in temperature and humidity**, caused by alternating wet and dry weather in the region.

Source

- 18) Consider the following statements regarding Gas Hydrates
 - 1. Gas hydrates are formed when a gas such as methane gets trapped in well-defined cages of water molecules forming crystalline solids.
 - 2. Their decomposition can release large amounts of Carbon Dioxide (CO2) that could impact Earth's climate.
 - 3. Sudden release of pressurized methane gas from ocean base may cause submarine landslides, which in turn can trigger tsunamis.

Which of the above statements is/are correct?

- a) 1 only
- b) 2, 3
- c) 1, 3
- d) 1, 2, 3

Solution: c)

Gas hydrates are ice-like crystalline minerals that form when low molecular weight gas (such as methane, ethane, or carbon dioxide) combines with water and freezes into a solid under low temperature and moderate pressure conditions.

- Most gas hydrates are formed from methane (CH4), which has led to the terms "gas hydrate" and "methane hydrate" often being used interchangeably.
- On Earth, gas hydrates occur naturally in some marine sediments and within and beneath permafrost. They are also speculated to form on other planets.

Hydrate deposits are important for a variety of reasons:

- Gas hydrate deposits may contain roughly twice the carbon contained in all reserves of coal, oil, and conventional natural gas combined, making them a potentially valuable energy resource.
- Their decomposition can release large amounts of methane, which is a greenhouse gas that could impact Earth's climate.
- Sudden release of pressurized methane gas may cause submarine landslides, which in turn can trigger tsunamis.
- 19) Which of the following wildlife sanctuaries and National Parks are located in Assam?
 - 1. Nameri National Park
 - 2. Deepor Beel Bird Sanctuary
 - 3. Gorumara National Park
 - 4. Manas National Park

Select the correct answer code:

- a) 1, 2
- b) 1, 2, 4
- c) 2, 4
- d) 1, 2, 3, 4

Solution: b)

- Nameri National Park, Manas National Park, Kaziranga National Park, Orang National Park and Deepor Beel Bird Sanctuary are located in Assam.
- Gorumara National Park is located in West Bengal.
- 20) Consider the following statements regarding Galathea National Park.
 - 1. Galathea National Park is located in Odisha.
 - 2. It has important Marine Turtle Habitats.
 - 3. It is part of the Man and Biosphere program of UNESCO.

Which of the above statements is/are correct?

- a) 2 only
- b) 1, 2
- c) 1, 3
- d) 2, 3

Solution: d)

Galathea National Park is a National Park located in the Union Territory of Andaman and Nicobar Islands. It is located on the island of Great Nicobar in the Nicobar Islands.

India's National Marine Turtle Action Plan that was under preparation then (it was released on February 1, 2021) had **listed Galathea Bay as one of the 'Important Coastal and Marine Biodiversity Areas' and 'Important Marine Turtle Habitats'** in the country. It is included in Coastal Regulation Zone (CRZ)-I, the zone with maximum protection.

Galathea National Park houses a range of forest types, has one of the best preserved tropical rainforests in the world, is home to 648 species of flora and hosts 330 species of fauna including rare and endemic ones such as the Nicobar wild pig, Nicobar tree shrew, the Great Nicobar crested serpent eagle, Nicobar paradise flycatcher and the Nicobar megapode. It also notes that the park is home to the indigenous Shompen community.

Giant leatherback turtle and the Nicobar megapode, two charismatic species for whom Great Nicobar is very important.

Galathea National Park is part of Great Nicobar Biosphere Reserve which is included in the list of Man and Biosphere program of UNESCO.

Source

- 21) Consider the following statements regarding Pacific Football fish.
 - 1. Recently the Pacific Football fish washed ashore on a California coast.
 - 2. It is usually found in deep sea.

Which of the above statements is/are incorrect?

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

Solution: d)

Deep-sea fish with lightbulb on its head mysteriously washes ashore in California

Source

3. Government Schemes and Programmes

- 1) Recently the National Commission for Allied and Healthcare Professions Bill, 2020 (NCAHP) was passed by Parliament. In this context which of the following are considered as Allied and Healthcare Professions.
 - 1. Physiotherapists
 - 2. Nutritionists
 - 3. Medical laboratory professionals
 - 4. Radiotherapy technology professionals
 - 5. Optometrists

Select the correct answer code:

- a) 1, 2, 3, 4
- b) 1, 2, 3, 4, 5
- c) 2, 3, 4, 5
- d) 3, 4, 5

Solution: b)

The National Commission for Allied and Healthcare Professions Bill, 2020 (NCAHP) was passed by Parliament in March.

This legislation provides for regulation and maintenance of standards of education and services by allied and healthcare professionals and the maintenance of a central register of such professionals. It recognises over 50 professions such as **physiotherapists**, **optometrists**, **nutritionists**, **medical laboratory professionals**, **radiotherapy technology professionals**, which had hitherto lacked a comprehensive regulatory mechanism.

The Act aims to establish a central statutory body as a National Commission for Allied and Healthcare Professions. It will be supported by 10 professional councils to frame policies and standards, regulate professional conduct, prescribe qualifications, create and maintain a central register.

Source

- 2) National Disaster Management Authority (NDMA) has recognised which of the following as natural hazards?
 - 1. Forest Fires
 - 2. Heatwave
 - 3. Landslide
 - 4. Outbreaks of epidemic diseases

Select the correct answer code:

- a) 1, 2, 3
- b) 2, 3
- c) 2, 3, 4
- d) 1, 2, 3, 4

Solution: b)

India's National Disaster Management Authority (NDMA) has **not recognised forest fires as natural hazards**. On its website, it has listed cyclone, tsunami, heatwave, landslide, floods and earthquakes under such category.

The reason why we have not listed forest fires as natural hazards is because in India most of such fires are deliberately caused by people mainly for agricultural purposes and, therefore, it is an anthropogenic [man-made] hazard," said a member of the NDMA.

Natural Hazards	Man made Hazards
Cyclone Tsunami Heat Wave Landslide Urban Floods Floods Earthquakes	Chemical Nuclear Biological

Examples **of biological disasters** include outbreaks of epidemic diseases, plant or animal contagion, insect or other animal plagues and infestation.

Source Source

- 3) SVAMITVA scheme, sometimes seen in news is related to
 - a) Survey all rural properties using improved technology
 - b) Agricultural Insurance Scheme
 - c) Income support to farmers' families
 - d) Old age pension scheme for all land holding Small and Marginal Farmers

Solution: a)

SVAMITVA (Survey of villages and mapping with improvised technology in village areas) scheme is a new initiative of the Ministry of Panchayati Raj.

The aim to update rural land records, providing record of rights to village households and issue property cards. SVAMITVA will be implemented across the country in a phased manned over the next four years, covering around 6.62 lakh villages.

The scheme focuses on mapping rural-inhabited lands using drones as land records are inaccurate or do not exist for vast areas across India.

- 4) Telecom Regulatory Authority of India (TRAI) issues orders and directions on subjects such as
 - 1. Tariffs
 - 2. Increasing broadband penetration in India
 - 3. Direct to Home (DTH) services
 - 4. Mobile number portability

Select the correct answer code:

- a) 1, 2, 3
- b) 1, 3, 4
- c) 2, 3, 4
- d) 1, 2, 3, 4

Solution: d)

TRAI regularly issues orders and directions on various subjects such as tariffs, interconnections, quality of service, Direct To Home (DTH) services and mobile number portability.

- 5) Consider the following statements.
- 1. Central government can add or remove a commodity as essential commodity in consultation with state governments, if it is satisfied that it is necessary to do so in public interest, can notify an item as essential.

2. Essential Commodities (Amendment) Act 2020 has added cereals, pulses and oilseeds under the purview of the Act.

Which of the above statements is/are correct?

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

Solution: a)

The Centre, if it is satisfied that it is necessary to do so in public interest, can notify an item as essential, in consultation with state governments.

Essential Commodities (Amendment) Act, 2020 removes foodstuff such as cereals, pulses, potato, onions, edible oilseeds, and oils, from the list of essential commodities, removing stockholding limits on agricultural items produced by Horticulture techniques except under "extraordinary circumstances.

- 6) Consider the following statements regarding Production-Linked Incentive (PLI) scheme.
- 1. The PLI scheme aims to boost domestic manufacturing and cut down on imports by providing cash incentives on incremental sales from products manufactured in India.
- 2. The Ministry of Electronics and Information Technology is the single nodal ministry for the implementation of the PLI scheme.
 - 3. Adding any new sector for PLI scheme will require approval of the Union Cabinet.

Which of the above statements is/are correct?

- a) 1 only
- b) 1, 3
- c) 2, 3
- d) 1, 2

Solution: b)

Production-linked incentive scheme (PLI), instituted in April 2020 for large-scale electronics manufacturing in India, has gained significant traction over the past year. It offers a simple and direct incentive based on incremental sales, designed to **boost domestic manufacturing** and attract large investments in mobile phone and specified electronic component manufacturing units. In November 2020, the PLI scheme was extended to ten more sectors, including food processing, battery storage, automobile components and specialty steel.

The new sectors included under the PLI scheme will be implemented by the respective ministries.

Source Source

- 7) Consider the following statements regarding Van Dhan Scheme.
- 1. The Van Dhan Scheme is an initiative of the Ministry of Development of North Eastern Region and TRIFED.
 - 2. It seeks to improve tribal incomes through value addition of tribal products.
 - 3. The aggregation of tribal produce would be done by SHGs.

Which of the above statements is/are correct?

- a) 1, 2
- b) 2, 3
- c) 1, 3
- d) 1, 2, 3

Solution: b)

The Van Dhan Scheme is an initiative of the **Ministry of Tribal Affairs and TRIFED**. It was launched on 14th April, 2018 and seeks to **improve tribal incomes through value addition of tribal products**.

At State level, the State Nodal Agency for MFPs and the District collectors are envisaged to play a pivot role in scheme implementation at grassroot level. Locally the Kendras are proposed to be managed by a Managing Committee (an SHG) consisting of representatives of Van Dhan SHGs in the cluster.

At unit level, aggregation of produce would be done by SHGs having about 30 members each forming **Van Dhan Vikas 'Samuh'.** The SHGs would also undertake primary value addition of the MFPs.

- 8) Consider the following statements regarding Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA) scheme.
 - 1. MGNREGA aims to provide atleast 100 days of unskilled manual work to all households in India.
 - 2. The Act stipulates a minimum wage-material ratio of 60:40.
 - 3. MGNREGA is to be implemented mainly by gram panchayats (GPs) with the help of contractors.

Which of the above statements is/are correct?

- a) 1, 2
- b) 2 only
- c) 2, 3
- d) 1, 3

Solution: b)

MGNREGA is the largest social security scheme in the world — It aims to enhance livelihood security in rural areas by providing at least 100 days of wage employment in a financial year to every household whose adult members volunteer to do unskilled manual work.

The work is usually on projects to build durable assets like roads, canals, ponds and wells.

The Act stipulates a minimum wage-material ratio of 60:40.

MGNREGA is to be implemented mainly by gram panchayats (GPs). The involvement of contractors is banned.

- 9) Shaphari scheme, recently seen in news is related to
 - a) Certification scheme for aquaculture products
 - b) Agroforestry in the silk sector
 - c) Converting biodegradable waste into compressed biogas (CBG)
 - d) Sustainable development of dairy sector

Solution: a)

The Marine Products Exports Development Authority (MPEDA) has developed a certification scheme for aquaculture products called 'Shaphari', a Sanksrit word that means superior quality of fishery products suitable for human consumption.

The Shaphari scheme is based on the United Nations' Food and Agriculture Organization's technical guidelines on aquaculture certification and will have two components — certifying hatcheries for the quality of their seeds and, separately, approving shrimp farms that adopt the requisite good practices.

Frozen shrimp is India's largest exported seafood item.

Source

- 10) Consider the following statements regarding Supply chain resilience initiative.
- 1. It is an initiative of India, Japan and Australia to achieve supply-chain resilience in the Indo-Pacific region.
 - 2. The idea is to reduce the reliance on China for supply of goods and services.

Which of the above statements is/are correct?

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

Solution: c)

In a move to counter China's dominance of supply chain in the Indo-Pacific region, trade ministers of India, Japan and Australia on Tuesday formally launched the Supply Chain Resilience Initiative (SCRI).

The Supply Chain Resilience Initiative aims to create a virtuous cycle of enhancing supply chain resilience
with a view to eventually attaining strong, sustainable, balanced and inclusive growth in the Indo-pacific
region.

Source

- 11) Consider the following statements regarding Social Security Code, 2020.
- 1. It aims to extend social security to all employees and workers either in the organised or unorganised or any other sectors.
- 2. The social security includes life insurance and disability insurance, health and maternity benefits, provident fund and skill upgradation.

Which of the above statements is/are incorrect?

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

Solution: d)

The Code on Social Security, 2020 is a code to amend and consolidate the laws relating to social security with the goal to extend social security to all employees and workers either in the organised or unorganised or any other sectors.

The Social Security Code, 2020 brings unorganised sector, gig workers and platform workers under the ambit of social security schemes, including life insurance and disability insurance, health and maternity benefits, provident fund and skill upgradation, etc.

The act amalgamates nine central labour enactments relating to social security such as (i) The Employees Compensation Act, 1923, (ii) The Employees State Insurance Act, 1948, (iii) The Employees Provident Fund and Miscellaneous Provisions Act, 1952, (iv) The Employees Exchange (Compulsory Notification of Vacancies) Act, 1959, (v) The Maternity Benefit Act, 1961, (vi) The Payment of Gratuity Act, 1972, (vii) The Cine Workers Welfare Fund Act, 1981, (viii) The Building and Other Construction Workers Cess Act, 1996, and (ix) The Unorganized Workers' Social Security Act, 2008).

- 12) Consider the following statements
- 1. Out of the total installed renewable energy capacity in India, more than two-third of it is comprised of wind and solar energy.
- 2. Out of the total installed renewable energy capacity in India, more than half comes from Gujarat and Rajasthan.

Which of the above statements is/are correct?

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

Solution: a)

As of August 31, 2020, installed renewable energy capacity stood at 88.79 GW, of which solar and wind comprised 35.73 GW and 37.99 GW, respectively. Biomass and small hydro power constituted 10.14 GW and 4.73 GW, respectively.

Gujarat's total renewable capacity crossed the 10,000 MW mark in FY20, making it the third State after Karnataka and Tamil Nadu to have more than 10 GW of installed capacity, according to a Crisil Research report.



4. Science and Technology

- 1) The term 'Muon' recently seen in news is a
 - a) Cryptocurrency
 - b) Malware
 - c) Subatomic particle
 - d) Newly discovered Earth-size planet

Solution: c)

Newly published results of an international experiment hint at the possibility of new physics governing the laws of nature, scientists say. The results of the experiment, which studied a subatomic particle called the muon, do not match the predictions of the Standard Model, on which all particle physics is based, and instead reconfirm a discrepancy that had been detected in an experiment 20 years previously.

The muon g-2 experiment:

- Fermilab, which houses the American particle accelerator, has released the first results from its 'muon g-2' experiment.
- These results spotlight the anomalous behaviour of the elementary particle called the muon. The muon, a heavier cousin of the electron, is expected to have a value of 2 for its magnetic moment, labelled 'g'.
- However, the muon exists not in isolation but embedded in a sea where particles are popping out and vanishing every instant due to quantum effects.
- So, its g value is altered by its interactions with these short-lived excitations.

Source

- 2) Consider the following statements regarding Space Station.
 - 1. A space station is a large spacecraft that remains in low-earth orbit for extended periods of time.
 - 2. International Space Station is the first fully functional Space Station built by five space agencies.
- 3. The ownership and use of International space station is established by intergovernmental treaties and agreements.

Which of the above statements is/are correct?

- a) 2 only
- b) 1, 2
- c) 1, 3
- d) 1, 2, 3

Solution: c)

Russia announced that it would be withdrawing from the International Space Station in 2025, and build and manage its own floating laboratory that will be launched into orbit by 2030.

A space station is essentially a large spacecraft that remains in low-earth orbit for extended periods of time. It is like a large laboratory in space, and allows astronauts to come aboard and stay for weeks or months to carry out experiments in microgravity.

The Mir space station of the former Soviet Union, and later operated by Russia, was functional from 1986 to 2001. The ISS has been in space since 1998, and has been known for the exemplary cooperation between the five participating space agencies that have been running it: NASA (United States), Roscosmos (Russia), JAXA (Japan), ESA (Europe), and CSA (Canada).

The ownership and use of the space station is established by intergovernmental treaties and agreements.

As per NASA, 243 people from 19 countries have so far visited the ISS, and the floating laboratory has hosted more than 3,000 research and educational investigations from researchers in 108 countries and areas, carrying

out cutting edge research in various disciplines, including biology, human physiology, and physical, material and space science.

Source

- 3) Apollo 11 mission is related to
 - a) Collect data on the moon's radiation levels
 - b) Explore the dark side of the Moon
 - c) First manned mission to the Moon.
 - d) Electrodynamics of Moon's Interaction with the Sun

Solution: c)

Apollo 11 became one of the most publicly recognised missions of NASA and was the **first manned mission to the Moon.**

Source

- 4) Consider the following statements.
- 1. Starship is the reusable transportation system Designed by SpaceX for crew and cargo to the Earth's orbit, Moon and Mars.
 - 2. NASA's Artemis programme plans to send humans to the Moon in this decade.

Which of the above statements is/are correct?

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

Solution: c)

Designed by SpaceX, **Starship is a spacecraft** and super-heavy booster rocket meant to act as a **reusable transportation system for crew and cargo to the Earth's orbit, Moon and Mars**. SpaceX has described Starship as "the world's most powerful launch vehicle" with an ability to carry over 100 metric tonnes to the Earth's orbit.

Starship can deliver satellites further and at lower marginal costs than Falcon vehicles and it can ferry both cargo and crew to the International Space Station (ISS). Once developed, Starship is also expected to help carry large amounts of cargo to the Moon, for human spaceflight development and research. Beyond the Moon, the spacecraft is being designed for carrying crew and cargo for interplanetary missions as well.

NASA chose SpaceX to build a lander for its **Artemis programme**, which **plans to send humans to the Moon in this decade.**

Source

- 5) Consider the following statements.
 - 1. A patent provides an enforceable legal right to prevent others from copying the invention.
- 2. A process patent enables any person other than the patent holder to manufacture the patented product by modifying certain processes in the manufacturing exercise.
 - 3. In India only process patent is allowed.

Which of the above statements is/are correct?

- a) 1, 2
- b) 1 only
- c) 1, 3
- d) 1, 2, 3

Solution: a)

A patent represents a powerful intellectual property right, and is an exclusive monopoly granted by a government to an inventor for a limited, pre-specified time. It provides an enforceable legal right to prevent others from copying the invention.

Patents can be either process patents or product patents.

A product patent ensures that the rights to the final product is protected, and anyone other than the patent holder can be restrained from manufacturing it during a specified period, even if they were to use a different process.

A process patent enables any person other than the patent holder to manufacture the patented product by modifying certain processes in the manufacturing exercise.

India moved from product patenting to process patenting in the 1970s, which enabled India to become a significant producer of generic drugs at global scale, and allowed companies like Cipla to provide Africa with anti-HIV drugs in the 1990s. But due to obligations arising out of the TRIPS Agreement, India had to amend the Patents Act in 2005, and switch to a product patents regime across the pharma, chemicals, and biotech sectors.

Source

- 6) Consider the following statements.
 - 1. Asteroids are rocky objects much smaller than planets, that orbit the Sun.
- 2. Asteroids were formed after millions of years after the formation of planets and other objects in the solar system.
- 3. OSIRIS-Rex is European Space Agency's (ESA) first mission to return a sample from an asteroid. Which of the above statements is/are correct?
 - a) 1, 2
 - b) 1 only
 - c) 1, 3
 - d) 2, 3

Solution: b)

Asteroids are rocky objects that orbit the Sun, much smaller than planets. They are also called minor planets. According to NASA, 994,383 is the count for known asteroids, the remnants from the formation of the solar system over 4.6 billion years ago.

Scientists study asteroids to look for information about the formation and history of planets and the sun since asteroids were formed at the same time as other objects in the solar system. Another reason for tracking them is to look for potentially hazardous asteroids.

OSIRIS-REx mission is NASA's first mission meant to return a sample from the ancient asteroid.

Source

- 7) Consider the following statements regarding Aditya-L1 mission.
 - 1. It is India's first solar mission.
 - 2. Satellite will be placed at 36000 km above the surface of the Earth.
 - 3. It will be launched on PSLV launch vehicle.

Which of the above statements is/are correct?

- a) 1 only
- b) 1, 2
- c) 1, 3

d) 1, 2, 3

Solution: c)

Aditya – L1 First Indian mission to study the Sun:

- The Aditya-1 mission was conceived as a 400kg class satellite carrying one payload, the Visible Emission Line Coronagraph (VELC) and was planned to launch in a 800 km low earth orbit.
- A Satellite placed in the halo orbit around the Lagrangian point 1 (L1) of the Sun-Earth system has the major advantage of continuously viewing the Sun without any occultation/ eclipses.
- Therefore, the Aditya-1 mission has now been revised to "Aditya-L1 mission" and will be inserted in a halo orbit around the L1, which is 1.5 million km from the Earth.
- The satellite carries additional six payloads with enhanced science scope and objectives.
- It is planned to be launched on the PSLV-C56 in December 2021 or January 2022.
- 8) Consider the following statements regarding Li-Fi Technology.
- 1. Li-Fi is a wireless technology that makes use of High frequency radio waves to transmit data at terabits per second speeds.
 - 2. Li-Fi can work underwater, where Wi-Fi fails completely.

Which of the above statements is/are correct?

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

Solution: b)

Li-Fi, or light fidelity, invented by German physicist and professor Harald Haas, is a wireless technology that **makes use of visible light in place of radio waves** to transmit data at terabits per second speeds—more than 100 times the speed of Wi-Fi.

Li-Fi offers great promise to overcome the existing limitations of Wi-Fi by providing for data-heavy communication in short ranges.

Li-Fi can also easily work underwater, where Wi-Fi fails completely, thereby throwing open endless opportunities for military and navigational operations.

Source

- 9) Consider the following statements regarding Sunspots:
 - 1. Sunspots are darker, cooler areas on the surface of the sun in a region called Corona.
- 2. They are regions of reduced surface temperature caused by concentrations of magnetic field flux that inhibit convection.

Which of the above statements is/are correct?

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

Solution: b)

Sunspots are temporary phenomena on the Sun's photosphere that appear as spots darker than the surrounding areas. They are regions of reduced surface temperature caused by concentrations of magnetic field flux that inhibit convection.

10) Supercomputing play an important role in which of the following fields?

- 1. Quantum mechanics
- 2. Weather forecasting
- 3. Oil and gas exploration
- 4. Genomics
- 5. Drug discovery

Select the correct answer code:

- a) 1, 2, 3, 4
- 2) 2, 3, 4, 5
- c) 1, 2, 3, 4, 5
- d) 1, 3, 4, 5

Solution: c)

Supercomputers are used for a wide range of computationally intensive tasks in various fields, including quantum mechanics, weather forecasting, flood prediction, climate research, oil and gas exploration, genomics and drug discovery.

- 11) Earth-observation satellites are used for which of the following purposes?
 - 1. Land and forest monitoring
 - 2. Mapping of water and mineral resources
 - 3. Weather and climate observations
 - 4. Soil assessment

Select the correct answer code:

- a) 1, 2, 3
- b) 1, 3, 4
- c) 2, 3, 4
- d) 1, 2, 3, 4

Solution: d)

What are earth-observation satellites used for?

- Land and forest mapping and monitoring, mapping of resources like water or minerals or fishes, weather and climate observations, soil assessment, geospatial contour mapping are all done through earth-observation satellites.
- They are intended for non-military uses such as environmental monitoring, meteorology, cartography and others.
- 12) Reverse Osmosis Systems can remove
 - 1. Metal ions
 - 2. Aqueous salts
 - 3. Bacteria
 - 4. Lead

Select the correct answer code:

- a) 1, 2, 3
- b) 1, 3, 4
- c) 2, 3
- d) 1, 2, 3, 4

Solution: d)

Reverse osmosis can remove many types of dissolved and suspended chemical species as well as biological ones (principally bacteria) from water.

Reverse Osmosis Systems will remove common chemical contaminants (metal ions, aqueous salts), including sodium, chloride, copper, chromium, and lead; may reduce arsenic, fluoride, radium, sulfate, calcium, magnesium, potassium, nitrate, and phosphorous.

- 13) Consider the following statements regarding Brain fingerprinting.
- 1. Brain fingerprinting is a method of interrogation in which the accused's participation in the crime is investigated by studying their brain's response.
 - 2. It is conducted to study the electrical behaviour of the human brain.

Which of the above statements is/are incorrect?

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

Solution: d)

Brain Electrical Oscillation Signature Profiling (BEOSP) also known as brain fingerprinting is a neuro psychological method of interrogation in which the accused's participation in the crime is investigated by studying their brain's response. The BEOSP test is carried out via a process known as electroencephalogram, conducted to study the electrical behaviour of the human brain.

The BEOSP procedure does not involve a question answer session with the accused and is rather a neuro psychological study of their brain.

In 2010, the Supreme Court passed a judgment in the Selvi versus State of Karnataka case where the bench observed that narco analysis, polygraph and brain mapping tests cannot be forced upon any individual without their consent and the test results cannot be admitted solely as evidence. However, any information or material discovered during the tests can be made part of the evidence, observed the bench.

- 14) Consider the following statements.
 - 1. Hydrogen is lighter than air.
 - 2. Hydrogen is the most abundant chemical substance in the universe
 - 3. In India, Hydrogen is primarily produced from renewable energy sources.

Which of the above statements is/are correct?

- a) 2 only
- b) 1, 2
- c) 1, 3
- d) 1, 2, 3

Solution: b)

Hydrogen is the lightest element in the periodic table. Hydrogen is the most abundant chemical substance in the universe.

Currently, India consumes around 5.5 million tonnes of hydrogen, primarily produced from imported fossil fuels.

Source

- 15) The term 'Data Scraping' sometimes seen in news, rightly denotes
 - a) Process of deleting data from a website
 - b) Restricting data access from a website
 - c) Process of extracting data from a website
 - d) Modifying the original data content in a website

Solution: c)

Data scraping, or web scraping, is the process of extracting data from a website. Scraper bots are designed to derive information from these websites. A user designing a bot to extract data is called a scraper.

Source

- 16) Consider the following statements regarding Trans fats.
 - 1. Trans fatty acids are formed during industrial partial hydrogenation of vegetable oil.
 - 2. High intake of Trans fats reduces low density lipoproteins (LDL) and insulin levels.

Which of the above statements is/are correct?

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

Solution: a)

All natural fats and oils are a combination of monounsaturated, polyunsaturated and saturated fatty acids. Trans fatty acids are formed during industrial partial hydrogenation of vegetable oil, a process widely commercialized to produce solid fats.

Trans fat increases low density lipoproteins (LDL), triglycerides and insulin levels and reduces beneficial high density lipoproteins (HDL).

Source

- 17) Consider the following statements.
- 1. A patent is a conferral by the state of an exclusive right to make, use and sell an inventive product or process.
- 2. Patent laws are usually justified on the ground that people have something of a natural and moral right to claim control over their inventions.

Which of the above statements is/are correct?

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

Solution: c)

A patent is a conferral by the state of an exclusive right to make, use and sell an inventive product or process. Patent laws are usually justified on three distinct grounds: on the idea that people have something of a natural and moral right to claim control over their inventions; on the utilitarian premise that exclusive licenses promote invention and therefore benefit society as a whole; and on the belief that individuals must be allowed to benefit from the fruits of their labour and merit, that when a person toils to produce an object, the toil and the object become inseparable.

- 18) Antimicrobial resistance (AMR) emerges for which of the following reasons?
 - 1. Misuse of antimicrobials in medicine
 - 2. Inappropriate use of antimicrobials in agriculture
- 3. Contamination around pharmaceutical manufacturing sites due to the release of large amounts of active antimicrobials into the environment.

Select the correct answer code:

- a) 1, 2
- b) 1, 3
- c) 2, 3
- d) 1, 2, 3

Solution: d)

Drug resistance in microbes emerges for several reasons. These include the misuse of antimicrobials in medicine, inappropriate use in agriculture, and contamination around pharmaceutical manufacturing sites where untreated waste releases large amounts of active antimicrobials into the environment. All of these drive the evolution of resistance in microbes.

Source

- 19) Iron Dome, recently seen in news is
 - a) Diesel Electric attack submarine
 - b) Navigation system
 - c) Air defence system
 - d) Facial recognition tracking (FRT) system

Solution: c)

Iron Dome is a mobile all-weather air defense system developed by Rafael Advanced Defense Systems and Israel Aerospace Industries. The system is designed to intercept and destroy short-range rockets and artillery shells.

- 20) Winchcombe, recently seen in news is a
 - a) Geostationary satellite
 - b) Ultraviolet Imaging Telescope
 - c) Meteorite
 - d) Asteroid

Solution: c)

A piece of the **Winchcombe meteorite** that touched down in the town of Winchcombe in Gloucestershire in the UK in February 2021.

Winchcombe is also significant because it is the meteorite to have fallen and recovered from the UK in about 30 years. Further, this type of meteorite is known as a **carbonaceous meteorite** and out of about 65,000 known meteorite types, only about 1,000 are of this particular type.



Source

- 21) Consider the following statements regarding Mucormycosis.
 - 1. Mucormycosis is a fungal infection caused by a group of molds called mucormycetes.
 - 2. Soil, plants, manure, and decaying fruits and vegetables are the common sources of infection.
- 3. It affects the sinuses, the brain and the lungs and can be life-threatening in diabetic and cancer patients.

Which of the above statements is/are correct?

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- a) 1, 2
- b) 1, 3
- c) 2, 3
- d) 1, 2, 3

Solution: d)

Mucormycosis is a serious but rare fungal infection caused by a group of molds called mucormycetes. These molds live throughout the environment. It is caused by exposure to mucor mould which is commonly found in soil, plants, manure, and decaying fruits and vegetables.

It affects the sinuses, the brain and the lungs and can be life-threatening in diabetic or severely immunocompromised individuals, such as cancer patients or people with HIV/AIDS.

Source Source

- 22) Consider the following statements regarding non-fungible token (NFT).
 - 1. NFTs are unique digital assets with each token representing a unique value.
 - 2. NFT is not interchangeable in nature.
 - 2. NFTs include digital real estate, digital art and music.

Which of the above statements is/are correct?

- a) 1.2
- b) 1, 3
- c) 2, 3
- d) 1, 2, 3

Solution: d)

NFT is a one-of-its-kind asset that is **not interchangeable in nature**. It means that the NFT is not replaceable by another 'identical' item.

For example, if two individuals hold a bitcoin each, they can exchange their bitcoins, which are a replica of each other and have the same value. However, NFTs are not interchangeable, as they are more like pieces of art where each and every token is unique in itself. While bitcoins are also digital assets, **NFTs are unique digital assets with each token representing a unique value.**

NFTs have evolved to include digital real estate, video game items, digital art and music.

Source

- 23) Consider the following statements regarding Zeolites.
 - 1. The Zeolites are naturally formed when the volcanic rocks react with alkaline ground water.
 - 2. The naturally occurring zeolites are more pure compared to those produced industrially.
 - 3. Zeolite is used in oxygen production plants.

Which of the above statements is/are correct?

- a) 1, 2
- b) 1, 3
- c) 2, 3
- d) 3 only

Solution: b)

Air India airlifted 35 tonnes of **zeolite mineral used in oxygen production plants** on two flights from Rome to Bengaluru.

Zeolite is used in oxygen production plants that are based on pressure swing adsorption (PSA) technology.

- Zeolites are microporous, aluminosilicate minerals commonly used as commercial adsorbents and catalysts.
- Zeolites occur naturally but are also produced industrially on a large scale.
- Natural zeolites form where volcanic rocks and ash layers react with alkaline groundwater.
- Naturally occurring zeolites are rarely pure and are contaminated to varying degrees by other minerals, metals, quartz, or other zeolites. For this reason, naturally occurring zeolites are excluded from many important commercial applications where uniformity and purity are essential.

Source Source

- 24) Consider the following statements regarding Quasars.
 - 1. Quasars are very luminous objects in faraway galaxies.
 - 2. They are not found in galaxies that have supermassive blackholes.

Which of the above statements is/are correct?

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

Solution: a)

An international team of astronomers have discovered the most distant 'radio-loud' quasar with the help of European Southern Observatory's Very Large Telescope (ESO's VLT). It took 13 billion years for the quasar's light to reach earth, according to a paper published in The Astrophysical Journal March 8, 2021.

Quasars are very luminous objects in faraway galaxies that emit jets at radio frequencies. They are only found in galaxies that have supermassive blackholes which power these bright discs. However, 90 per cent of them do not emit strong radio waves, making this newly-discovered one special.

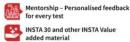
Most active galaxies have a supermassive black hole at the centre which sucks in surrounding objects. Quasars are formed by the energy emitted by materials spiralling around a blackhole right before being sucked into it.

Source



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5. International Relations and Organisations

- 1) Which of the following countries are members of both BIMSTEC and ASEAN?
 - 1. Myanmar
 - 2. Cambodia
 - 3. Thailand
 - 4. Bhutan

Select the correct answer code:

- a) 1, 2, 3
- b) 1, 3, 4
- c) 1, 3
- d) 2, 3, 4

Solution: c)

The BIMSTEC member states – Bangladesh, Bhutan, India, Myanmar, Nepal, Sri Lanka, and Thailand.



- 2) Maitri Setu, recently seen in news is a link between
 - a) India and Nepal
 - b) India and Bhutan
 - c) India and Bangladesh
 - d) India and Myanmar

Solution: c)

Prime Minister Narendra Modi virtually inaugurated the India-Bangladesh Friendship Bridge (Maitri Setu) over the Feni river at Sabroom in south Tripura.

Source

- 3) Consider the following statements regarding The Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation (BIMSTEC).
 - 1. It comprises of eight Member States lying in the littoral and adjacent areas of the Bay of Bengal.
 - 2. It came into being through the Bangkok Declaration.
 - 3. It is an implicit free trade agreement among the member nations.

Which of the above statements is/are incorrect?

- a) 1, 2
- b) 2 only
- c) 1, 3
- d) 2, 3

Solution: c)

The Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation (BIMSTEC) is a regional organization comprising **seven Member States** lying in the littoral and adjacent areas of the Bay of Bengal constituting a contiguous regional unity.

This sub-regional organization came into being in 1997 through the **Bangkok Declaration**. It constitutes seven Member States: five deriving from South Asia, including Bangladesh, Bhutan, India, Nepal, Sri Lanka, and two from Southeast Asia, including Myanmar and Thailand.

It is not an FTA. IT is a sector-driven organization focussing on sharing best practices and help each other in agriculture, public health, poverty alleviation, counter-terrorism, environment, culture etc. A BIMSTEC free trade agreement is under negotiation.

- 4) Consider the following statements regarding Bandung Conference, 1955.
 - 1. It was organized to promote Afro-Asian economic and cultural cooperation.
 - 2. The conference was an important step towards the creation of the Non-Aligned Movement.
 - 3. The first Africa-India Summit was organized on the side-lines of the conference.

Which of the above statements is/are correct?

- a) 1, 2
- b) 1 only
- c) 1, 3
- d) 1, 2, 3

Solution: a)

The first large-scale **Afro–Asian Conference**—also known as the **Bandung Conference** was a meeting of Asian and African states, most of which were newly independent, which took place on 18–24 April **1955** in Bandung, West Java, Indonesia.

The conference's stated aims were to promote Afro-Asian economic and cultural cooperation and to oppose colonialism or neocolonialism by any nation. The conference was an important step towards the eventual creation of the Non-Aligned Movement.

The first Africa-India Summit was held in 2008 in New Delhi.

<u>Source</u>

- 5) Generation AI (artificial intelligence) is the initiative of
 - a) Global Artificial Intelligence network
 - b) UNICEF
 - c) International Telecommunication Union
 - d) World Bank Group

Solution: b)

UNICEF's Generation Al initiative is currently working with the World Economic Forum's Centre for the Fourth Industrial Revolution and other stakeholders to realiae the potential of AI for children in a safe and transparent way.

Source

- 6) Consider the following statements regarding Convention on the Rights of the Child.
- 1. It is a legally-binding international agreement setting out the civil, political, economic, social and cultural rights of every child.
- 2. Governments are required to meet children's basic needs and help them reach their full potential. Which of the above statements is/are correct?
 - a) 1 only
 - b) 2 only
 - c) Both 1 and 2
 - d) Neither 1 nor 2

Solution: c)

The **United Nations Convention on the Rights of the Child (UNCRC)** is a legally-binding international agreement setting out the **civil, political, economic, social** and **cultural rights** of every child, regardless of their race, religion or abilities.

Under the terms of the convention, governments are required to **meet children's basic needs** and help them **reach their full potential**.

The Convention on the Rights of the Child urges all public and private actors to act in the best interests of the child, across all their developmental activities and provision of services.

Source

- 7) Contributing to one world, one health: a strategic framework for reducing risks of infectious diseases at the animal–human–ecosystems interface, is a global initiative of
 - a) Food and Agriculture Organization
 - b) World Health Organization
 - c) United Nations Environment Programme
 - d) All of the above

Solution: d)

India's 'One Health' vision derives its blueprint from the agreement between the **tripartite-plus alliance** comprising the **Food and Agriculture Organization** of the United Nations (FAO), the World Organisation for Animal Health (OIE), the **World Health Organization** (WHO) and the **United Nations Environment Programme** (UNEP) — a global initiative supported by the United Nations Children's Fund (UNICEF) and the World Bank under the overarching goal of contributing to 'One World, One Health'.

Source

- 8) Consider the following statements regarding the principle of non-refoulement under international human rights law.
- 1. The principle of non-refoulement guarantees that no one should be returned to a country where they would face torture, cruel and inhuman treatment.
 - 2. This principle applies to all migrants at all times, irrespective of migration status.

Which of the above statements is/are incorrect?

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

Solution: d)

Under international human rights law, the principle of non-refoulement guarantees that no one should be returned to a country where they would face torture, cruel, inhuman or degrading treatment or punishment and other irreparable harm. This principle applies to all migrants at all times, irrespective of migration status.

Source

- 9) Competitiveness and Resilience Partnership (CoRe), recently seen in news is the initiative between
 - a) India and United States
 - b) United States and Japan
 - c) Japan and Australia
 - d) India, United States, Japan and Australia

Solution: b)

Given China's recent pledge to invest a mammoth \$1.4 trillion in emerging technologies, **Washington and Tokyo** scrambled to close the gap by announcing a Competitiveness and Resilience Partnership, or CoRe. The two allies earmarked billions in funding for the deployment of secure 5G networks, committed to building digital infrastructure in developing countries and promised to collaborate on setting global digital standards. Both sides have also signalled their intent to continue the Trump-era policy of pressure on China to reform economic practices such as "violations of intellectual property rights, forced technology transfer, excess capacity issues, and the use of trade distorting industrial subsidies".

Source

- 10) Consider the following statements regarding Raisina Dialogue.
 - 1. The Raisina Dialogue is India's flagship annual geopolitical and geostrategic conference.
- 2. It is jointly organised by the Ministry of External Affairs (MEA) and Observer Research Foundation (ORF).
- 3. Participation is limited to Foreign and Defence Ministers and select think tanks from member countries. Which of the above statements is/are correct?
 - a) 1, 2
 - b) 1 only
 - c) 1, 3
 - d) 1, 2, 3

Solution: a)

The Raisina Dialogue is a multilateral conference held annually in New Delhi. Since its inception in 2016, the conference has emerged as India's flagship conference on geopolitics and geo-economics. The conference is hosted by the Observer Research Foundation, an independent think tank, in collaboration with the Ministry of External Affairs of India.

The conference is structured as a multi-stakeholder, cross-sectoral discussion, involving a variety of global policymakers including heads of state, cabinet ministers and local government officials. In addition, the Dialogue also welcomes major private sector executives, as well as members of the media and academia. It is designed on the lines of Singapore's Shangri-La Dialogue.

Source

- 11) Consider the following statements regarding Alliance of Small Island States (AOSIS).
- 1. Alliance of Small Island States (AOSIS) is an intergovernmental organization of low-lying coastal and small island countries.
- 2. The main purpose of the alliance is to consolidate the voices of Small Island Developing States (SIDS) to address global warming.
- 3. AOSIS partners with United Nations Development Programme (UNDP) to effectively influence climate negotiations.

Which of the above statements is/are correct?

- a) 1, 2
- b) 1, 3
- c) 2, 3
- d) 1, 2, 3

Solution: d)

AOSIS is a coalition of small island and low-lying coastal developing states. As a voice for the vulnerable, its mandate is more than amplifying marginalised voices as it also advocates for these countries' interests. In terms of size, AOSIS closely resembles the countries it represents on the global stage, but often punches far above its weight, negotiating historic global commitments to cut greenhouse gas emissions, among other achievements.

To achieve its goals, AOSIS often draws on partnerships, including with the United Nations Development Programme (UNDP) and the European Commission, to bolster its capacity to effectively influence climate negotiations, some of the most complex and difficult in the world. AOSIS also makes vital contributions by helping its members to pool their resources and amplify their collective voice in climate talks. This goes beyond just speaking up to securing ambitious agreements with tangible benefits for vulnerable communities.

- 12) Consider the following statements regarding International Criminal Court (ICC).
- 1. International Criminal Court (ICC) is the first permanent, treaty based, international criminal court established to help end impunity for the perpetrators of the most serious crimes of concern to the international community.
- 2. The ICC has universal territorial jurisdiction to investigate and prosecute crimes of international concern.
 - 3. India and U.S. are the members of the court.

Which of the above statements is/are correct?

- a) 1 only
- b) 1, 3
- c) 2, 3
- d) 1, 2

Solution: a)

The International Criminal Court (ICC), located in The Hague, is the court of last resort for prosecution of genocide, war crimes, and crimes against humanity.

It is the first permanent, treaty based, international criminal court established to help end impunity for the perpetrators of the most serious crimes of concern to the international community.

Its founding treaty, the Rome Statute, entered into force on July 1, 2002.

Funding: Although the Court's expenses are funded primarily by States Parties, it also receives voluntary contributions from governments, international organisations, individuals, corporations and other entities.

Composition and voting power:

• The Court's management oversight and legislative body, the Assembly of States Parties, consists of one representative from each state party.

- Each state party has one vote and "every effort" has to be made to reach decisions by consensus. If consensus cannot be reached, decisions are made by vote.
- The Assembly is presided over by a president and two vice-presidents, who are elected by the members to three-year terms.

The ICC lacks universal territorial jurisdiction, and may only investigate and prosecute crimes committed within member states, crimes committed by nationals of member states, or crimes in situations referred to the Court by the United Nations Security Council.

The U.S. government has never been a member of the court.

Some countries have neither signed nor acceded to the Rome Statute. Some of them, including China and India, are critical of the Court.

- 13) Consider the following statements regarding Raisina Dialogue.
 - 1. It is a multilateral conference committed to addressing the most challenging issues facing the global community.
 - 2. It is annually conducted by MEA and Observer Research Foundation (ORF)

Which of the above statements is/are correct?

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

Solution: c)

The 6th Edition of Raisina Dialogue was held virtually. The Raisina Dialogue is India's flagship conference on geopolitics and geoeconomics committed to addressing the most challenging issues facing the global community. It is held annually since 2016. It is jointly organised by the Ministry of External Affairs and the Observer Research Foundation. The theme for the 2021 Edition is "#ViralWorld: Outbreaks, Outliers and Out of Control".

- 14) Consider the following statements regarding BRICS grouping.
 - 1. Not all BRICS members are the members of G20.
- 2. New Development Bank (NDB) is a multilateral development bank operated by the BRICS countries with each country contributing equally to its equity.

Which of the above statements is/are correct?

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

Solution: b)

BRICS is the acronym coined for an association of five major emerging national economies: Brazil, Russia, India, China and South Africa.

The BRICS members are known for their significant influence on regional affairs; all are members of G20.

The **New Development Bank (NDB)**, formerly referred to as the **BRICS Development Bank**, is a multilateral development bank established by the BRICS states. The initial subscribed capital of the bank was equally distributed among the founding members. The Agreement on the NDB specifies that every member will have one vote no one would have any veto powers.

15) Consider the following statements regarding Global compact for migration.

- 1. The global compact for migration is the first, inter-governmentally negotiated agreement to cover all dimensions of international migration.
 - 2. The global compact is a legally binding agreement.
 - 3. It was prepared under the auspices of the United Nations.

Which of the above statements is/are correct?

- a) 1 only
- b) 1, 3
- c) 1, 2
- d) 1, 2, 3

Solution: b)

The global compact for migration is the first, inter-governmentally negotiated agreement, prepared under the auspices of the United Nations, to cover all dimensions of international migration in a holistic and comprehensive manner.

The Global Compact for Migration is the **first-ever UN global agreement** on a common approach to international migration in all its dimensions. **The global compact is non-legally binding.**

- 16) Recently the United States declared its support for a temporary waiver of the Trade-Related Aspects of Intellectual Property Rights (TRIPS) agreement for COVID-19 vaccines at the World Trade Organisation (WTO). Consider the following statements regarding this.
 - 1. TRIPS waiver would lift the legal restrictions on manufacturing COVID-19 vaccines.
- 2. Waiving IP protection will impose a legal requirement on pharmaceutical companies to transfer or share technology.

Which of the above statements is/are correct?

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

Solution: a)

The United States has finally relented and declared its support for a temporary waiver of the Trade-Related Aspects of Intellectual Property Rights (TRIPS) agreement for COVID-19 vaccines at the World Trade Organisation (WTO).

While the U.S.'s decision is to be welcomed, the devil would be in the details.

While the TRIPS waiver would lift the legal restrictions on manufacturing COVID-19 vaccines, it would not solve the problem of the lack of access to technological 'know-how' related to manufacturing COVID-19 vaccines. Waiving IP protection does not impose a legal requirement on pharmaceutical companies to transfer or share technology. While individual countries may adopt coercive legal measures for a forced transfer of technology, it would be too draconian and counterproductive. Therefore, governments would have to be proactive in negotiating and cajoling pharmaceutical companies to transfer technology using various legal and policy tools including financial incentives.

Finally, while a **TRIPS waiver would enable countries to escape WTO obligations, it will not change the nature of domestic IP regulations.** Therefore, countries should start working towards making suitable changes in their domestic legal framework to operationalise and enforce the TRIPS waiver.

Notwithstanding the usefulness of the TRIPS waiver, it is not a magic pill. It would work well only if countries simultaneously address the non-IP bottlenecks such as technology transfer, production constraints, and other logistical challenges such as inadequacy of supply chains and unavailability of raw materials to manufacture vaccines and medicines.

Source

- 17) Consider the following statements.
 - 1. India is the world's largest oil importer.
 - 2. The largest share of India's oil import comes from Iraq.
- 3. Opec+ refers to the alliance of crude producers, who have been undertaking corrections in supply in the oil markets since 2017.

Which of the above statements is/are correct?

- a) 3 only
- b) 1, 2
- c) 2, 3
- d) 1, 2, 3

Solution: c)

Opec+ refers to the alliance of crude producers, who have been undertaking corrections in supply in the oil markets since 2017.

India is the world's third biggest oil importer and consumer, shipping in about 84% of its crude needs, and relies heavily on the Middle East.

Iraq continued to be the top oil seller to India.

Source

- 18) Consider the following statements regarding WHO Executive Board.
 - 1. It is the only decision-making body of WHO.
 - 2. It is composed of members who are technically qualified in the field of health.
 - 3. At present the WHO Executive Board chairman's post is held by India.

Which of the above statements is/are correct?

- a) 2 only
- b) 1, 2
- c) 1, 3
- d) 2, 3

Solution: d)

Union Health Minister Dr Harsh Vardhan is the chairman of the WHO Executive Board. India is a member state of the South East Asia Region at the WHO.

It is one of the WHO's two decision making bodies. The other one is the World Health Assembly. The agency's headquarters are located at Geneva in Switzerland.

Composition:

The executive Board is composed of 34 members technically qualified in the field of health.

The Board chairman's post is held by rotation for one year by each of the WHO's six regional groups: African Region, Region of the Americas, South-East Asia Region, European Region, Eastern Mediterranean Region, and Western Pacific Region.

Term:

Members are elected for three-year terms.

Functions:

• Sets out agenda for the Health Assembly and resolutions for forwarding to the Assembly are adopted.

- Gives effect to the decisions and policies of the Health Assembly.
- Advises it and facilitates its work.
- The Board and the Assembly create a forum for debate on health issues and for addressing concerns raised by Member States.
- Both the Board and the Assembly produce three kinds of documents Resolutions and Decisions passed by the two bodies, Official Records as published in WHO Official publications, and Documents that are presented "in session" of the two bodies.

Source

- 19) Which of the following are the member countries of Organization of the Petroleum Exporting Countries (OPEC)?
 - 1. Algeria
 - 2. Libya
 - 3. Indonesia
 - 4. Venezuela
 - 5. Qatar

Select the correct answer code:

- a) 1, 2, 3, 4
- b) 1, 2, 4, 5
- c) 1, 2, 4
- d) 1, 2, 3, 4, 5

Solution: c)

The current OPEC members are the following: Algeria, Angola, Equatorial Guinea, Gabon, Iran, Iraq, Kuwait, Libya, Nigeria, the Republic of the Congo, Saudi Arabia (the de facto leader), the United Arab Emirates and Venezuela. Ecuador, Indonesia and Qatar are former members.

- 20) Consider the following statements regarding International Energy Agency (IEA).
 - 1. It helps its members respond to major oil supply disruptions.
 - 2. A candidate country to the IEA must be a member country of the OECD.
 - 3. All OECD members are IEA members.

Which of the above statements is/are correct?

- a) 1 only
- b) 1, 2
- c) 1, 3
- d) 1, 2, 3

Solution: b)

International Energy Agency (IEA) was established in the wake of the 1973-1974 oil crisis, to **help its members respond to major oil supply disruptions,** a role it continues to fulfil today.

• IEA's mandate has expanded over time to include tracking and analyzing global key energy trends, promoting sound energy policy, and fostering multinational energy technology cooperation.

Composition and eligibility:

It has 30 members at present. IEA family also includes eight association countries. A candidate country must be a member country of the OECD. But all OECD members are not IEA members.

6. Polity

- 1) Consider the following statements regarding Election Commission of India.
 - 1. It is the constitutional duty of the ECI to ensure that the elections held are free and fair.
- 2. If the chief election commissioner and other election commissioners differ in opinion on any matter, such matter shall be decided according to the opinion of the majority.

Which of the above statements is/are correct?

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

Solution: c)

Elections bring the Election Commission of India (ECI) into sharp focus as this constitutional body superintends, directs and controls the conduct of elections.

It is the constitutional duty of the ECI to ensure that the elections held are free and fair.

The chief election commissioner and the two other election commissioners have equal powers and receive equal salary, allowances and other perquisites, which are similar to those of a judge of the Supreme Court. In case of difference of opinion amongst the Chief election commissioner and/or two other election commissioners, the matter is decided by the Commission by majority.

- 2) Consider the following statements regarding Lok Adalat.
- 1. The first Lok Adalat was organised as a voluntary and conciliatory agency without any statutory backing for its decisions.
 - 2. Lok Adalat is based on Gandhian principles.
- 3. It is an Alternative Dispute Resolution (ADR) system that delivers informal and expeditious justice to the common people.

Which of the above statements is/are correct?

- a) 1, 2
- b) 1, 3
- c) 2, 3
- d) 1, 2, 3

Solution: d)

- The first Lok Adalat camp was organised in Gujarat in 1982 as a voluntary and conciliatory agency without any statutory backing for its decisions.
- In view of its growing popularity over time, it was given statutory status under the Legal Services Authorities Act, 1987. The Act makes the provisions relating to the organisation and functioning of the Lok Adalats.
- The term 'Lok Adalat' means 'People's Court' and is based on Gandhian principles.
- It is one of the components of the Alternative Dispute Resolution (ADR) system and delivers informal, cheap and expeditious justice to the common people.
- 3) The Election Commission registers political parties for the purpose of elections and grants them recognition as national or state parties on the basis of their
 - 1. Poll performance
 - 2. Cadre strength
 - 3. Financial backing
 - 4. Number of elections contested

Select the correct answer code:

- a) 1, 2, 3
- b) 1 only

- c) 2, 3
- d) 1, 2, 4

Solution: b)

A registered party is recognised as a national party only if it fulfils any one of the three conditions listed below:

- 1. A party should win 2% of seats in the Lok sabha from at least three different states.[8]
- 2. At a general election to Lok Sabha or Legislative Assembly, the party polls 6% of votes in any four or more states and in addition it wins four Lok Sabha seats.
- 3. A party gets recognition as a state party in four states.
- 4. A party gets at least 8% of total valid votes polled in 4 or more states (with or without any seats)
- 4) Which of the following committees have not been set up to examine electoral system in India?
 - a) Dinesh Goswami Committee.
 - b) Indrajit Gupta Committee.
 - c) Narasimham Committee.
 - d) Tankha Committee.

Solution: c)

Various committees have been put in place to examine electoral system, election machinery and election process from 1974 to 2011. The various committees can be mentioned here as follows:

- 1974 Tarkunde committee appointed by JP Narayana Election process and election system.
- 1990 Dinesh Goswami Committee Electoral reforms.
- 1993 Vohra committee Nexus between crime and politics.
- 1998 Indrajit Gupta committee State funding of elections.
- 1999 Law commission of India Reform of the electoral laws.
- 2000-2002 National commission headed by MN Venkatachaliah Working of the constitution.
- 2004 Election commission of India Proposed electoral reforms.
- 2007 Second ARC headed by Verappa Moily Report on ethics in governance.
- 2010 Tankha committee Gamut of election laws and electoral reforms.

Narasimham Committee is on Banking Sector Reforms (not on electoral reforms).

- 5) Consider the following statements regarding Model code of conduct (MCC).
- 1. The model code of conduct is a set of guidelines meant for political parties, candidates and governments to adhere to during an election.
- 2. MCC is issued by Election Commission of India (ECI) in exercise of its powers under Article 324. Which of the above statements is/are correct?
 - a) 1 only
 - b) 2 only
 - c) Both 1 and 2
 - d) Neither 1 nor 2

Solution: c)

- The model code of conduct issued by the ECI is a set of guidelines meant for political parties, candidates and governments to adhere to during an election.
- This code is based on consensus among political parties.
- The code has been issued in exercise of its powers **under Article 324.**
- 6) Consider the following statements.
- 1. Supreme Court have the power to transfer cases from the High Courts to itself if cases involve the same questions of law.

- 2. The power of the Supreme Court under Article 32 is wider than the High Court under Article 226.
- 3. Supreme Court can suo motu take cognisance of the issue of Distribution of Essential Supplies and Services During Pandemic.

Which of the above statements is/are correct?

- a) 1, 2
- b) 1, 3
- c) 1 only
- d) 2, 3

Solution: b)

In recent, the Supreme Court took suo motu cognisance of the issue in 'Re: Distribution of Essential Supplies and Services During Pandemic'.

Under Article 139A of the Constitution, the Supreme Court does have the power to transfer cases from the High Courts to itself if cases involve the same questions of law.

The power of the High Court under Article 226 is wider than the Supreme Court's under Article 32, for in the former, a writ can be issued not only in cases of violation of fundamental rights but also "for any other purpose".

- 7) Consider the following statements.
- 1. The Supreme Court has ruled that right to emergency medical treatment is part of the citizen's fundamental rights.
 - 2. Public health and hospitals falls under the Concurrent List of the Constitution.

Which of the above statements is/are correct?

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

Solution: a)

In Parmanand Katara v. Union of India (1989), the Supreme Court underlined the value of human lives and said that the right to emergency medical treatment is part of the citizen's fundamental rights.

Public health and allied subjects, such as sanitation, hospitals and dispensaries, are the exclusive responsibilities of state governments under the Seventh Schedule of the Indian Constitution whereas the prevention of the spread of infectious or contagious diseases from one state to another falls under the Concurrent List of the Constitution, making it the shared responsibility of the Centre and the states.

Source

- 8) Consider the following statements regarding Competition Commission of India (CCI).
 - 1. It is a non-statutory body of the Government of India.
- 2. It is responsible for promoting competition throughout India and to prevent activities that have an appreciable adverse effect on competition in India.
- 3. It has the power to carry out investigations if any e-commerce company use their dominant position to stifle competition.
 - 4. It promotes the policy of predatory pricing.

Which of the above statements is/are correct?

- a) 1, 2, 3
- b) 2, 3, 4
- c) 2, 3
- d) 1, 2, 3, 4

Solution: c)

Competition Commission of India is the competition regulator in India. It is a **statutory body** of the Government of India responsible for enforcing The **Competition Act, 2002** and promoting competition throughout India and to prevent activities that have an appreciable adverse effect on competition in India.

Antitrust watchdog Competition Commission of India (CCI) recently launched an investigation into the new WhatsApp privacy policy (it allowed the platform to share metadata with parent company Facebook), even as the Ministry of Electronics and Information Technology (MeitY) has urged the Delhi High Court to restrain WhatsApp from implementing this.

In January 2020, it launched an investigation into Amazon and Flipkart for abusing their dominant positions and carrying out acquisitions with the aim to stifle competition and for using predatory pricing tactics.

Source

- 9) Consider the following statements.
 - 1. The Constitution permits the Central government to make laws when Parliament is not in session.
 - 2. An ordinance can be re-promulgated only twice.
 - 3. Governor of a state can issue ordinances only with the approval of the President.

Which of the above statements is/are incorrect?

- a) 2 only
- b) 3 only
- c) 2, 3
- d) 1, 2, 3

Solution: c)

The Constitution permits the central and State governments to make laws when Parliament (or the State Legislature) is not in session. The Constitution states that the ordinance will lapse at the end of six weeks from the time Parliament (or the State Legislature) next meets.

An ordinance can be re-promulgated only thrice. The governor of a state can also issue ordinances under Article 213 of the Constitution of India, when the state legislative assembly is not in session.

Source

- 10) Consider the following statements regarding Tribunals.
- 1. Tribunal is a quasi-judicial body that have the power to try cases of special matter which are conferred on them by statutes.
- 2. The tenure, terms and conditions of service of the members of the Administrative tribunal are entirely in the hands of the executive.
- 3. For effective delivery of justice, the members of the Tribunals must be compulsorily trained in Law. Which of the above statements is/are correct?
 - a) 1, 2
 - b) 1, 3
 - c) 1 only
 - d) 1, 2, 3

Solution: a)

No.	Court of Law	Tribunal
1.	A court of law is a part of the traditional judicial system whereby judicial powers are derived from the state.	An Administrative Tribunal is an agency created by the statute and invested with judicial power.
2.	The Civil Courts have judicial power to try all suits of a civil nature unless the cognizance is expressly or impliedly barred.	Tribunal is also known as the Quasi-judicial body. Tribunals have the power to try cases of special matter which are conferred on them by statutes
3.	Judges of the ordinary courts of law are independent of the executive in respect of their tenure, terms and conditions of service etc. Judiciary is independent of Executive	Tenure, terms and conditions of the services of the members of Administrative Tribunal are entirely in the hands of Executive (government).
4.	The presiding officer of the court of law is trained in law.	The president or a member of the Tribunal may not be trained as well in law. He may be an expert in the field of Administrative matters .



- 1. The criteria for a group to qualify for reservation is "social and educational backwardness".
- 2. The 50% limit to vertical quotas was needed to ensure "efficiency" in administration.
- 3. Under no circumstances the 50% quota limit can be breached.

Select the correct answer code:

- a) 1, 2
- b) 1 only
- c) 1, 3
- d) 1, 2, 3

Solution: a)

One of the key issues before the court was to examine whether the 1992 landmark ruling in Indra Sawhney v Union of India had to be revisited. The ruling by a nine-judge Bench, in which the Mandal Commission report was upheld, laid down two important precedents. First, it said that the criteria for a group to qualify for reservation is "social and educational backwardness". Second, it reiterated the 50% limit to vertical quotas reasoning that it was needed to ensure "efficiency" in administration. However, the court said that this 50% limit will apply unless in "exceptional circumstances."

Source

- 12) Under the constitution, both Articles 323A and 323B deal with tribunals. Which of the following specifies the difference(s) between the tribunals established by these entities?
 - 1. Tribunals under Article 323 A are established by the Central government, whereas tribunals under Article 323 B are established by the State governments.
 - 2. Tribunal under the former deal with tax and financial matters, whereas tribunals under the later deal with more general matters.

Which of the above statements is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2

d) Neither 1 nor 2

Solution: d)

While tribunals under Article 323 A can be established only by Parliament, tribunals under Article 323 B (e.g. food stuffs, tenancy etc) can be established both by Parliament and state legislatures with respect to matters falling within their legislative competence.

Under Article 323A, only one tribunal for the Centre and one for each state or two or more states may be established.

There is no hierarchy of tribunals under 323A, whereas under Article 323B a hierarchy of tribunals may be created.

- 13) The final say in regard to inclusion or exclusion of socially and economically backward classes (SEBCs) is firstly with
 - a) Parliament
 - b) Supreme Court
 - c) President
 - d) National Commission for Backward Classes (NCBC)

Solution: c)

The Supreme Court held that "the final say in regard to inclusion or exclusion (or modification of lists) of SEBCs is firstly with the President, and thereafter, in case of modification or exclusion from the lists initially published, with the Parliament".

In the task of identification of SEBCs, the President shall be guided by the Commission set up under Article 338B; its advice shall also be sought by the state in regard to policies that might be framed by it. If the commission prepares a report concerning matters of identification, such a report has to be shared with the state government, which is bound to deal with it, in accordance with provisions of Article 338B. However, the final determination culminates in the exercise undertaken by the President

Source

- 14) Tribunals established under Part XIVA of the Constitution can deal with which of the following matters?
 - 1. Foreign exchange
 - 2. Tenancy of urban property
 - 3. Elections to either House of Parliament
 - 4. Land reforms

Select the correct answer code:

- a) 4 only
- b) 1, 3, 4
- c) 2, 3
- d) 1, 2, 3, 4

Solution: d)

Article 323B (Tribunals for other matters)

The appropriate Legislature may, by law, provide for the adjudication or trial by tribunals of any disputes, complaints, or offences with respect to all or any of the matters specified in clause (2) with respect to which such Legislature has power to make laws.

- (2) The matters referred to in clause (1) are the following, namely: —
- (a) levy, assessment, collection and enforcement of any tax;

- (b) foreign exchange, import and export across customs frontiers;
- (c) industrial and labour disputes;
- (d) land reforms by way of acquisition by the State of any estate as defined in article 31A or of any rights therein or the extinguishment or modification of any such rights or by way of ceiling on agricultural land or in any other way;
- (e) ceiling on urban property;
- (f) elections to either House of Parliament or the House or either House of the Legislature of a State, but excluding the matters referred to in article 329 and article 329A;
- (g) production, procurement, supply and distribution of food-stuffs (including edible oilseeds and oils) and such other goods as the President may, by public notification, declare to be essential goods for the purpose of this article and control of prices of such goods;
- (h) rent, its regulation and control and tenancy issues including the right, title and interest of landlords and tenants;
- (i) offences against laws with respect to any of the matters specified in sub-clauses (a) to (h) and fees in respect of any of those matters;
- (j) any matter incidental to any of the matters specified in sub-clauses (a) to (i).
- 15) Consider the following statements.
- 1. President has the power to issue Ordinance on those provisions which Parliament is not empowered to do.
- 2. Ordinance passed by the President ceases to operate on the expiry of six weeks from the reassembly of Parliament.

Which of the above statements is/are incorrect?

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

Solution: a)

•	President	•	GOvernor
	Ordinance issued by him cannot make those provisions which Parliament is not empowered to do that is the limitations on the Parliament's power are also the limitations of the ordinance.	•	Ordinance issued by him cannot make those provisions which State Legislative Assembly or SLA&SLC are not empowered to do that is the limitations on the SLA&SLC are also the limitations of the ordinance.
	An ordinance issued by him should be laid before both the Houses of Parliament when it reassembles. ordinance passed the President ceases to operate on the expiry of six weeks from the reassembly of Parliament. It may cease to operate even earlier than the prescribed six weeks, if both the Houses of Parliament passes resolutions disapproving it.		An ordinance issued by him should be laid before the legislative assembly or both the Houses of the state legislature (in case of SLA&SLC) when it reassembles This Ordinance issued by the Governor ceases to operate on the expiry of six weeks from the reassembly of the state legislature. It may cease to operate even earlier than the prescribed six weeks, if a resolution disapproving it is passed by the legislative assembly and is agreed to by the legislative council (in case of a bicameral legislature).

- 16) Consider the following statements.
 - 1. The executive power of the state vests with the Governor.
- 2. According to the Constitution, under no circumstance the Governors can act independent of the advice of the council of ministers.

Which of the above statements is/are correct?

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

Solution: a)

Though according to Article 153, the executive power of the state vests with governor, he is bound to act under the aid and advice of the council of ministers headed by the chief minister.

The Supreme Court has ruled umpteen times that governors cannot act independent of the advice of the council of ministers except in specified areas where the Constitution has entrusted them with discretionary powers.

The governor can also discard the aid and advice of the council of ministers, if specifically permitted by the president, when a state of emergency is declared under Article 353.

Source

- 17) Which of the following employees are covered by the Central Administrative Tribunal (CAT)?
 - 1. Members of the defence forces
 - 2. Officers and servants of the Supreme Court
 - 3. Secretarial staff of the Parliament

Select the correct answer code:

- a) 1, 3
- b) 2, 3
- c) 1, 2, 3
- d) None of the above

Solution: d)

The Central Administrative Tribunal (CAT) was set up in 1985 with the principal bench at Delhi and additional benches in different states.

The CAT exercises original jurisdiction in relation to recruitment and all service matters of public servants covered by it. Its jurisdiction extends to the all-India services, the Central civil services, civil posts under the Centre and civilian employees of defence services. However, the members of the defence forces, officers and servants of the Supreme Court and the secretarial staff of the Parliament are not covered by it.

- 18) Consider the following statements regarding National Commission for Backward Classes (NCBC).
- 1. National Commission for Backward Classes is a non-constitutional body under the Ministry of Social Justice and Empowerment.
 - 2. The commission was the outcome of Indra Sawhney & Ors. Vs. Union of India.
- 3. The commission considers inclusions in and exclusions from the lists of communities notified as backward for the purpose of job reservations.
 - 4. The commission have the same powers as a Civil Court.

Which of the above statements is/are correct?

- a) 1, 2, 3
- b) 2, 3, 4
- c) 3, 4
- d) 1, 3, 4

Solution: b)

National Commission for Backward Classes is a constitutional body (123rd constitutional amendment bill 2017 and 102nd amendment 2018 in constitution to make it constitutional body) (Article 338B of the Indian Constitution) under Ministry of Social Justice and Empowerment established on 14 August 1993. It was constituted pursuant to the provisions of the National Commission for Backward Classes Act, 1993.

The commission was the outcome of Indra Sawhney & Ors. Vs. Union of India.

The commission considers inclusions in and exclusions from the lists of communities notified as backward for the purpose of job reservations and tenders the needful advice to the Central Government as per Section 9(1) of the NCBC Act, 1993. Similarly, the states have also constituted commissions for BC's.

The National Commission for Backward Classes, National Commission for Scheduled Castes as well as National Commission for Scheduled Tribes have the same **powers as a Civil Court.**

- 19) Consider the following statements regarding Enforced disappearance.
- 1. Enforced disappearance means a person being secretly imprisoned by a state or political organization followed by a refusal to acknowledge the person's fate and whereabouts.
- 2. To protect the right to be free from enforced disappearance, the international community adopted the International Convention for the Protection of All Persons from Enforced Disappearance. Which of the above statements is/are correct?
 - a) 1 only
 - b) 2 only
 - c) Both 1 and 2
 - d) Neither 1 nor 2

Solution: c)

A person being secretly abducted or imprisoned by a state or political organization, or by a third party with the authorization, support, or acquiescence of a state or political organization, followed by a refusal to acknowledge the person's fate and whereabouts, with the intent of placing the victim outside the protection of the law, has come to be called a **forced disappearance** (or **enforced disappearance**).

According to the Rome Statute of the International Criminal Court, which came into force on 1 July 2002, when committed as part of a widespread or systematic attack directed at any civilian population, a "forced disappearance" qualifies as a crime against humanity, not subject to a statute of limitations, in international criminal law. On 20 December 2006, the United Nations General Assembly adopted the International Convention for the Protection of All Persons from Enforced Disappearance.

- 20) The term 'fledgling democracy' mean
 - a) An oldest democracy
 - b) Democracy without a written Constitution
 - c) A new Democracy
 - d) A democracy that is not secular

Solution: c)

- 21) Consider the following statements regarding Central Bureau of Investigation (CBI).
- 1. CBI functions under the Ministry of Personnel, Public Grievances and Pensions of the central government.
 - 2. CBI is not exempted from the purview of the Right to Information (RTI) Act.
 - 3. CBI is India's officially designated single point of contact for liaison with the Interpol.

Which of the above statements is/are correct?

- a) 1, 2
- b) 1, 3
- c) 2, 3
- d) 3 only

Solution: b)

The CBI came into being during the World War II, when the colonial government felt the need to probe cases of corruption in the War and Supply Department. A law came in 1941. It became the DSPE Act in 1946.

The Act to set up CBI was not passed by Parliament. It was created by an executive order of the government. In that sense, the CBI is not a statutory body.

The **CBI functions under the Ministry of Personnel, Public Grievances and Pensions** of the central government, and is **exempted from the purview of the Right to Information (RTI) Act.**

CBI is India's officially designated single point of contact for liaison with the Interpol.

- 22) Consider the following statements regarding Inner Line Permit (ILP)
 - 1. It is a document required by non-natives to visit or stay in a state that is protected under the ILP system.
 - 2. At present, it is required only in Arunachal Pradesh, Nagaland and Mizoram.
 - 3. The ILP is issued by the central government.

Which of the above statements is/are correct?

- a) 1 only
- b) 2, 3
- c) 1, 3
- d) 1, 2, 3

Solution: a)

Inner Line Permit (ILP) is a document required by non- natives to visit or stay in a state that is protected under the ILP system.

At present, four North-eastern states are covered, namely, Arunachal Pradesh, Mizoram, Manipur and Nagaland.

- Both the duration of stay and the areas allowed to be accessed for any non-native are determined by the ILP.
- The ILP is **issued by the concerned state government** and can be availed both by applying online or in person.
- 23) Consider the following statements regarding Inner Line Permit (ILP).

- 1. The Inner Line Permit is an extension of the Bengal Eastern Frontier Regulation Act 1873.
- 2. An ILP is only valid for domestic tourists.

Which of the above statements is/are incorrect?

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

Solution: d)

An ILP is only valid for domestic tourists.

Rationale behind:

The Inner Line Permit is an extension of the Bengal Eastern Frontier Regulation Act 1873.

After the British occupied the Northeast, the colonisers started exploiting the region and its resources for economic benefits.

• They first started tea plantations and oil industries in Brahmaputra Valley.

The indigenous tribes living in the hill areas would regularly conduct raids into the plains to loot and plunder, marauding the tea gardens, oil rigs and trading posts set up by the British East India Company.

- It was in this context that the BEFR 1873 was promulgated.
- 24) Consider the following statements.
 - 1. According to the Constitution, council of ministers shall be collectively responsible to the Lok Sabha.
 - 2. A no-confidence motion is "a motion expressing want of confidence in the Council of Ministers."
- 3. There should be a minimum of 50 percent of the members approval for moving the No-Confidence Motion.

Which of the above statements is/are correct?

- a) 1, 2
- b) 1 only
- c) 1, 3
- d) 1, 2, 3

Solution: a)

- According to the Article 75 of the Indian Constitution, council of ministers shall be collectively responsible to
 the Lok Sabha and as per Article 164, the council of ministers shall be collectively responsible to the
 Legislative Assembly of the State.
- According to rule 198 of the Rules of Procedure and Conduct of the Lok Sabha, a no-confidence motion is "a motion expressing want of confidence in the Council of Ministers."
- This motion can be moved when "the Member asking for leave shall, by 10.00 hours on that day give to the Secretary-General a written notice of the motion which such member proposes to move." The Speaker then, once satisfied that the motion is in order, will ask the House if the motion can be adopted. Those Members that support the motion will have to rise in their seats, and with a minimum of 50 Members' approval, the motion can be moved.
- A no-confidence motion needs a majority vote to pass the House. If individuals or parties abstain from voting, those numbers will be removed from the overall strength of the House and then the majority will be taken into account.

Source

- 25) Consider the following statements regarding National Security Act
 - 1. It is a law that allows punitive detention, if authorities are satisfied that a person is a threat to national security or law and order.
 - 2. The person does not need to be charged during this period of detention.

Which of the above statements is/are incorrect?

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

Solution: a)

About National Security Act:

- It is a stringent law that allows **preventive detention** for months, if authorities are satisfied that a person is a threat to national security or law and order.
- The **person does not need to be charged during this period of detention**. The goal is to prevent the individual from committing a crime.
- It was promulgated on September 23, 1980

7. States

- 1) Greyhounds, known for anti-insurgency operations against Naxalites, is from which state?
 - a) Andhra Pradesh
 - b) Jharkhand
 - c) Odisha
 - d) Chhattisgarh

Solution: a)

Greyhounds is a police special forces unit operating in Andhra Pradesh and Telangana. Greyhounds specialises in anti-insurgency operations against Naxalite.

8. Agriculture

- 1) Which of the following are the winter crops grown in India?
 - 1. Wheat
 - 2. Barley
 - 3. Mustard
 - 4. Peas

Select the correct answer code:

- a) 1, 2, 3
- b) 1, 3, 4
- c) 1, 2, 3, 4
- d) 2, 3, 4

Solution: c)

The crops that are sown in the winter season are called Rabi crops. (also known as the "winter crop") in India. The Rabi means, when the crop is harvested. Crops that are grown in the winter season, from November to April are called Rabi Crops. Some of the important rabi crops are **wheat**, **barley**, **peas**, **gram and mustard**.

- 2) Consider the following statements.
 - 1. Wheat is mainly a rabi crop in India.
 - 2. India is the second-largest producer of wheat in the world.

- 3. Wheat can only be grown in tropical and some parts of sub-tropical areas.
- Which of the above statements is/are correct?
 - a) 1, 2
 - b) 1 only
 - c) 1, 3
 - d) 1, 2, 3

Solution: a)

- Wheat is mainly a rabi (winter) season crop in India.
- Wheat crop has wide adaptability. It can be grown not only in the tropical and sub-tropical zones, but also in the temperate zone and the cold tracts of the far north, beyond even the 60 degree north altitude. Wheat can tolerate severe cold and snow and resume growth with the setting in of warm weather in spring. It can be cultivated from sea level to as high as 3300 meters.
- The best wheat are produced in areas favoured with cool, moist weather during the major portion of the growing period followed by dry, warm weather to enable the grain to ripen properly. The optimum temperature range for ideal germination of wheat seed is 20-25 C though the seeds can germinate in the temperature range 3.5 to 35 c. Rains just after sowing hamper germination and encourage seedling blight. Areas with a warm and damp climate are not suited for wheat growing.

Wheat is grown in a variety of soils of India. Soils with a clay loam or loam texture, good structure and moderate water holding capacity are ideal for wheat cultivation.

India is the second-largest producer of wheat in the world, with over 30 million hectares in the country dedicated to producing this crop.

Source Source

- 3) Consider the following statements regarding Direct Seeding of Rice (DSR).
 - 1. Here, the pre-germinated seeds are directly drilled into the field by a tractor-powered machine.
 - 2. Farmers prepare the seeds in the nursery through transplantation.
 - 3. Direct Seeding of Rice is Water efficient compared to the traditional method of sowing of seeds.

Which of the above statements is/are correct?

- a) 1 only
- b) 1, 3
- c) 1, 2
- d) 1, 2, 3

Solution: b)

What is Direct Seeding of Rice (DSR)?

- Here, the pre-germinated seeds are directly drilled into the field by a tractor-powered machine.
- There is **no nursery preparation or transplantation involved in this method**. Farmers have to only level their land and give one pre-sowing irrigation.

How is it different from conventional method?

- In transplanting paddy, farmers prepare nurseries where the paddy seeds are first sown and raised into young plants.
- The nursery seed bed is 5-10% of the area to be transplanted. These seedlings are then uprooted and replanted 25-35 days later in the puddled field.

Advantage of DSR:

- Water savings. The first irrigation (apart from the pre-sowing rauni) under DSR is necessary only 21 days after sowing. This is unlike in transplanted paddy, where watering has to be done practically daily to ensure submerged/flooded conditions in the first three weeks.
- **Less Labour**. About three labourers are required to transplant one acre of paddy at almost Rs 2,400 per acre.
- **Reduce methane emissions** due to a shorter flooding period and decreased soil disturbance compared to transplanting rice seedlings.

Limitations:

- Non-availability of herbicides.
- The seed requirement for DSR is also high,8-10 kg/acre, compared to 4-5 kg/acre in transplanting.
- Further, laser land levelling is compulsory in DSR. This is not so in transplanting.
- The sowing needs to be done timely so that the plants have come out properly before the monsoon rains arrive.

Source

- 4) Consider the following statements.
 - 1. India is the largest onion growing country in the world.
 - 2. Maharashtra, Karnataka, Madhya Pradesh and Gujarat are the key onion growing states in India.
 - 3. In India, the onions as the rabi crop output is more than the Kharif crop output.

Which of the above statements is/are correct?

- a) 1, 2
- b) 2 only
- c) 1, 3
- d) 2, 3

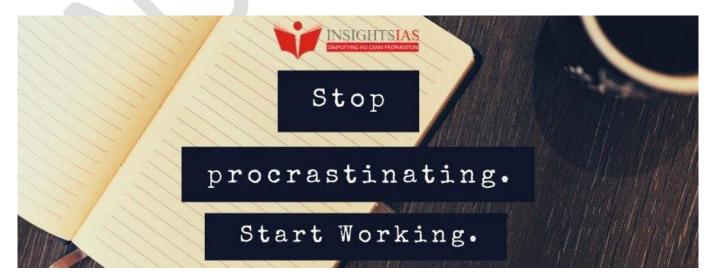
Solution: d)

India is the second largest onion growing country in the world after China.

The Major Onion producing states area **Maharashtra, Karnataka, Madhya Pradesh, Gujarat**, Bihar, Andhra Pradesh, Rajasthan, Haryana and Telangana.

The prices hit a peak between August and October after hitting rock-bottom in April. This is easily explained: the rabi crop, which accounts for 70 per cent of the onion output of 22 million tonnes, runs out by August or September, whereas the kharif crop arrives between October and December, leaving a two-month vacuum.

Source



9. Reports and Indices

- 1) World Happiness Report 2021, was released by
 - a) World Health Organization (WHO)
 - b) UN Sustainable Development Solutions Network
 - c) United Nations Development Programme (UNDP)
 - d) World Economic Forum

Solution: b)

The World Happiness Report 2021 has been released by the UN Sustainable Development Solutions Network and Finland was once again crowned as the world's happiest country.

India has been ranked 139 out of 149 countries in the list of UN World Happiness Report 2021. In 2019, India was ranked 140th.

The World Happiness Report is a landmark survey of the state of global happiness that ranks 149 countries by how happy their citizens perceive themselves to be.

The World Happiness Report 2021 focuses on the effects of Covid-19 and how people all over the world have fared.

The annual report ranks nations based on gross domestic product per person, healthy life expectancy and the opinions of residents.

Source

- 2) World Population Report 2021, recently seen in news was released by
 - a) World Bank
 - b) World Economic Forum
 - c) United Nations Population Fund
 - d) International Labour Organisation

Solution: c)

United Nations Population Fund's (UNFPA) flagship State of World Population Report 2021 titled 'My Body is My Own'.

Source

- 3) Corruption perception index (CPI) is released by
 - a) UNESCO
 - b) Transparency International
 - c) Organisation for Economic Co-operation and Development
 - d) INTERPOL

Solution: b)

Source

10. Maps / Places

- 1) Consider the following statements regarding Feni River.
 - 1. The Feni River originates in West Bengal.
 - 2. It flows through Bangladesh before discharging into Bay of Bengal.

Which of the above statements is/are correct?

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

Solution: b)

Feni River is a river in southeastern Bangladesh and Tripura. It is a trans-boundary river with an ongoing dispute about water rights. **The Feni River originates in South Tripura district** and flows through Sabroom town and then enters Bangladesh. It discharges into Bay of Bengal.

- 2) Consider the following statements regarding Suez Canal.
 - 1. Suez Canal is a natural waterway in Egypt.
 - 2. Suez Canal connects the Mediterranean Sea to the Red Sea.

Which of the above statements is/are correct?

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

Solution: b)

The Suez Canal is an **artificial sea-level waterway in Egypt**, **connecting the Mediterranean Sea to the Red Sea** through the Isthmus of Suez.

It offers vessels a direct route between the North Atlantic and northern Indian oceans.

- 3) Umngot River, considered as India's clearest river is located in
 - a) Uttarakhand
 - b) Ladakh
 - c) Tripura
 - d) Meghalaya

Solution: d)

The Meghalaya government has defended its plan to dam Umngot, arguably India's clearest river, despite protests from more than a dozen villages downstream.

Source

- 4) Depsang Plains, is a disputed area between
 - a) India and Nepal
 - b) India and China
 - c) China and Bhutan
 - d) India and Pakistan

Solution: b)

The Depsang Plains represent a high-altitude gravelly plain at the northwest portion of the disputed Aksai Chin region of Kashmir, divided into Indian and Chinese administered portions across a Line of Actual Control. India controls the western portion of the plains as part of Ladakh, whereas the eastern portion is controlled by China and claimed by India.

Source

- 5) A line joining Tashkent to Ashgabat will NOT cut through which of these nations?
 - a) Kazakhstan
 - b) Turkmenistan
 - c) Kyrgyzstan
 - d) Uzbekistan

Solution: c)



- 6) Farzad B gas field, recently in news is located in
 - a) Israel
 - b) Qatar
 - c) Iran
 - d) Saudi Arabia

Solution: c)

Iran gave the Farzad B gas field to Petropars, a domestic gas producer. This is a setback for India's energy ties with Iran as ONGC Videsh Ltd (OVL) had discovered the gas field in 2000 and has been part of the ongoing cooperation on that front.

INDIA



Source

When things didn't fall in line even in my third Mains, I emailed InsightsonIndia to seek guidance for the next attempt. InsightsIAS Offline program suited all my requirements. Thus, I moved in and stayed nearby Insights institute.

I followed offline prelims test series of Insights and also, prelims cum mains integrated study plan that was given to core batch students. I scheduled my day in accordance with the test series timetable(please make your own timetable which suits you the best). In my timetable I ensured 8 hours of sleep, one hour of sports and 5 minutes break in between. Make a realistic timetable which is practically possible to implement, set achievable targets and be honest to yourself in following it.

I improved immensely by getting the personal feedback by Vinay Sir, and was able to top the UPSC CSE-2016.





