



**INSIGHTSIAS**

SIMPLIFYING IAS EXAM PREPARATION

**INSTA** CURRENT AFFAIRS QUIZ

**FEBRUARY 2020**

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# 1. Economy

1) Consider the following statements regarding "crowding out" effect.

1. Crowding out effect refers to how increased government spending, for which it must borrow more money, tends to reduce private spending.
2. This also impacts interest rates in the economy.
3. A high magnitude of the crowding out effect may even lead to lesser income in the economy.

Which of the above statements is/are correct?

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

Solution: d)

"Crowding out" effect refers to how increased government spending, for which it must borrow more money, tends to reduce private spending. This happens because when the government takes up the lion's share of funds available in the banking system, less of it is left for private borrowers. This also impacts interest rates in the economy.

Sometimes, government adopts an expansionary fiscal policy stance and increases its spending to boost the economic activity. This leads to an increase in interest rates. Increased interest rates affect private investment decisions. A high magnitude of the crowding out effect may even lead to lesser income in the economy.

[Source](#)

2) The Fifteenth Finance Commission (FC) has considered which of the following parameters to arrive at the states' share in the divisible pool of taxes.

1. 2011 population census
2. Forest cover
3. Area of the state
4. Demographic performance

Select the correct answer code:

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

Solution: a)

The 15th Finance Commission has reduced the vertical devolution from 42% to 41%. It has used the criterion of 'demographic effort' to offset the population parameter.

The Fifteenth Finance Commission (FC) has considered the 2011 population along with forest cover, tax effort, area of the state, and "demographic performance" to arrive at the states' share in the divisible pool of taxes.

[Source](#)

3) Consider the following statements about RBI Board.

1. The RBI Board is a body comprising officials from both the central bank and the Government of India.
2. The Board recommends to the government the design, form and material of bank notes and also when and where they can serve as legal tender.
3. The Central government cannot supersede the RBI Board and issue directions to the central bank.

Which of the above statements is/are correct?

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

Solution: b)

The RBI Board is a body comprising officials from the central bank and the Government of India, including officials nominated by the government. According to the RBI, the “general superintendence and direction of the affairs and business of the RBI is entrusted to the Central Board” and the Board exercises all powers and does all acts and things that are exercised by the RBI. The Board is also to recommend to the government the design, form and material of bank notes and also when and where they can serve as legal tender.

The Board consists of official directors, who include the Governor and up to four Deputy Governors, non-official directors, who include up to ten directors from various fields and two government officials, and one director from each of four local boards of the RBI.

Section 7 of the RBI Act basically empowers the government to supersede the RBI Board and issue directions to the central bank if they are considered to be “necessary in public interest”.

#### [Source](#)

4) Consider the following statements regarding Corporate bonds.

1. Corporate bonds are debt securities issued only by private corporations.
2. Corporate bond does not have an ownership interest in the issuing company, unlike when one purchases the company's equity stock.
3. In India, financing of infrastructure projects such as roads, ports, and airports is higher through corporate bond market compared to bank loans and Government finance.

Which of the above statements is/are correct?

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

Solution: b)

Corporate bonds are debt securities issued by private and public corporations. Companies issue corporate bonds to raise money for a variety of purposes, such as building a new plant, purchasing equipment, or growing the business. When one buys a corporate bond, one lends money to the "issuer," the company that issued the bond. In exchange, the company promises to return the money, also known as "principal," on a specified maturity date. Until that date, the company usually pays you a stated rate of interest, generally semiannually. Corporate bond does not have an ownership interest in the issuing company, unlike when one purchases the company's equity stock.

In India, given the absence of a well functioning corporate bond market, the burden of financing infrastructure projects such as roads, ports, and airports is more on banks and the general government. This, in turn, puts lenders such as the banks under pressure as reflected in the ballooning of bad loans.

#### [Source](#)

5) Consider the following statements regarding Food inflation.

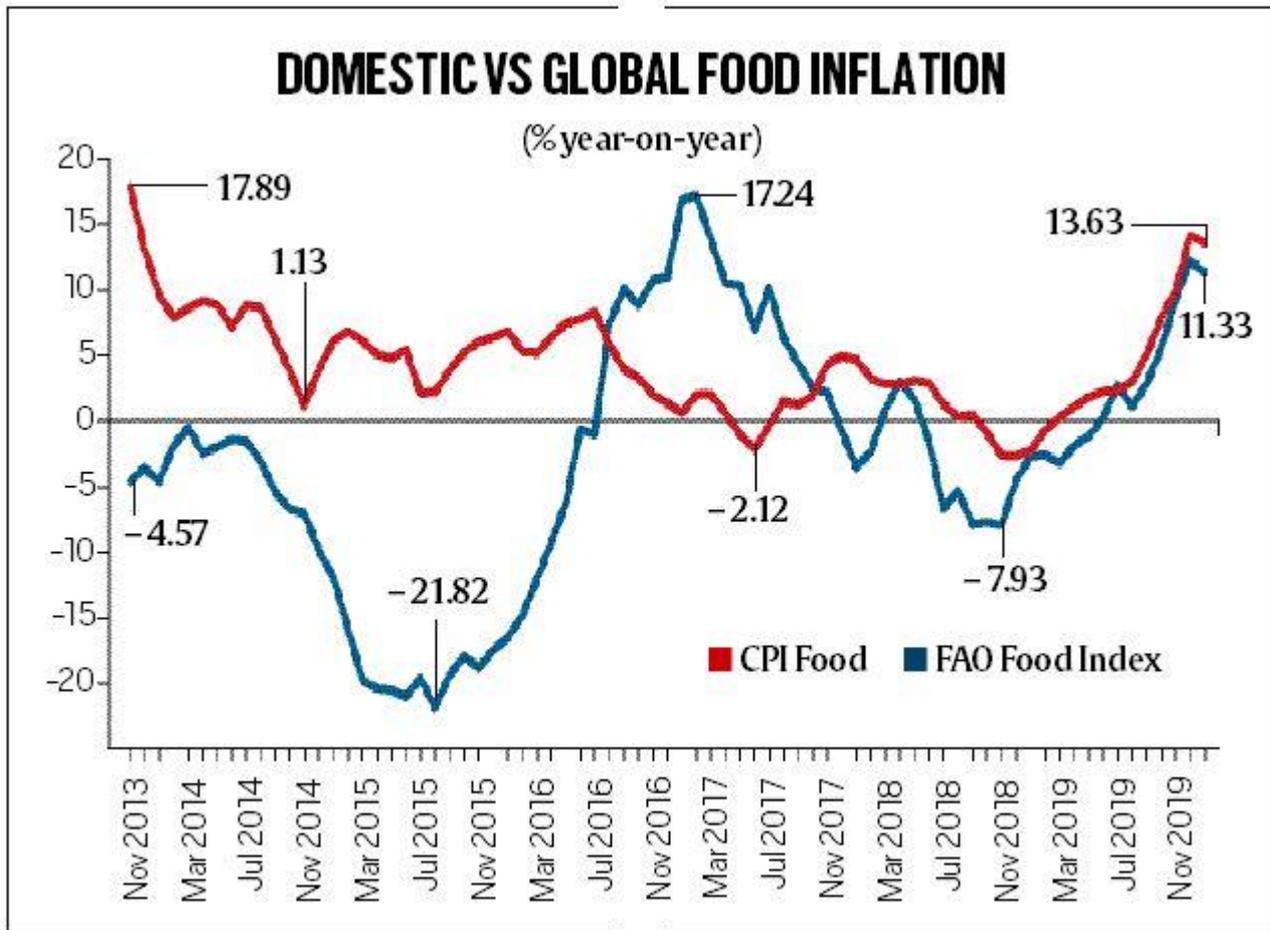
1. United Nations Food and Agriculture Organisation's (FAO's) food price index measure the change in international prices of a basket of major food commodities.
2. From 2014 to 2019, FAO's food price index has been decreasing steadily.
3. From 2014 to 2019, India's consumer food price index (CFPI) inflation has been decreasing steadily.

Which of the above statements is/are correct?

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

Solution: a)

The United Nations Food and Agriculture Organisation's (FAO's) food price index — which is a measure of the change in international prices of a basket of major food commodities with reference to a base period (2002-04 = 100) — touched 182.5 points in January 2020, the highest since the 185.8 level of December 2014.



[Source](#)

- 6) Consider the following statements regarding Deposit Insurance and Credit Guarantee Corporation (DICGC).
1. Deposit Insurance and Credit Guarantee Corporation (DICGC) is a wholly owned subsidiary of Reserve Bank of India.
  2. It was established under the Deposit Insurance and Credit Guarantee Corporation Act, 1961 for the purpose of providing insurance of deposits and guaranteeing of credit facilities.
  3. DICGC insures all bank deposits, such as saving, fixed, current, recurring deposit for up to the limit of Rs. 500,000 of each deposit in a bank.

Which of the above statements is/are correct?

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

Solution: d)

Deposit Insurance and Credit Guarantee Corporation (DICGC) is a wholly owned subsidiary of Reserve Bank of India. It was established on 15 July 1978 under the Deposit Insurance and Credit Guarantee Corporation Act, 1961 for the purpose of providing insurance of deposits and guaranteeing of credit facilities. DICGC insures all bank deposits, such as saving, fixed, current, recurring deposit for up to the limit of Rs. 500,000 of each deposit in a bank.

7) Arrange the following food grains produced in India 2018-19 in their decreasing order.

1. Wheat
2. Rice
3. Bajra
4. All Pulses
5. Jowar

Select the correct answer code

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

Solution: b)

## Food for the palate

The estimated total foodgrain output of 291.95 MT is over 6 MT higher than that produced in 2018-19

In million tonnes-MT	2018-19	2019-20 target	2019-20 2nd advance estimate
Total foodgrain production	285.21	291.10	291.95
Rice	116.48	116.00	117.47
Wheat	103.60	100.50	106.21
All pulses	22.08	26.30	23.02
Jowar	3.48	4.90	4.38
Bajra	8.66	9.50	8.90

SOURCE: GOVT.

[Source](#)

8) Consider the following statements regarding Index of Industrial Production (IIP).

1. The IIP is an index used to track the performance of the industrial sector in the Indian economy by mapping the volume of production.
2. In its sectoral classification, electricity has the highest weight.
3. Use-based classification has been adopted with categories like Capital Goods, Consumer durables, and Consumer non-durables for better understanding of the IIP data.

Which of the above statements is/are correct?

- a) 1, 2

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

Solution: d)

The IIP is an index used to track the performance of the industrial sector in the Indian economy. It does this by mapping the volume of production. But since it is an “index”, it targets a basket of industrial products — ranging from the manufacturing sector to mining to energy — and allocates different weights to them. Then, depending on the production of this basket, it throws up an index value. The index value is then compared with the value of the index in the same month a year ago to arrive at a percentage growth or decline figure.

#### How is IIP data read?

There are two ways to understand the IIP data. One can either drill down the IIP data and look at the sectoral performance — where the whole industrial sector is divided into three sub-sectors, namely manufacturing, mining and electricity — or look at the use-based classification.

What is the sectoral classification?

In the sectoral classification, manufacturing has the highest weight of 77.6%, mining has 14.4% share and electricity has 8% weight.

What is use-based classification?

Within the use-based classification, data is provided for six categories. These are :-

- Primary Goods (consisting of mining, electricity, fuels and fertilisers) — this has a weight of 34%
- Capital Goods (e.g. Machinery items) — this has a weight of 8%
- Intermediate Goods (e.g. yarns, chemicals, semi-finished steel items, etc) — this has a weight of 17%
- Infrastructure Goods (e.g. paints, cement, cables, bricks and tiles, rail materials, etc) — this has a weight of 12%
- Consumer Durables (e.g. garments, telephones, passenger vehicles, etc) — this has a weight of 13%
- Consumer Non-durables (e.g. food items, medicines, toiletries, etc) — this has a weight of 15%.

#### [Source](#)

9) Consider the following statements regarding Exclusive economic zone (EEZ).

1. Exclusive economic zone (EEZ) is a sea zone prescribed by International Maritime Organization over which a state has special rights regarding the exploration and use of marine resources.
2. It stretches from the baseline out to 200 nautical miles from the coast.
3. In the exclusive economic zone, the coastal State shall have the exclusive right to construct and operate artificial islands.

Which of the above statements is/are correct?

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

Solution: b)

An exclusive economic zone (EEZ) is a sea zone prescribed by the 1982 United Nations Convention on the Law of the Sea over which a state has special rights regarding the exploration and use of marine resources, including energy production from water and wind. It stretches from the baseline out to 200 nautical miles (nmi) from its coast.

In the exclusive economic zone, the coastal State shall have the exclusive right to construct and to authorize and regulate the construction, operation and use of:

- (a) artificial islands;

(b) installations and structures for the purposes provided for in article 56 of the United Nations Convention on the Law of the Sea and other economic purposes;

(c) installations and structures which may interfere with the exercise of the rights of the coastal State in the zone.

The coastal State shall have exclusive jurisdiction over such artificial islands, installations and structures, including jurisdiction with regard to customs, fiscal, health, safety and immigration laws and regulations.

[Source](#)

[Source](#)

10) Consider the following statements about Hybrid Annuity Model (HAM).

1. It is a new form of BOT Annuity model.
2. The government will contribute 60% of the project cost in the first five years through annual payments.
3. There is no right to collect toll for the developer.

Which of the above statements is/are correct?

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

Solution: c)

In India, the new HAM is a mix of BOT Annuity and EPC models. As per the design, the government will contribute to 40% of the project cost in the first five years through annual payments (annuity). The remaining payment will be made on the basis of the assets created and the performance of the developer.

Here, hybrid annuity means the first 40% payment is made as fixed amount in five equal instalments whereas the remaining 60% is paid as variable annuity amount after the completion of the project depending upon the value of assets created.

As the government pays only 40%, during the construction stage, the developer should find money for the remaining amount.

Here, he has to raise the remaining 60% in the form of equity or loans.

There is no toll right for the developer. Under HAM, Revenue collection would be the responsibility of the National Highways Authority of India (NHAI).

[Source](#)



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## 2. Ecology and Environment

1) Consider the following statements regarding Sand mining.

1. The Ministry of Environment, Forests and Climate Change has for the first time released guidelines to monitor and check illegal sand mining in the country.

2. The Enforcement and Monitoring Guidelines for Sand Mining 2020 also push for online sales and purchase of sand and other riverbed materials to make the process transparent.

3. The Mines and Minerals (Development and Regulation) Act, 1957 empowers state governments to make rules to prevent illegal mining, transportation and storage of minerals.

Which of the above statements is/are correct?

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

Solution: d)

Following a series of orders by the National Green Tribunal in 2018, the Ministry of Environment, Forests and Climate Change has for the first time released guidelines to monitor and check illegal sand mining in the country.

The Enforcement and Monitoring Guidelines for Sand Mining 2020 released by the Ministry include directions to states to carry out river audits, put detailed survey reports of all mining areas online and in the public domain, conduct replenishment studies of river beds, constantly monitor mining with drones, aerial surveys, ground surveys and set up dedicated task forces at district levels.

The guidelines also push for online sales and purchase of sand and other riverbed materials to make the process transparent. They propose night surveillance of mining activity through night-vision drones.

While the MoEF has already put in place the Sustainable Sand Management Guidelines 2016, which focus on the management of sand mining in India, officials say that there is an urgent need to have guidelines for effective enforcement of regulatory provisions and their monitoring.

The Mines and Minerals (Development and Regulation) Act, 1957 has empowered state governments to make rules to prevent illegal mining, transportation and storage of minerals. "But in the recent past, it has been observed that there was a large number of illegal mining cases in the country.

The 2020 guidelines are to be enforced simultaneously with the Sustainable Sand Management Guidelines, 2016, but in instances where the two sets of guidelines may seem to be in conflict, the new set will hold legal precedence.

[Source](#)

2) Consider the following statements regarding Wetlands (Conservation and Management) Rules, 2017.

1. The Rules have been framed under the Environment Protection Act, 1986.

2. These rules shall apply to wetlands falling in areas covered under Wild Life (Protection) Act, 1972 and the Forest (Conservation) Act, 1980.

3. The rules stipulate setting up of a State Wetlands Authority in each State and union territories who will develop a comprehensive list of activities to be regulated and permitted within the notified wetlands and their zone of influence.

Which of the above statements is/are correct?

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

Solution: c)

The environment ministry notified new wetland rules in 2017.

The revision of the Wetlands (Conservation and Management) Rules, 2017, is to bring the role of state wetlands authorities to the fore for wetlands conservation. As the Rules have been framed under the Environment Protection Act, the ultimate responsibility rests with the ministry of environment, forest and climate change.

The new rules stipulate setting up of a State Wetlands Authority in each State and union territories that will be headed by the State's environment minister and include a range of government officials. They will also include one expert each in the fields of wetland ecology, hydrology, fisheries, landscape planning and socioeconomics to be nominated by the state government.

These authorities will need to develop a comprehensive list of activities to be regulated and permitted within the notified wetlands and their zone of influence, recommend additional prohibited activities for specific wetlands, define strategies for conservation and wise use of wetlands, and undertake measures for enhancing awareness within stakeholders and local communities on values and functions of wetlands.

Applicability of rules.—These rules shall apply to the following wetlands or wetlands complexes, namely:— (a) wetlands categorised as 'wetlands of international importance' under the Ramsar Convention; (b) wetlands as notified by the Central Government, State Government and Union Territory Administration: Provided that these rules shall not apply to the wetlands falling in areas covered under the Indian Forest Act, 1927, the Wild Life (Protection) Act, 1972, the Forest (Conservation) Act, 1980, the State Forest Acts, and the Coastal Regulation Zone Notification, 2011 as amended from time to time.

[Source](#)

[Source](#)

3) Consider the following statements regarding Hydrophone.

1. A hydrophone detects acoustic signals under the water.

2. A Hydrophone works by converting a sound wave into an electrical voltage by detecting changes in pressure in the surrounding environment.

3. Recently National Green Tribunal banned the use of hydrophone in Indian rivers and lakes.

Which of the above statements is/are correct?

a) 1, 2

b) 1, 3

c) 2, 3

d) 1, 2, 3

Solution: a)

Odisha Forest Department officials, wildlife experts and researchers have sighted 146 endangered Irrawaddy dolphins in Chilika Lake, which boasts of the highest single lagoon population of the aquatic mammal in the world.

The direct sighting of 146 dolphins only corroborates the estimate of the Chilika Development Authority (CDA), which does counting of dolphins round the year using hydrophones.

According to hydrophone monitoring carried out round the year in Chilika, the highest number of Irrawaddy dolphins (20-25) was moving around Rajhans, followed by the Magarmukh and Malatikuda areas, where dolphins numbering between 17-20 were expected.

[Source](#)

4) Consider the following statements regarding Irrawaddy dolphins.

1. Of the six varieties of dolphins that are found in India's rivers, lakes and around coastline, the Irrawaddy Dolphins are among the highest in number.

2. The Irrawaddy Dolphins are found mostly in brackish water zones.

3. In India, Irrawaddy Dolphins are found mainly in Chilika Lake.

Which of the above statements is/are correct?

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

Solution: b)

Of the six varieties of dolphins that are found in India's rivers, lakes and around coastline, the Irrawaddy Dolphins are among the lowest in number.

The Gangetic river dolphins are freshwater species that are found in the Sundarban river system and Brahmaputra rivers. On the other hand, the Irrawaddy Dolphins are found mostly in brackish water zones and that too in Chilika.

At least 146 endangered Irrawaddy Dolphins were sighted in Odisha's Chilika lake during the annual dolphin census conducted by the state's forest department.

The Irrawaddy Dolphin (*Orcaella brevirostris*) is the flagship species of Chilika lake. Chilika is home to the only known population of Irrawaddy Dolphins in India. One of only two lagoons in the world is home to this species -- Irrawaddy Dolphins.

[Source](#)

5) Consider the following statements regarding Samurai loan.

- 1. Samurai loans allow non-Japanese firms to tap into the investment capital available in Japan and borrow funds in yen.
- 2. It provides the borrower with capital to either enter the Japanese market or the ability to convert the proceeds into the firm's local currency for use in existing operations.

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)

India's largest power generator NTPC Ltd said that it has raised a \$750 million-worth term loan in Japanese yen, claiming it to be the "largest ever" Samurai loan raised by any Asian corporate.

Samurai loans allow non-Japanese firms to tap into the investment capital available in Japan and borrow funds in yen, which is among the currencies with the lowest interest rates. The cross border syndicated loan provides the borrower with capital to either enter the Japanese market or the ability to convert the proceeds into the firm's local currency for use in existing operations.

NTPC said the loan was raised under the automatic route of RBI's External Commercial Borrowing regulations and has been fully underwritten by the State Bank of India in Tokyo, Sumimoto Mitsui Banking Corporation in Singapore and Bank of India, Tokyo.

[Source](#)

6) Consider the following statements about Special Rhino Protection Force (SRPF).

- 1. The SRPF is basically a tiger protection force named after the rhino since the threat of poaching is more for the one-horned herbivore.

2. It is an initiative of *WWF-India*.

3. The force would be used for Kaziranga National Park, Orang National Park and Manas National Park.

Which of the above statements is/are correct?

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

Solution: c)

SRPF was raised for better protection of rhinos. The SRPF is basically a tiger protection force named after the rhino since the threat of poaching is more for the one-horned herbivore. The force would be exclusively used for Kaziranga National Park, Orang National Park and Manas National Park. The Assam government would be paying the salaries of the SRPF members and the amount would be reimbursed by the National Tiger Conservation Authority. The process of setting up the special force was started in 2015.

The squad, raised in collaboration between the central and state governments, is an initiative of National Tiger Conservation Authority (NTCA).

#### [Source](#)

7) Recently National Green Tribunal, had banned RO water filter use in Delhi. In RO water filters which of the following can be reduced, to meet potable water standards.

- 1. Trace chemicals
- 2. Viruses
- 3. Bacteria
- 4. Salts

Select the correct answer code:

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

Solution: d)

In RO, the total dissolved solids (TDS) in water — which covers trace chemicals, certain viruses, bacteria and salts — can be reduced, to meet potable water standards. Some research has shown that the process can cut the levels of calcium and magnesium, which are vital nutrients.

#### [Source](#)

8) Consider the following statements.

- 1. The Vikramshila Gangetic Dolphin Sanctuary (VGDS), from Sultanganj to Kahalganj on the Ganga in Bihar is the only dolphin sanctuary in the country.
- 2. Gangetic river dolphin is India's national aquatic animal.
- 3. The Gangetic river dolphin is found only in the Ganges River and their tributaries in India.

Which of the above statements is/are correct?

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

Solution: b)

The Ganges river dolphin is primarily found in the Ganges and Brahmaputra Rivers and their tributaries in Bangladesh, India and Nepal.

The Vikramshila Gangetic Dolphin Sanctuary (VGDS), from Sultanganj to Kahalganj on the Ganga in Bihar is the only dolphin sanctuary in the country.

The Ganges river dolphin has been recognized by the government of India as its National Aquatic Animal and is the official animal of the city of Guwahati.

#### Source

9) Consider the following statements regarding Permafrost.

1. Permafrost is any ground that remains completely frozen for at least two years straight.
2. They are located only in high latitudes around the Arctic and Antarctic regions.
3. The thawing of permafrost has implications for the global climate.

Which of the above statements is/are correct?

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

Solution: c)

Permafrost is any ground that remains completely frozen—32°F (0°C) or colder—for at least two years straight. These permanently frozen grounds are most common in regions with high mountains and in Earth's higher latitudes—near the North and South Poles.

Almost a quarter of the land area in the Northern Hemisphere has permafrost underneath. Although the ground is frozen, permafrost regions are not always covered in snow.

Most permafrost is located in high latitudes (in and around the Arctic and Antarctic regions), but at lower latitudes alpine permafrost occurs at higher elevations.

The thawing of permafrost has implications for the global climate.

10) Consider the following statements regarding Permafrost.

1. Permafrost store about double the amount of carbon present in the atmosphere.
2. In the solid state of Permafrost, microbial decomposition of organic materials is stalled and as the Earth warms microbes become active and the greenhouse gases drift upwards.

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)

In this solid state, the normal microbial decomposition of organic materials is stalled, and the carbon dioxide and methane that's normally produced stays in the ground.

This means that in the permanently frozen regions of Siberia, Canada, Greenland and Alaska store about double the amount of carbon that's up in the atmosphere.

But as the Earth warms, and the soils starts to get hotter, the microbes become active and the greenhouse gases drift upwards once again.

Scientists know that the arctic and sub-arctic regions are heating up two times faster than the rest of the planet and that it will release perilous amount of methane and carbon dioxide thus far trapped under the ice.

But scientists anticipated this process to be slow, giving humans a good chance of cutting down anthropogenic emissions. But a new study published in the journal *Nature Geoscience*, says that studies done till now have ignored a lesser known phenomenon where ice disintegrates rapidly, sometimes within days.

This process is also known as abrupt thaw. This abrupt thawing will take place in less than 20 per cent of the land under permafrost.

## Source

11) Consider the following statements regarding Conservation Agriculture (CA).

1. Conservation Agriculture (CA) is a farming system that can prevent losses of arable land while regenerating degraded lands.
2. External inputs such as agrochemicals are not applied so that it does not disrupt the biological processes.
3. It includes crop-livestock integration and the integration of trees and pastures into agricultural landscapes.

Which of the above statements is/are correct?

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

Solution: b)

Conservation Agriculture (CA) is a farming system that can prevent losses of arable land while regenerating degraded lands. It promotes maintenance of a permanent soil cover, minimum soil disturbance, and diversification of plant species. It enhances biodiversity and natural biological processes above and below the ground surface, which contribute to increased water and nutrient use efficiency and to improved and sustained crop production.

CA principles are universally applicable to all agricultural landscapes and land uses with locally adapted practices. Soil interventions such as mechanical soil disturbance are reduced to an absolute minimum or avoided, and external inputs such as agrochemicals and plant nutrients of mineral or organic origin are applied optimally and in ways and quantities that do not interfere with, or disrupt, the biological processes.

Complemented by other known good practices, including the use of quality seeds, and integrated pest, nutrient, weed and water management, etc., CA is a base for sustainable agricultural production intensification. It opens increased options for integration of production sectors, such as crop-livestock integration and the integration of trees and pastures into agricultural landscapes.

## Source

12) Consider the following statements about National Centre for Polar and Ocean Research (NCPOR).

1. The NCPOR has established a high-altitude research station named 'Himansh' in Himalaya.
2. NCPOR functions under the Ministry of Earth Sciences (MoES).
3. NCPOR does not have the permission to do research in the Arctic region and the Antarctica continent.

Which of the above statements is/are correct?

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

Solution: c)

The NCPOR under the Ministry of Earth Sciences (MoES) has undertaken studies in the Western Himalaya in Chandra basin in Lahaul-Spiti (Himachal Pradesh) since 2013.

The NCPOR has established a high-altitude research station named 'Himansh' in Himalaya at 4,000 metres altitude at Sutri Dhaka, a remote location in Lahaul-Spiti district of Himachal Pradesh.

The NCPOR has also been doing research in the Arctic region and the Antarctica continent.

13) Which of the following are the Ozone depleting substances.

1. Hydrobromofluorocarbons (HBFCs)
2. Halons
3. Methyl bromide
4. Carbon tetrachloride
5. Methyl chloroform

Select the correct answer code:

- a) All except 3
- b) All except 4
- c) All except 5
- d) All of the above

Solution: d)

Ozone depleting substances include:

- chlorofluorocarbons (CFCs)
- hydrochlorofluorocarbons (HCFCs)
- hydrobromofluorocarbons (HBFCs)
- halons
- methyl bromide
- carbon tetrachloride
- methyl chloroform.

14) Consider the following statements.

1. The highest number and high endemism of orchid species are found in Western Ghats.
2. Botanical Survey of India conducts census of orchids of India.
3. Trade of wild orchid is banned globally.

Which of the above statements is/are correct?

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

Solution: c)

The Botanical Survey of India has come up with the first comprehensive census of orchids of India putting the total number of orchid species or taxa to 1,256.

A State-wise distribution of orchid species point out that the Himalayas, North-East parts of the country and Western Ghats are the hot-spots of the beautiful plant species.

The highest number of orchid species is recorded from Arunachal Pradesh with 612 species, followed by Sikkim 560 species and West Bengal; Darjeeling Himalayas have also high species concentration, with 479 species. While north-east India rank at the top in species concentration, the Western Ghats have high endemism of orchids.

Among the 10 bio geographic zones of India, the Himalayan zone is the richest in terms of orchid species followed by Northeast, Western Ghats, Deccan plateau and Andaman & Nicobar Islands.

Entire orchid family is listed under appendix II of CITES (Convention on International Trade in Endangered Species of Wild Fauna and Flora) and hence any trade of wild orchid is banned globally.

[Source](#)

15) E-waste contain potentially harmful materials such

1. Brominated flame retardants
2. Phosphors
3. Cadmium

4. Beryllium

5. Lead

Select the correct answer code:

a) 1, 3, 4, 5

b) 2, 3, 4, 5

c) 1, 2, 3, 5

d) 1, 2, 3, 4, 5

Solution: d)

Electronic scrap components, such as CPUs, contain potentially harmful materials such as lead, cadmium, beryllium, or brominated flame retardants.

CRTs have a relatively high concentration of lead and phosphors (not to be confused with phosphorus), both of which are necessary for the display.

Country's first e-waste clinic is being opened in Bhopal, Madhya Pradesh today. It would enable segregation, processing and disposal of waste from both household and commercial units.

[Source](#)

16) MOSAiC mission, recently seen in news is related to

a) Study of Arctic Climate.

b) Study outer corona of Sun.

c) First solar power spacecraft to orbit Jupiter.

d) None of the above

Solution: a)

The MOSAiC mission stands for Multidisciplinary drifting Observatory for the Study of Arctic Climate.

[Source](#)

17) Consider the following statements.

1. The park was created to protect its keystone species, the Nilgiri tahr.

2. The park is characterised by montane grasslands and shrublands interspersed with sholas in a high-altitude area of high rainfall, near-freezing temperatures and high winds.

3. The park is a part of Nilgiri Biosphere Reserve.

The above statements mainly refer to

a) Mukurthi National Park

b) Mudumalai National Park

c) Eravikulam National Park

d) Silent Valley National Park

Solution: a)

Mukurthi National Park (MNP) is a protected area located in the western corner of the Nilgiris Plateau west of Ootacamund hill station in the northwest corner of Tamil Nadu state in the Western Ghats mountain range of South India. The park was created to protect its keystone species, the Nilgiri tahr.

The park is characterised by montane grasslands and shrublands interspersed with sholas in a high-altitude area of high rainfall, near-freezing temperatures and high winds. It is home to an array of endangered wildlife, including royal Bengal tiger and Asian elephant, but its main mammal attraction is the Nilgiri tahr. The park was previously known as Nilgiri Tahr National Park.

The park is a part of Nilgiri Biosphere Reserve, India's first International Biosphere Reserve. As part of the Western Ghats, it is a UNESCO World Heritage Site since 1 July 2012.

18) Consider the following statements about Tamil yeoman.

1. Tamil yeoman is the butterfly species *endemic to Western Ghats* which has been declared *the state butterfly of Tamil Nadu*.
2. Tamil Nadu became the first state in the country to *declare a state butterfly*.

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)

Tamil yeoman (*Cirrochroa thais*) butterfly species *endemic to Western Ghats* has been declared *the state butterfly of Tamil Nadu*.

For the *first time Tamil Nadu has declared its state butterfly* and only *fifth in the country to do so*. Maharashtra was the *first to declare Blue Mormon* as its state butterfly, followed by Uttarakhand (Common peacock), Karnataka (Southern bird wings) and Kerala (Malabar banded peacock).

[Source](#)

19) Consider the following statements regarding Forest Fires.

1. The youngest mountain ranges of Himalayas are susceptible to forest fires.
2. The forests of Eastern Himalayas are more frequently vulnerable to forest fires as compared to those in Western Himalayas.
3. Fire lines are strips without greenery or dried twigs to prevent forest fires from spreading.

Which of the above statements is/are correct?

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

Solution: c)

The most common hazard in forests is forests fire. Forests fires are as old as the forests themselves. They pose a threat not only to the forest wealth but also to the entire regime to fauna and flora seriously disturbing the biodiversity and the ecology and environment of a region. During summer, when there is no rain for months, the forests become littered with dry senescent leaves and twinges, which could burst into flames ignited by the slightest spark. The Himalayan forests, particularly, Garhwal Himalayas have been burning regularly during the last few summers, with colossal loss of vegetation cover of that region.

The youngest mountain ranges of Himalayas are the most vulnerable stretches of the world susceptible to forest fires. The forests of Western are more frequently vulnerable to forest fires as compared to those in Eastern Himalayas. This is because forests of Eastern Himalayas grow in high rain density. With large scale expansion of chirr (Pine) forests in many areas of the Himalayas the frequency and intensity of forest fires has increased.



Creating a barrier Forest staff clearing shrubs to make fire lines at the Mukurthi National Park near Udhagamandalam ahead of summer. Fire lines are strips without greenery or dried twigs to prevent forest fires from spreading. M. Sathyamoorthy

### [Source](#)

20) Consider the following statements regarding *Biorock or mineral accretion technology*.

1. *Biorock or mineral accretion technology can be used to restore coral reefs.*

2. Biorock is the name given to the substance formed by electro accumulation of minerals dissolved in seawater on steel structures that are lowered onto the sea bed and are connected to a power source.

3. It results in the formation of calcium carbonate.

Which of the above statements is/are correct?

a) 1, 2

b) 2, 3

c) 1, 3

d) 1, 2, 3

Solution: d)

*The Zoological Survey of India (ZSI)*, with help from Gujarat's forest department, is attempting for the first time a process to restore coral reefs using *biorock or mineral accretion technology* in the Gulf of Kachchh.

Biorock is the name given to the substance formed by electro accumulation of minerals dissolved in seawater on steel structures that are lowered onto the sea bed and are connected to a power source, in this case solar panels that float on the surface.

"The technology works by passing a small amount of electrical current through electrodes in the water. "When a positively charged anode and negatively charged cathode are placed on the sea floor, with an electric current flowing between them, calcium ions combine with carbonate ions and adhere to the structure (cathode). This results in calcium carbonate formation. Coral larvae adhere to the  $\text{CaCO}_3$  and grow quickly.

Fragments of broken corals are tied to the biorock structure, where they are able to grow at least four to six times faster than their actual growth as they need not spend their energy in building their own calcium carbonate skeletons.

The location for installing the biorock had been chosen keeping in mind the high tidal amplitude in the Gulf of Kachchh. The low tide depth where the biorock has been installed is four metres, and at high tide it is about eight metres.

### [Source](#)

21) Consider the following statements regarding Geomagnetic reversal.

1. A geomagnetic reversal is a change in a planet's magnetic field such that the positions of geographic north and geographic south are interchanged.

2. It will have an effect on the animals that use Earth's magnetic field for navigation.

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)

A geomagnetic reversal is a change in a planet's magnetic field such that the positions of magnetic north and magnetic south are interchanged (not to be confused with geographic north and geographic south). Reversal occurrences are statistically random.

The only major, noticeable effect that's guaranteed to occur when the polar flop is finished is that your compass needle will tell you that North is in Antarctica and South is somewhere near Canada.

Another interesting consequence will be that animals that use Earth's magnetic field for navigation—including birds, salmon, and sea turtles—could get lost during their routine journeys.

[Source](#)

22) Which of the following rivers flows through Kaziranga National Park.

- 1. Brahmaputra
- 2. Diphlu
- 3. Dharla
- 4. Mora Diphlu
- 5. Rangpo

Select the correct answer code:

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

Solution: c)

Kaziranga is crisscrossed by four main rivers — Brahmaputra, Diphlu, Mora Diphlu and Mora Dhansiri and has numerous small water bodies.

23) Consider the following statements regarding Convention on Migratory Species (CMS).

- 1. The CMS is an environmental treaty of the UN that provides a global platform for the conservation and sustainable use of migratory animals and their habitats.
- 2. It is not the only global convention specialising in the conservation of migratory species, their habitats and migration routes.
- 3. CMS brings together the States through which migratory animals pass, the Range States, and lays the legal foundation for internationally coordinated conservation measures throughout a migratory range.

Which of the above statements is/are correct?

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

Solution: b)

India hosted the 13th Conference of the Parties to the Convention on Migratory Species (CMS COP13), a major United Nations wildlife conference, in Gandhinagar. The theme of the conference is "Migratory species connect the planet and together we welcome them home".

The CMS is an environmental treaty of the UN that provides a global platform for the conservation and sustainable use of migratory animals and their habitats. It is the only global convention specialising in the conservation of migratory species, their habitats and migration routes.

The pact was signed in 1979 in Germany and is known as the Bonn Convention.

“CMS brings together the States through which migratory animals pass, the Range States, and lays the legal foundation for internationally coordinated conservation measures throughout a migratory range,”

[Source](#)

24) Consider the following statements.

1. India is a temporary home to several migratory animals and birds like Amur Falcons, Bar-headed Geese, Black-necked cranes, Marine turtles, Dugongs and Humpbacked Whales.

2. The Indian sub-continent is also part of Central Asian Flyway (CAF) that covers areas between the Arctic and Indian Oceans.

3. India had legally binding MoUs with the Convention on Migratory Species (CMS) on the conservation and management of Siberian Cranes and Marine Turtles.

Which of the above statements is/are correct?

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

Solution: a)

India has also signed a non-legally binding MOU with CMS on the conservation and management of Siberian Cranes (1998), Marine Turtles (2007), Dugongs (2008) and Raptors (2016).

India is a temporary home to several migratory animals and birds. The important among these include Amur Falcons, Bar-headed geese, Black-necked cranes, Marine turtles, Dugongs, Humpbacked Whales, etc. The Indian sub-continent is also part of the major bird flyway network, i.e, the Central Asian Flyway (CAF) that covers areas between the Arctic and Indian Oceans. India has also launched the National Action Plan for the conservation of migratory species under the Central Asian Flyway.

[Source](#)

25) Consider the following statements regarding Gharial.

1. Gharial prefers deep fast flowing rivers.

2. In India, gharial populations are present in Girwa River, Son River, Ramganga River, Chambal River and Mahanadi River.

2. Odisha has now secured the tag of being India's gharial state.

Which of the above statements is/are correct?

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

Solution: a)

Six months after being declared India's tiger state, Madhya Pradesh has now secured the tag of being the country's gharial state. According to the findings of a survey conducted by the Wildlife Trust of India (WTI) – a leading Indian nature conservation organization – Madhya Pradesh houses a maximum 1,255 gharial population in the country followed by 255 gharials in Bihar.

“As per the WTI survey report, there are 1,255 gharials in the Chambal river in Madhya Pradesh.”

Forest department sources said the Deori Eco Centre in Morena is the prime contributor to boosting the gharial population in MP, as its at this centre where Gharial eggs are hatched and hatchlings are reared up to three years.

Gharial prefers deep fast flowing rivers, however adult gharial have also been observed in still water branches (jheel) of rivers and in comparatively velocity-free aquatic environments of deepholes (kunds) at river bends and confluences. Smaller animals seem to conserve energy by resting out of the mainstream in sheltered backwaters, particularly during the monsoon (July-September). Sand and rock outcrops are preferred basking sites and these animals show considerable site fidelity. Historically, gharial were found in the river system of India, Pakistan, Bangladesh and southern part of Bhutan and Nepal. Today they survive only in the waters of India and Nepal. The surviving population can be found within the tributaries of the Ganges river system: Girwa (Uttar Pradesh), Son (Madhya Pradesh), Ramganga (Uttarakhand), Gandak (Bihar), Chambal (Uttar Pradesh, Madhya Pradesh and Rajasthan) and Mahanadi (Orissa).

Status: Listed in Schedule I of Wildlife (Protection) Act, 1972 and as Critically Endangered on IUCN Red List

[Source](#) [Source](#)

26) Consider the following statements.

1. Between 2014-15 and 2018-19, among elephant deaths caused in conflict with humans, poaching is the primary cause, accounting for nearly two-thirds of the deaths.

2. West Bengal had the highest number of human deaths caused by elephants and tigers during 2014-15 and 2018-19.

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)

Among elephant deaths caused in conflict with humans, electrocution is the primary cause, accounting for nearly two-thirds of the deaths (333 out of 510).

Between 2014-15 and 2018-19, 2,361 humans were killed as a result of conflict with elephants, while 510 elephants were killed in incidents of electrocution, train accidents, poaching and poisoning during the same period.

Additionally, conflict with tigers caused 275 human deaths between 2014 and 2019

West Bengal had the highest number of human deaths caused by elephants and tigers during these periods — 403 died due to conflict with elephants, and 74 due to tigers. West Bengal is followed by Odisha in the number of human deaths caused by elephants (397) and by Maharashtra in the number of deaths caused by tigers (74). Among elephant deaths caused in conflict with humans, electrocution is the primary cause, accounting for nearly two-thirds of the deaths (333 out of 510).

## ELEPHANT DEATHS, ALL INDIA (2014-15 TO 2018-19)

### ELECTROCUTION

333

### TRAIN ACCIDENTS

77

### POACHING

71

### POISONING

29

### STATE-WISE HUMAN DEATHS DUE TO TIGERS (2014 TO 2019)

West Bengal 74

Maharashtra 74

Uttar Pradesh 49

Madhya Pradesh 38

Uttarakhand 10

### STATE-WISE HUMAN DEATHS DUE TO ELEPHANTS (2014-15 TO 2018-19)

West Bengal 403

Odisha 397

Jharkhand 349

Assam 332

Chhattisgarh 289

### Source

27) Consider the following statements regarding Loktak Lake.

1. Loktak lake is the largest freshwater lake in India and is famous for the phumdis floating over it.
2. Keibul Lamjao National Park located here is the only floating national park in the world.
3. The park is the last natural refuge of the endangered Sangai.

Which of the above statements is/are correct?

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

Solution: c)

Loktak Lake is the largest freshwater lake in Northeast India and is famous for the phumdis (heterogeneous mass of vegetation, soil and organic matter at various stages of decomposition) floating over it. The lake is located at Moirang in Manipur state, India.

Located on this phumdi, Keibul Lamjao National Park is the only floating national park in the world. The park is the last natural refuge of the endangered Sangai (state animal), or Manipur brown-antlered deer, one of three subspecies of Eld's deer.

Considering the ecological status and its biodiversity values, the lake was initially designated as a wetland of international importance under the Ramsar Convention on 23 March 1990. It was also listed under

the Montreux Record on 16 June 1993, "a record of Ramsar sites where changes in ecological character have occurred, are occurring or are likely to occur".

[Source](#)

[Source](#)

28) Consider the following statements regarding Conservation of Migratory Species of Wild Animals.

1. Conservation of Migratory Species of Wild Animals functions under the UN Environment Programme (UNEP).
2. Appendix-I lists species in need of global cooperation for favourable conservation status, while Appendix-II lists those threatened with extinction.
3. If listed on Appendix-I, it would facilitate trans-boundary conservation efforts of those species.

Which of the above statements is/are correct?

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

Solution: b)

CMS is a treaty agreed by 129 countries plus the European Union, and functions under the UN Environment Programme (UNEP). It works for protection and conservation of species that migrate across frontiers and are facing threats of extinction or require urgent attention. CMS aims to bring together different countries that are part of range of a given species, and facilitate coherent conservation and protection regimes in a group of countries.

Appendix-I lists species threatened with extinction, while Appendix-II lists those in need of global cooperation for favourable conservation status. If listed on Appendix-I, it would facilitate trans-boundary conservation efforts of these species.

[Source](#)

29) Consider the following statements regarding Bengal florican.

1. Bengal florican is a bustard species native to the Indian subcontinent.
2. Its habitat includes Terai and Dooars grassland regions of the Indo-Gangetic and Brahmaputra floodplains.
3. Recently India proposed the inclusion of Bengal florican on Appendix-I of Conservation of Migratory Species of Wild Animals.

Which of the above statements is/are correct?

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

Solution: d)

Bengal florican: This too is a critically endangered species of bird that belongs to the bustard family. In its proposal, India said the present population of the South Asian subspecies has shrunk to around 1,000 individuals and its present habitat been restricted to the Terai and Dooars grassland regions of the Indo-Gangetic and Brahmaputra floodplains.

[Source](#)

30) Consider the following statements regarding koala.

1. Koalas live in eastern Australia.

2. Koalas typically inhabit open eucalypt woodlands, and the leaves of these trees make up most of their diet.

3. It is recognisable by its stout, tailless body and large head.

Which of the above statements is/are correct?

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

Solution: d)

The koala is an arboreal herbivorous marsupial native to Australia. The koala is found in coastal areas of the mainland's eastern and southern regions, inhabiting Queensland, New South Wales, Victoria, and South Australia. It is easily recognisable by its stout, tailless body and large head with round, fluffy ears and large, spoon-shaped nose. Koalas typically inhabit open eucalypt woodlands, and the leaves of these trees make up most of their diet. Because this eucalypt diet has limited nutritional and caloric content, koalas are largely sedentary and sleep up to 20 hours a day. Koalas are listed as Vulnerable by the International Union for Conservation of Nature.

31) Consider the following statements regarding Pangolins.

1. Pangolins are the only mammals wholly-covered in scales and they use those scales to protect themselves from predators in the wild.

2. They are one of the most trafficked mammals in Asia.

3. Indian Pangolin is listed under Schedule I Part I of the Wildlife (Protection) Act, 1972.

Which of the above statements is/are correct?

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

Solution: d)

Though many think of them as reptiles, pangolins are actually mammals. They are the only mammals wholly-covered in scales and they use those scales to protect themselves from predators in the wild. If under threat, a pangolin will immediately curl into a tight ball and will use their sharp-scaled tails to defend themselves.

Pangolins eat ants, termites and larvae and are often known as "the scaly anteater." Because they have no teeth, pangolins pick up food with their sticky tongues, which can sometimes reach lengths greater than the animal's body.

They certainly are one of the most trafficked mammals in Asia and, increasingly, Africa. Pangolins are in high demand in countries like China and Vietnam. Their meat is considered a delicacy and pangolin scales are used in traditional medicine and folk remedies. All eight pangolin species are protected under national and international laws. But there is still growing international illegal trade in pangolins.

Out of the eight species of pangolin, the Indian Pangolin and the Chinese Pangolin are found in India. Both these species are listed under Schedule I Part I of the Wildlife (Protection) Act, 1972.

[Source](#) [Source](#)

32) Consider the following statements regarding Amazon rainforest.

1. Amazon rainforest is a moist broadleaf tropical rainforest in the Amazon biome.

2. The forest spreads across Brazil, Paraguay, Bolivia, Peru and Ecuador.

3. The majority of the forest is contained within Brazil.

Which of the above statements is/are correct?

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

Solution: c)

The Amazon rainforest is a moist broadleaf tropical rainforest in the Amazon biome that covers most of the Amazon basin of South America.

The majority of the forest is contained within Brazil, with 60% of the rainforest, followed by Peru with 13%, Colombia with 10%, and with minor amounts in Venezuela, Ecuador, Bolivia, Guyana, Suriname and French Guiana.

Source

33) Consider the following statements regarding 2019 World Air Quality Report.

- 1. The 2019 World Air Quality Report is released by the pollution tracker IQAir and Greenpeace.
- 2. The ranking is based on a comparison of PM2.5 levels.
- 3. China emerged as the most polluted country for PM 2.5.

Which of the above statements is/are correct?

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

Solution: a)

World Air Quality Report 2019 was released by the pollution tracker IQAir and Greenpeace. The ranking is based on a comparison of PM 2.5 levels. Bangladesh emerged as the most polluted country for PM 2.5. Pakistan, Mongolia, Afghanistan and India followed behind respectively.

While cities in India, on average, exceed the WHO target for annual PM2.5 exposure by 500%, national air pollution decreased by 20% from 2018 to 2019, with 98% of cities experiencing improvements. These improvements are believed to be largely a result of economic slowdown, IQAir said.

<b>MOST POLLUTED COUNTRIES (ACCOUNTING FOR POPULATION)</b>			
<b>Rank</b>	<b>Country</b>	<b>PM2.5 (micrograms/cu. m)</b>	<b>Population</b>
1	Bangladesh	83.30	166 mn
2	Pakistan	65.81	201 mn
3	Mongolia	62.00	3 mn
4	Afghanistan	58.80	36 mn
5	India	58.08	1,354 mn

# MOST POLLUTED CITIES IN 2019

**Rank City** **PM2.5**  
**(micrograms/cu. m)**

1	Ghaziabad (India)	110.2
2	Hotan (China)	110.1
3	Gujranwala (Pak)	105.3
4	Faisalabad (Pak)	104.6
5	Delhi (India)	98.6
6	Noida (India)	97.7
7	Gurgaon (India)	93.1
8	Raiwind (Pak)	92.2
9	Greater Noida (India)	91.3
10	Bandhwari (India)	90.5

## Source

34) Over the last few weeks, photographs of “red snow” around Ukraine’s Vernadsky Research Base, off the coast of Antarctica’s northernmost peninsula, have gone viral. Consider the following statements regarding Red snow.

1. The red colour is because of the alga species that exists in snow in the polar and glacial regions, which carries a red pigment to keep itself warm.
2. The red snow slows the process of melting of ice.

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: b)

Over the last few weeks, photographs of “red snow” around Ukraine’s Vernadsky Research Base, off the coast of Antarctica’s northernmost peninsula, have gone viral. “Red snow” or “watermelon” is a phenomenon that has been known since ancient times. Now, it raises concerns about climate change.

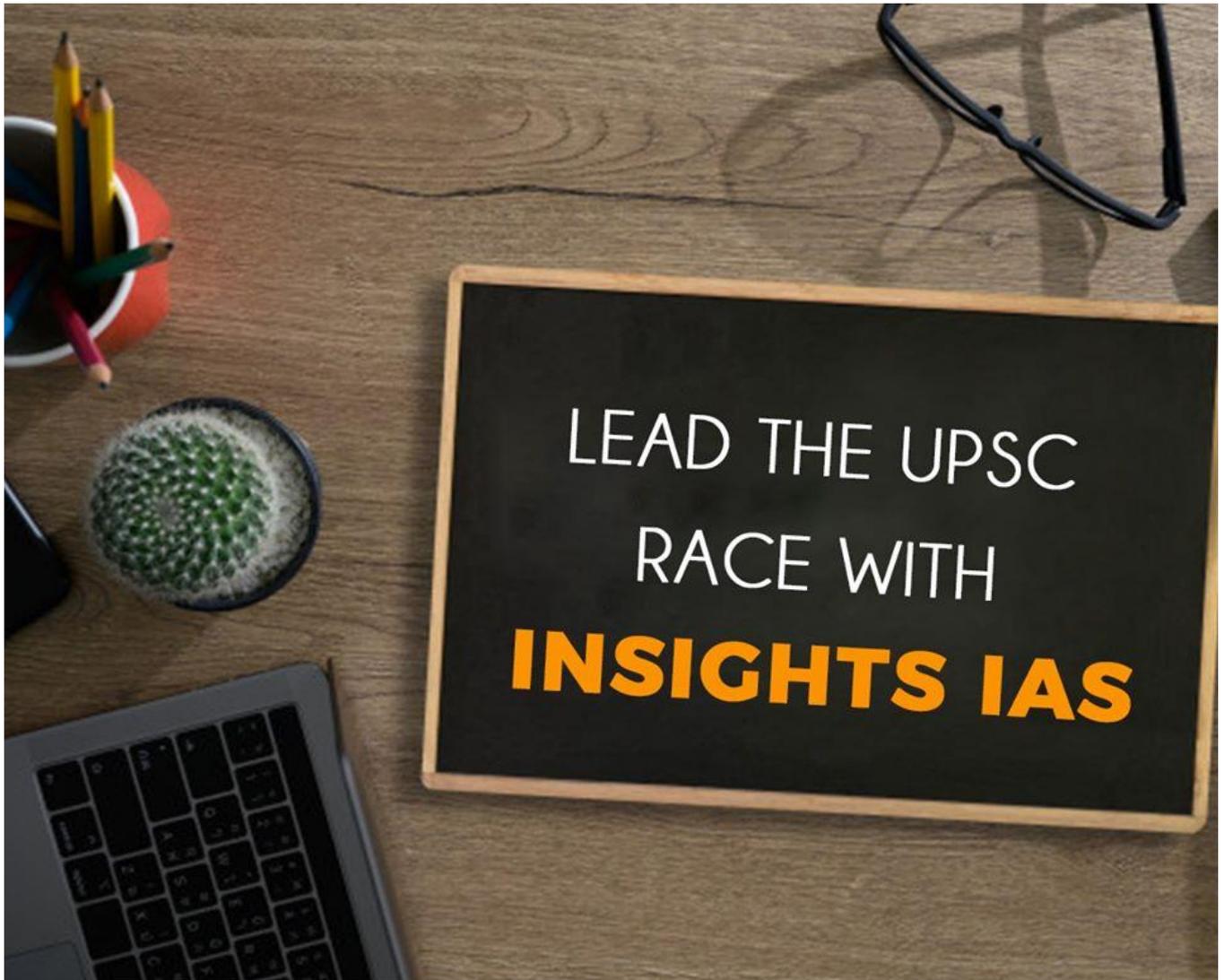
Aristotle is believed to be one of the first to give a written account of red snow, over 2,000 years ago. In History of Animals, Aristotle wrote: “And, by the way, living animals are found in substances that are usually supposed to be incapable of putrefaction; for instance, worms are found in long-lying snow; and snow of this description gets reddish in colour, and the grub that is engendered in it is red, as might have been expected, and it is also hairy.”

What Aristotle described as worms and grub, the scientific world today calls algae. The Greek philosopher was right: it is the algae that give the snow its red tinge. This alga species, *Chlamydomonas Chlamydomonas nivalis*, exists in snow in the polar and glacial regions, and carries a red pigment to keep itself warm .

In turn, the red snow causes the surrounding ice to melt faster, a 2017 study from Alaska Pacific University said. The more the algae packed together, the redder the snow. And the darker the tinge, the more the heat absorbed by the snow. Subsequently, the ice melts faster.

In the melting of snow in the Arctic, the key drivers have been snow and ice albedo, according to a 2016 study in the journal Nature.

[Source](#)



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### 3. Government Schemes and Programmes

1) Consider the following statements regarding National Pension Scheme for Traders and Self-Employed Persons Yojana.

1. National Pension Scheme for Traders and Self-Employed Persons Yojana is a pension scheme for shopkeeper's/ retail traders and self-employed persons for providing monthly minimum assured pension.
2. Laghu Vyaparis whose annual turnover does not exceed Rs 1.5 crore, based on self-declaration are eligible.
3. The person should be an income-tax assessee to be eligible to join the Scheme.

Which of the above statements is/are correct?

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

Solution: a)

The National Pension Scheme for Traders and Self Employed Persons Yojana (Pradhan Mantri Laghu Vyapari Maan-dhan Yojana) is a pension scheme for shopkeeper's/ retail traders and self-employed persons for providing monthly minimum assured pension of Rs 3000/- for the entry age group of 18-40 years. It is a voluntary and contribution based central sector scheme.

Eligibility:

- The scheme is open to Laghu Vyaparis, who are self-employed and working as shop owners, retail traders, rice mill owners, oil mill owners, workshop owners, commission agents, brokers of real estate, owners of small hotels, restaurants and other Laghu Vyaparis. The operations of such small traders are generally characterized by family owned establishments, small scale of operations, labour intensive, inadequate financial aid, seasonal in nature and extensive unpaid family labour.
- Age group of 18-40 years
- Laghu Vyapari whose annual turnover does not exceed Rs 1.5 crore, based on self-declaration. GSTIN is required only for those with turnover above Rs. 40 lakhs.
- Who has a savings bank account in his/her name and Aadhar number.

The following are not eligible to join the Scheme

- If covered under National Pension Scheme contributed by the Central Government or Employees' State Insurance Corporation Scheme under the Employees' State Insurance Act, 1948 (34 of 1948) or Employees' Provident Fund Scheme under the Employees' Provident Fund and Miscellaneous Provisions Act, 1952 (19 of 1952) or
- Is an income-tax assessee.

[Source](#)

2) Consider the following statements regarding National Mission for Sustainable Agriculture (NMSA).

1. National Mission for Sustainable Agriculture (NMSA) has been formulated for enhancing agricultural productivity especially in rainfed areas.
2. It promotes location specific Integrated/Composite Farming Systems.
3. Use of land use survey, soil profile study and soil analysis.

Which of the above statements is/are correct?

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

Solution: d)

National Mission for Sustainable Agriculture (NMSA) has been formulated for enhancing agricultural productivity especially in rainfed

Mission Objectives:

- To make agriculture more productive, sustainable, remunerative and climate resilient by promoting location specific Integrated/Composite Farming Systems;
- To conserve natural resources through appropriate soil and moisture conservation measures;
- To adopt comprehensive soil health management practices based on soil fertility maps, soil test based application of macro & micro nutrients, judicious use of fertilizers etc.;
- To optimize utilization of water resources through efficient water management to expand coverage for achieving 'more crop per drop';

Creating database on soil resources through land use survey, soil profile study and soil analysis on GIS platform to facilitate adoption of location and soil - specific crop management practices & optimize fertilizer use;

[Source](#)

3) National Mission for Sustainable Agriculture (NMSA) focuses on

1. Rainfed Area Development
2. On Farm Water Management
3. Soil Health Management
4. Climate Change and Sustainable Agriculture

Select the correct answer code:

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

Solution: d)

NMSA has following four (4) major programme components or activities:

1. Rainfed Area Development
2. On Farm Water Management
3. Soil Health Management
4. Climate Change and Sustainable Agriculture

[Source](#)

4) Consider the following statements about *One Stop Centre (OSC) scheme*.

1. *One Stop Centres* are being established across the country to provide integrated support and assistance under one roof to women affected by violence, both in private and public spaces.
2. The OSC will support only women above 18 years of age affected by violence, whereas those below 18 years are supported by National Commission for Protection of Child Rights (NCPCR).
3. The Scheme is funded through *Nirbhaya Fund*.

Which of the above statements is/are correct?

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

Solution: d)

The Government of India is implementing *One Stop Centre (OSC) scheme* for setting up One Stop Centre since 1st April 2015 to support women affected by violence.

Popularly known as Sakhi, Ministry of Women and Child Development (MWCD) has formulated this Centrally Sponsored Scheme.

It is a sub – scheme of Umbrella Scheme for National Mission for Empowerment of women including Indira Gandhi Matritiv Sahyaog Yojana.

Under the scheme, One Stop Centres are being established across the country to provide integrated support and assistance under one roof to women affected by violence, both in private and public spaces in phased manner.

Target group: The OSC will support all women including girls below 18 years of age affected by violence, irrespective of caste, class, religion, region, sexual orientation or marital status.

The Scheme will be funded through *Nirbhaya Fund*. The Central Government will provide 100% financial assistance to the State Government /UT Administrations under the Scheme.

#### [Source](#)

5) Consider the following statements regarding Atal Jal Scheme.

1. Atal Jal is a World Bank-funded, central scheme aimed at improving groundwater management.
2. The focus will be on arresting the rate of decline of groundwater levels as well as water consumption.
3. It envisages community-led Water Security Plans.

Which of the above statements is/are correct?

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

Solution: d)

Atal Bhujal Yojana, or Atal Jal is a World Bank-funded, central scheme aimed at improving groundwater management. It was approved by the World Bank Board in June 2018.

For now, the Atal Bhujal Yojana will be implemented in seven states – Gujarat, Haryana, Karnataka, Madhya Pradesh, Maharashtra, Rajasthan and UP over five years from 2020-21 to 2024-25. According to Jal Shakti Ministry sources, if the scheme meets its objectives in water-stressed areas, it will be extended to other parts of the country.

The focus will be on arresting the rate of decline of groundwater levels as well as water consumption. The scheme will seek to strengthen the institutional framework and bring about behavioural changes at community level for sustainable groundwater resource management. It envisages community-led Water Security Plans.

#### [Source](#)

6) Consider the following statements about Project Manav.

1. Project Manav is a new human atlas initiative launched to create a unified database of molecular network of all the tissues in the human body and to derive a holistic picture of working of the human body.
2. The project has been launched by the Department of Science and 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)

A new human atlas initiative has been launched to create a unified database of molecular network of all the tissues in the human body and to derive a holistic picture of working of the human body. The project named

Manav has been launched by the Department of Biotechnology and Persistent Systems, a biotechnology company.

This mega project will collate and integrate molecular information on human tissues and organs that currently lie hidden in research articles in an unstructured and disorganised form. The project would utilise large biological community, both students and scientists, for extracting and adding the information from scientific literature at the level of cells and organs.

[Source](#)

7) Consider the following statements about *Kisan Credit Card (KCC)* scheme.

1. Kisan Credit Card (KCC) scheme has been extended to fisheries and animal husbandry farmers to help them meet their working capital needs.
2. For the farmers, the loans taken under Kisan Credit Card (KCC) scheme can be repaid after harvest.
3. Interest subvention is available for farmers only in case of prompt repayment.

Which of the above statements is/are correct?

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

Solution: c)

The Government of India has extended the facility of Kisan Credit Card (KCC) to fisheries and animal husbandry farmers to help them meet their working capital needs. The KCC facility will help fisheries and animal husbandry farmers to meet their short-term credit requirements of rearing of animals, poultry birds, fish, shrimp, other aquatic organisms and capture of fish.

Under KCC facility, Interest subvention is available for farmers @ 2% per annum at the time of disbursement of loan and additional interest subvention @ 3 % per annum in case of prompt repayment as Prompt Repayment Incentive.

One of the advantages of the KCC Scheme to the farmers is the Repayment only after harvest.

[Source](#)

8) Consider the following statements regarding *SUTRA PIC*.

1. *SUTRA PIC* is a programme to research on 'indigenous' cows.
2. It is led by the Department of Biotechnology.
3. The programme aims to develop standards for traditionally processed dairy products of Indian-origin cows.

Which of the above statements is/are correct?

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

Solution: c)

The government has unveiled a programme to research on 'indigenous' cows. To be funded by multiple scientific ministries, the initiative, SUTRA PIC, is led by the Department of Science and Technology (DST). It has the Department of Biotechnology, the Council of Scientific and Industrial Research, the Ministry for AYUSH (Ayurveda, Unani, Siddha, Homoeopathy) among others and the Indian Council of Medical Research as partners.

SUTRA PIC or Scientific Utilisation Through Research Augmentation-Prime Products from Indigenous Cows, has five themes: Uniqueness of Indigenous Cows, Prime-products from Indigenous Cows for Medicine and Health, Prime-products from Indigenous Cows for Agricultural Applications, Prime-products from Indigenous Cows for Food and Nutrition, Prime-products from indigenous cows-based utility items.

Aims and objectives:

- Scientific research on the complete characterisation of milk and milk products derived from Indian indigenous cows.
- Scientific research on nutritional and therapeutic properties of curd and ghee prepared from indigenous breeds of cows by traditional methods.
- Development of standards for traditionally processed dairy products of Indian-origin cows, etc.

[Source](#)

9) Consider the following statements.

1. Central Consumer Protection Authority is being constituted under the provisions of Consumer Protection Act, 2019.
2. Consumer Protection Act, 2019 recognises offences such as providing false information regarding the quality or quantity of a good or service, and misleading advertisement.

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 the Central Consumer Protection Authority?**

The authority is being constituted under Section 10(1) of The Consumer Protection Act, 2019. The Act replaced The Consumer Protection Act, 1986, and seeks to widen its scope in addressing consumer concerns. The new Act recognises offences such as providing false information regarding the quality or quantity of a good or service, and misleading advertisements. It also specifies action to be taken if goods and services are found “dangerous, hazardous or unsafe”.

The CCPA, introduced in the new Act, aims to protect the rights of the consumer by cracking down on unfair trade practices, and false and misleading advertisements that are detrimental to the interests of the public and consumers.

The CCPA will have the powers to inquire or investigate into matters relating to violations of consumer rights or unfair trade practices suo motu, or on a complaint received, or on a direction from the central government.

[Source](#)

10) Consider the following statements regarding *Protection of Children from Sexual Offences Act (POCSO Act)*.

1. The Act defines a child as any person below eighteen years of age.
2. It is the legal duty upon a person who has knowledge that a child has been sexually abused to report the offence.
3. The POCSO Act is only applicable to child survivors and adult offenders.

Which of the above statements is/are correct?

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

Solution: d)

The *Protection of Children from Sexual Offences Act (POCSO Act) 2012* was formulated in order to effectively address sexual abuse and sexual exploitation of children.

The Act defines a child as any person below eighteen years of age. It defines different forms of sexual abuse, including penetrative and non-penetrative assault, as well as sexual harassment and pornography.

The Act also provides for mandatory reporting of sexual offences. This casts a legal duty upon a person who has knowledge that a child has been sexually abused to report the offence; if he fails to do so, he may be punished with six months' imprisonment and/ or a fine.

The POCSO Act is only applicable to child survivors and adult offenders. In case two children have sexual relations with each other, or in case a child perpetrates a sexual offence on an adult, the Juvenile Justice (Care and Protection of Children) Act, 2000, will apply.

[Source](#)

11) The official committees that have estimated the number of people living in poverty in India are

1. Y K Alagh committee
2. D T Lakdawala committee
3. Suresh Tendulkar committee
4. C Rangarajan committee

Select the correct answer code:

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

Solution: d)

Six official committees have so far estimated the number of people living in poverty in India — the working group of 1962; V N Dandekar and N Rath in 1971; Y K Alagh in 1979; D T Lakdawala in 1993; Suresh Tendulkar in 2009; and C Rangarajan in 2014.

[Source](#)

## 4. Science and Technology

- 1) Lunar Evacuation System Assembly (LESA), recently seen in news is related to
- Commercial lunar lander of NASA
  - Rescue an injured astronaut on the lunar surface
  - Polar rover to scout for water
  - Successor to Chandrayaan-2

Solution: b)

Developed by the European Space Agency (ESA), LESA is a pyramid-like structure whose purpose is to rescue an astronaut should he or she suffer an injury on the lunar surface.

LESA can be operated by a single astronaut to rescue a fallen colleague. It enables an astronaut to lift their crewmate onto a mobile stretcher in less than 10 minutes, before carrying them to the safety of a nearby pressurised lander.

- 2) Consider the following statements regarding H9N2 Virus, recently seen in news.
- H9N2 is a subtype of the influenza A virus, which causes human influenza as well as bird flu.
  - H9N2 viruses are found worldwide in wild birds and are endemic in poultry in many countries.
  - H9N2 virus infections in humans are rare, but likely under-reported due to typically mild symptoms of the infections.

Which of the above statements is/are correct?

- 1, 2
- 1, 3
- 2, 3
- 1, 2, 3

Solution: d)

India's first case of Avian influenza or Bird flu caused by a rare variety of H9N2 virus has been reported in a 17-month-old boy of Maharashtra.

H9N2 is a subtype of the influenza A virus, which causes human influenza as well as bird flu. According to the US National Centre for Biotechnology Information (NCBI), H9N2 viruses are found worldwide in wild birds and are endemic in poultry in many areas. H9N2 viruses could potentially play a major role in the emergence of the next influenza pandemic. According to the World Health Organization (WHO), with avian influenza viruses circulating in poultry, there is a risk for sporadic infection and small clusters of human cases due to exposure to infected poultry or contaminated environments.

H9N2 virus infections in humans are rare, but likely under-reported due to typically mild symptoms of the infections. Cases of human infection have been observed in Hong Kong, China, Bangladesh, Pakistan, and Egypt.

[Source](#)

- 3) Xenobots, recently seen in news is
- Artificial intelligence (AI) based Super Computer
  - India's first humanoid robot
  - World's first living robots.
  - Half-humanoid robot

Solution: c)

Scientists in the United States have created the world's first "living machines" — tiny robots built from the cells of the African clawed frog, that can move around on their own.

They have named the millimetre-wide robots "xenobots" — after the species of aquatic frog found across sub-Saharan Africa from Nigeria and Sudan to South Africa, *Xenopus laevis*.

"Scientists have repurposed living cells scraped from frog embryos and assembled them into entirely new life-forms". The xenobots "can move toward a target, perhaps pick up a payload (like a medicine that needs to be carried to a specific place inside a patient) — and heal themselves after being cut".

#### [Source](#)

4) Consider the following statements regarding Facial recognition system.

1. Facial recognition system identifies a person by analyzing patterns based on the person's facial textures and shape.
2. The accuracy of facial recognition system as a biometric technology is much higher than iris recognition and fingerprint recognition.
3. It is increasingly being used for validating identity, auto-tagging digital photos and for targeted advertising.

Which of the above statements is/are correct?

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

Solution: c)

A facial recognition system is a technology capable of identifying or verifying a person from a digital image or a video frame from a video source.

They work by comparing selected facial features from given image with faces within a database. It is also described as a Biometric Artificial Intelligence based application that can uniquely identify a person by analyzing patterns based on the person's facial textures and shape.

Although the accuracy of facial recognition system as a biometric technology is lower than iris recognition and fingerprint recognition, it is widely adopted due to its contactless and non-invasive process

It is increasingly being used for everything: from unlocking your phone to validating your identity, from auto-tagging digital photos to finding missing persons, and from targeted advertising to law enforcement.

#### [Source](#)

5) Human-to-human transmission of coronavirus can happen through

1. Respiratory droplets
2. Contact
3. Fomites

Select the correct answer code:

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

Solution: d)

According to the World Health Organization, during previous outbreaks due to other coronavirus, human-to-human transmission occurred through droplets, contact and fomites (objects or materials which are likely to carry infection, such as clothes, utensils, and furniture), suggesting that the transmission mode of the 2019-nCoV can be identical.

#### [Source](#)

6) Consider the following statements regarding Vyommitra.

1. Vyommitra is a half-humanoid robot developed by *Council of Scientific and Industrial Research (CSIR)*.
2. Vyommitra will be sent to space as a trial before Gaganyaan mission.

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)

ISRO introduced Vyommitra, a half-humanoid.

“I am Vyom Mitra,” the half-humanoid tells her visitors. Detailing her functions, she says, “I can do switch panel operations, ECLSS [environment control and life support systems functions, be a companion, converse with the astronauts, recognise them and also respond to their queries.”

Vyommitra will be sent to space as a trial before Gaganyaan, which will be launched in 2022. Dr. Sivan said that the humanoid will simulate the human functions required for space before real astronauts take off before August 2022.

#### [Source](#)

7) Polycrack technology, recently seen in news is related to

- a) *Beekeeping in controlled environment*
- b) Building Earthquake-resistant *structures*
- c) Detecting fake passports and currency notes
- d) Converting feedstock into hydrocarbon liquid fuels

Solution: d)

The country’s first Government-owned Waste-to-Energy Plant was recently commissioned at the Mancheswar Carriage Repair Workshop in Odisha.

The plant, a patented technology called Polycrack, is first-of-its-kind in the Indian Railways and fourth in the country. It converts multiple feed stocks into hydrocarbon liquid fuels, gas, carbon and water.

What is Polycrack?

It is the world’s very first patented heterogeneous catalytic process which converts multiple feedstocks into hydrocarbon liquid fuels, gas, carbon as well as water.

The waste generated will become the feeder material for the waste to energy plant.

The energy which will be produced at the plant, will be in the form of light diesel oil and this oil will be used to light furnaces.

8) Consider the following statements regarding Darknet.

1. Darknet refers to the deep hidden internet platform that is used for narcotics sale, exchange of pornographic content and other illegal activities by using the secret alleys of the onion router (ToR) to stay away from the surveillance of law enforcement agencies.
2. Owing to its end-to-end encryption, darknet is considered very tough to crack when it comes to investigating criminal activities being rendered over it.

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 Narcotics Control Bureau (NCB) said it has arrested the country's first 'darknet' narcotics operative, who allegedly shipped hundreds of psychotropic drug parcels abroad in the garb of sex stimulation medicines.

Darknet refers to the deep hidden internet platform that is used for narcotics sale, exchange of pornographic content and other illegal activities by using the secret alleys of the onion router (ToR) to stay away from the surveillance of law enforcement agencies. Owing to its end-to-end encryption, darknet is considered very tough to crack when it comes to investigating criminal activities being rendered over it.

Darknets in general may be used for various reasons, such as:

- Computer crime (cracking, file corruption, etc.)
- Protecting dissidents from political reprisal
- File sharing (warez, personal files, pornography, confidential files, illegal or counterfeit software, etc.)
- To better protect the privacy rights of citizens from targeted and mass surveillance
- Sale of restricted goods on darknet markets
- Whistleblowing and news leaks
- Purchase or sale of illicit or illegal goods or services<sup>[18]</sup>
- Circumventing network censorship and content-filtering systems, or bypassing restrictive firewall policies

[Source](#)

9) *Ploonet*, sometimes in news refer to

- a) A moon that becomes a planet.
- b) Device to rescue astronauts on the surface of Moon.
- c) Mission to perform a flyby study of the Pluto system
- d) None of the Above

Solution: a)

Ploonet is the new word the scientific community has come up with to describe a moon that becomes a planet. A moon can become a planet if it leaves the orbit of its parent planet and takes up residence in a stable orbit around its star.

At this point, this orbiting rock is neither a moon nor a planet, hence the term, ploonet.

10) Consider the following statements regarding Aditya-L1 mission.

1. Aditya-L1 mission will be ISRO's first space-based astronomy mission.
2. It will be launched using the Polar Satellite Launch Vehicle (PSLV) in XL configuration.
3. It will carry out round-the-clock imaging of the Sun.

Which of the above statements is/are correct?

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

Solution: b)

Indian Space Research Organisation (ISRO) is also preparing to send its first scientific expedition to study the Sun. Named Aditya-L1, the mission, expected to be launched early next year, will observe the Sun from a close distance, and try to obtain information about its atmosphere and magnetic field. ISRO categorises Aditya L1 as a 400 kg-class satellite, that will be launched using the Polar Satellite Launch Vehicle (PSLV) in XL configuration. The space-based observatory will have seven payloads (instruments) on board to study the Sun's corona, solar emissions, solar winds and flares, and Coronal Mass Ejections (CMEs), and will carry out round-the-clock imaging of the Sun.

Aditya L1 will be ISRO's second space-based astronomy mission after AstroSat, which was launched in September 2015.

#### [Source](#)

11) Indian Space Research Organisation (ISRO) is preparing to send its first scientific expedition to study the Sun. Why is studying the Sun important?

1. The solar weather and environment affects the weather of the entire solar system.
2. Variations in solar weather can change the orbits of satellites or shorten their lives and cause power blackouts.
3. To learn about and track Earth-directed solar storms, and to predict their impact, continuous solar observations are needed.

Which of the above statements is/are correct?

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

Solution: d)

Every planet, including Earth and the exoplanets beyond the Solar System, evolves — and this evolution is governed by its parent star. The solar weather and environment, which is determined by the processes taking place inside and around the sun, affects the weather of the entire system. Variations in this weather can change the orbits of satellites or shorten their lives, interfere with or damage onboard electronics, and cause power blackouts and other disturbances on Earth. Knowledge of solar events is key to understanding space weather. To learn about and track Earth-directed storms, and to predict their impact, continuous solar observations are needed. Every storm that emerges from the Sun and heads towards Earth passes through L1, and a satellite placed in the halo orbit around L1 of the Sun-Earth system has the major advantage of continuously viewing the Sun without any occultation/eclipses, ISRO says on its website.

#### [Source](#)

12) Consider the following statements regarding Severe acute respiratory syndrome (SARS).

1. Severe acute respiratory syndrome (SARS) is caused due to a type of coronavirus, called the SARS coronavirus (SARS-CoV).
2. SARS is believed to be an animal virus, possibly transmitted from bats to civet cats to human beings.
3. There are no antibiotics or safe and effective vaccines that work against it.

Which of the above statements is/are correct?

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

Solution: d)

Like the 2019-nCoV or Wuhan virus, severe acute respiratory syndrome (SARS) is also caused due to a type of coronavirus, called the SARS coronavirus (SARS-CoV).

SARS is believed to be an animal virus, possibly transmitted from bats to civet cats to human beings. Both SARS and 2019-nCoV are types of viral pneumonia, and there are no antibiotics or safe and effective vaccines that work against them.

The SARS virus first infected human beings in the Guangdong province of southern China in 2002, with the region still considered a potential zone of its re-emergence. It was considered the first major novel infectious disease to affect the international community in the 21st century.

The epidemic affected 26 countries and resulted in more than 8,000 cases in 2003. Mainland China and Hong Kong together accounted for 87% of all infections and 84 per cent of deaths.

SARS is transmitted from person to person, and the symptoms include fever, malaise, headache, myalgia, diarrhoea and shivering. According to the WHO, fever is the most frequently reported symptom, and cough, shortness of breath and diarrhoea follow in the first or second week of illness.

Other countries where the SARS CoV spread during the epidemic include Hong Kong, Canada, Chinese Taipei, Singapore and Vietnam. Since the epidemic, a small number of cases have occurred due to laboratory accidents or through animal-to-human transmission.

As per a WHO report, three cases of SARS infections were detected in India between November 1, 2002 and July 31, 2003.

#### [Source](#)

13) Technical textiles are futuristic and niche segment of textiles, which are used in

1. Agriculture
2. Railway tracks
3. Healthcare
4. Bullet proof jackets
5. Roads
6. High altitude combat gear

Select the correct answer code:

- a) 1, 2, 3, 4, 5
- b) 2, 3, 4, 5, 6
- c) 1, 3, 4, 5, 6
- d) 1, 2, 3, 4, 5, 6

Solution: d)

The government approved setting up of a National Technical Textiles Mission with a total outlay of Rs 1,480 crore. The mission will have a four-year implementation period from 2020-21 to 2023-24.

“The mission will aim at average growth rate of 15-20% per annum taking the level of domestic market size to \$40-50 billion by the year 2024 through market development, market promotion, international technical collaborations, investment promotions and ‘Make in India’ initiatives,” an official statement said.

Technical textiles are futuristic and niche segment of textiles, which are used for various applications ranging from agriculture, roads, railway tracks, sportswear, healthcare, bullet proof jackets, fire proof jackets, high altitude combat gear and space applications.

The use of technical textiles in agriculture, aquaculture, dairy, poultry, Jal Jivan Mission, Swachh Bharat Mission, Ayushman Bharat will bring an overall improvement in cost economy, water and soil conservation, better agricultural productivity and higher income to farmers per acre of land holding in addition to promotion of manufacturing and exports activities in India, the government said.

#### [Source](#)

14) Consider the following statements regarding novel coronavirus (COVID-19).

1. The novel coronavirus disease that emerged in Wuhan, China, is now in at least 40 countries around the world, spanning every continent.
2. It has been described as insidious.

3. WHO has declared it as a “Public Health Emergency of International Concern”.

Which of the above statements is/are correct?

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

Solution: b)

The novel coronavirus disease that emerged in Wuhan, China, in the final days of last year, is now in at least 47 countries around the world, spanning every continent except Antarctica.

The World Health Organisation (WHO) and other health authorities have so far been referring only to a COVID-19 “outbreak”, which WHO on January 30 declared was a “Public Health Emergency of International Concern”. It has been described as “insidious” because a large portion of infected people are well enough to go about their daily business, potentially spreading it to others.

[Source](#)

[Source](#)



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## 5. International Relations and Organisations

1) Consider the following statements about International Court of Justice (ICJ).

1. The International Court of Justice (ICJ) is the principal judicial body of the UN.
2. The International Court of Justice is composed of 15 judges elected to five-year terms of office by the United Nations General Assembly and the Security Council.
3. Judges are not eligible for re-election.

Which of the above statements is/are correct?

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

Solution: b)

The International Court of Justice (ICJ) is the principal judicial body of the UN. Established in 1946 to replace the Permanent Court of International Justice, the ICJ mainly operates under the statute of its predecessor, which is included in the UN Charter.

It has two primary functions: to settle legal disputes submitted by States in accordance with established international laws, and to act as an advisory board on issues submitted to it by authorized international organizations.

Members of the Court:

The International Court of Justice is composed of 15 judges elected to nine-year terms of office by the United Nations General Assembly and the Security Council. These organs vote simultaneously but separately. In order to be elected, a candidate must receive an absolute majority of the votes in both bodies. In order to ensure a measure of continuity, one third of the Court is elected every three years. Judges are eligible for re-election.

2) Which of the following groups are correctly matched.

1. Hezbollah: Lebanon
2. Houthis: Yemen
3. Boko Haram: Nigeria
4. Al-Shabab: Somalia

Select the correct answer code:

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

Solution: d)

3) Consider the following statements regarding India's assistance and the countries associated.

1. Operation Vanilla: Madagascar
2. Operation Samudra Maitri: Indonesia
3. Operation Maitri: Bangladesh

Select the correct answer code:

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

Solution: c)

Recently India sent an amphibious warship, *INS Airavat*, to Madagascar in the Indian Ocean Region (IOR) to help in rescue efforts after the island nation was hit by a cyclone. As part of Operation Vanilla, the Navy delivered clothing, food and medicines, and also provided diving and communication assistance for evacuation.

Operation Samudra Maitri is the relief effort launched by India to assist the victims of the 2018 Sulawesi earthquake and tsunami in Indonesia.

Operation Maitri (Operation Amity) was a *rescue and relief* operation in *Nepal* by the government of *India* and *Indian armed forces* in the aftermath of the April 2015 *Nepal earthquake*.

#### [Source](#)

4) Consider the following statements regarding *International Maritime Organization (IMO)*.

1. It is independent to United Nations.
2. It is the global standard-setting authority for the safety, security and environmental performance of international shipping.
3. India was re-elected as Member to the Council of the International Maritime Organization for two years (2018-19).

Which of the above statements is/are correct?

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

Solution: d)

The International Maritime Organization – is the United Nations specialized agency with responsibility for the safety and security of shipping and the prevention of marine pollution by ships.

The IMO's primary purpose is to develop and maintain a comprehensive regulatory framework for shipping and its remit today includes safety, environmental concerns, legal matters, technical co-operation, maritime security and the efficiency of shipping.

India was re-elected as Member of International Maritime Council for two years (2018-19)

#### [Source](#)

5) Hong Kong Human Rights and Democracy Act of 2019, recently seen in news is a law of which country

- a) China
- b) Russia
- c) United States
- d) Japan

Solution: c)

Tensions have risen following the U.S.'s passing of the Hong Kong Human Rights and Democracy Act of 2019 and the proposed Uighur Act.

#### [Source](#)

6) Consider the following statements regarding East Asian Observatory (EAO).

1. East Asian Observatory is formed by the members of East Asia Summit for the purpose of pursuing joint projects in astronomy within the East Asian region.
2. India is not part of East Asian Observatory.

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)

India is in preliminary discussions to be a part of *the East Asian Observatories Consortium* of eight countries committed to build large telescopes and pool resources.

The EAO (East Asian Observatory) is formed by EACOA (East Asian Core Observatories Association) for the purpose of pursuing joint projects in astronomy within the East Asian region. In the era of very large scale astronomical instruments, East Asia will be competitive internationally by combining their funding resources, their technical expertise, and their manpower. The intention of EAO is to build and operate facilities, which will enhance and leverage existing and planned regional facilities. The intention of EAO is to raise funding and to build an observatory staff, separate from that of the EACOA institutions.

The EAO is chartered as a non-profit Hawaii corporation. Its first task is to assume the operation of the James Clerk Maxwell Submillimetre Telescope (JCMT) on the summit of Maunakea, Hawai'i.

[Source](#)

- 7) MERCOSUR is a trade bloc for
- a) North America
  - b) Africa
  - c) South America
  - d) European Union (EU)

Solution: c)

Most of the world is now divided into regional FTAs, including the North American Free Trade Agreement (NAFTA) for North America, the Southern Common Market (MERCOSUR for its Spanish initials) for South America, the EU, the Eurasian Economic Union (Russia and neighbours), the African Continental Free Trade Agreement (AfCFTA), the Gulf Cooperation Council (GCC) FTA in West Asia, and now the biggest of them all, RCEP.

[Source](#)

- 8) Yuelu Proclamation is related to
- a) Protection of linguistic diversity
  - b) Protection of indigenous people
  - c) Protection of intellectual property
  - d) Protection of LGBT community

Solution: a)

The Yuelu Proclamation, made by the UNESCO at Changsha, The People's Republic of China, in 2018, says: "The protection and promotion of linguistic diversity helps to improve social inclusion and partnerships, helps to reduce the gender and social inequality between different native speakers, guarantee the rights for native speakers of endangered, minority, indigenous languages, as well as non-official languages and dialects to receive education, enhance the social inclusion level and social decision-making ability by encouraging them to participate in a series of actions to promote cultural diversity, endangered language protection, and the protection of intangible cultural heritage..."

[Source](#)

- 9) Consider the following statements regarding World Trade Organization's Appellate Body.

1. World Trade Organization's Appellate Body, acts as a supreme court for international trade.

2. It is a standing body of seven persons that hears appeals from reports issued by panels in disputes brought by WTO Members.
3. Appellate Body can uphold, modify or reverse the legal findings and conclusions of a panel.
4. Sanctions cannot be imposed on a member in case of its failure to comply with the Appellate Body's rulings.

Which of the above statements is/are correct?

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

Solution: c)

Global trade disputes are complex and difficult to resolve. For proper enforcement of trade rules, a binding, two-stage dispute settlement system was established at the World Trade Organization in the 1990s. The Appellate Body is the scaffolding of the dispute settlement system, with seven standing members.

In the first stage for adjudicating trade disputes, a panel would decide cases brought before it by the members. Rulings issued by the panels can be appealed at the Appellate Body. As part of the second-stage of adjudication, the Appellate Body can uphold, modify or reverse the legal findings and conclusions of a panel. Therefore, the Appellate Body's decisions are final and adopted within 30 days by the dispute settlement body. Sanctions can be imposed on a member in case of its failure to comply with the Appellate Body's rulings.

#### [Source](#)

10) World Trade Organization's Appellate Body can deal with cases involving

1. Subsidies for renewable energy
2. Gambling
3. Countervailing and anti-dumping measures
4. Zeroing

Select the correct answer code:

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

Solution: d)

The panels and the Appellate Body have issued rulings in almost 200 disputes involving bananas, cotton, aircraft, beef, tuna, trade, 'shrimp-turtles', hot-rolled coils, subsidies for renewable energy, and gambling. Cases involving trade remedies such as countervailing and anti-dumping measures, and the use of a controversial practice called the zeroing methodology that inflated the anti-dumping duties, dominated the disputes among the WTO members.

#### [Source](#)

11) Consider the following statements regarding Coalition for Disaster Resilient Infrastructure (CDRI).

1. Coalition for Disaster Resilient Infrastructure is an initiative of United Nations Office for Disaster Risk Reduction (UNDRR).
2. It will support developed and developing nations in their efforts to build climate and disaster-resilient infrastructure.
3. CDRI will also focus on developing resilience in ecological infrastructure and social infrastructure.

Which of the above statements is/are correct?

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

d) 1, 2, 3

Solution: b)

Prime Minister Narendra Modi announced a global Coalition for Disaster Resilient Infrastructure (CDRI), at the UN Climate Action Summit 2019 held in New York City, USA, on September 23, 2019.

The partnership of national governments, UN agencies and programmes, multilateral development banks, financing mechanisms, private sector, and knowledge institutions will promote the resilience of new and existing infrastructure systems to climate and disaster risks, thereby ensuring sustainable development.

Developed through consultations with more than 35 countries, CDRI envisions enabling measurable reduction in infrastructure losses from disasters, including extreme climate events. CDRI thus aims to enable the achievement of objectives of expanding universal access to basic services and enabling prosperity as enshrined in the Sustainable Development Goals, while also working at the intersection of the Sendai Framework for Disaster Risk Reduction and the Paris Climate Agreement.

Established as a platform for generating and exchanging knowledge, CDRI will conduct country-specific and global activities. CDRI will provide member countries technical support and capacity development, research and knowledge management, and advocacy and partnerships to facilitate and encourage investment in disaster resilient infrastructure systems.

In its formative stage, CDRI will focus on developing resilience in ecological infrastructure, social infrastructure with a concerted emphasis on health and education, and economic infrastructure with special attention to transportation, telecommunications, energy, and water.

#### Source

12) Consider the following statements about International Covenant on Civil and Political Rights (ICCPR).

1. International Covenant on Civil and Political Rights (ICCPR) is a multilateral treaty adopted by the United Nations General Assembly.
2. The covenant commits its parties to respect the civil and political rights of individuals including rights to due process and a fair trial.
3. The ICCPR is part of Universal Declaration of Human Rights (UDHR).

Which of the above statements is/are correct?

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

Solution: d)

The International Covenant on Civil and Political Rights (ICCPR) is a multilateral treaty adopted by the United Nations General Assembly. The covenant commits its parties to respect the civil and political rights of individuals, including the right to life, freedom of religion, freedom of speech, freedom of assembly, electoral rights and rights to due process and a fair trial.

The ICCPR is part of the International Bill of Human Rights, along with the International Covenant on Economic, Social and Cultural Rights (ICESCR) and the Universal Declaration of Human Rights (UDHR).

The ICCPR is monitored by the United Nations Human Rights Committee.

13) Consider the following statements regarding Forum of Election Management Bodies of South Asia (FEMBoSA).

1. Forum of Election Management Bodies of South Asia (FEMBoSA) is a regional establishment to increase mutual cooperation in respect to the common interests of the member country's Election Management Bodies.
2. India is the Chair of FEMBoSA for 2020.

3. Pakistan is not the member of FEMBoSA.

Which of the above statements is/are correct?

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

Solution: c)

The Election Commission of India hosted the 10th annual meeting of the Forum of the Election Management Bodies of South Asia (FEMBoSA) at New Delhi on 24 January 2020 and took over as Chair of FEMBoSA for 2020.

FEMBoSA was established at the 3<sup>rd</sup> Conference of Heads of Election Management Bodies (EMBs) of SAARC Countries held at New Delhi from April 30 to May 2, 2012 through an unanimously adopted resolution on 1<sup>st</sup> May, 2012 to establish the Forum. The Conference also unanimously adopted the Charter of the Forum. The annual FEMBoSA meeting is held by rotation among the members.

Besides ECI, the other 7 members are EMBs from Afghanistan, Bangladesh, Bhutan, Maldives, Nepal, Pakistan and Sri Lanka. The FEMBoSA represents a very large part of the democratic world and is an active regional association of the election management bodies of South Asia. The objectives of the Forum are to promote contact among the EMBs of the SAARC countries; share experiences with a view to learning from each other and cooperate with one another in enhancing the capabilities of the EMBs towards conducting free and fair elections.

[Source](#)

14) Consider the following statements regarding 1972 World Heritage Convention.

1. The Convention links together the concepts of nature conservation and the preservation of cultural properties.
2. By signing the Convention, each country pledges to conserve not only the World Heritage sites situated on its territory, but also to protect its national heritage.
3. Emergency assistance may also be made available for urgent action to repair damage caused by human-made or natural disasters for the countries who have ratified the convention.

Which of the above statements is/are correct?

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

Solution: d)

The most significant feature of the 1972 World Heritage Convention is that it links together in a single document the concepts of nature conservation and the preservation of cultural properties. The Convention recognizes the way in which people interact with nature, and the fundamental need to preserve the balance between the two.

The Convention sets out the duties of States Parties in identifying potential sites and their role in protecting and preserving them. By signing the Convention, each country pledges to conserve not only the World Heritage sites situated on its territory, but also to protect its national heritage. The States Parties are encouraged to integrate the protection of the cultural and natural heritage into regional planning programmes, set up staff and services at their sites, undertake scientific and technical conservation research and adopt measures which give this heritage a function in the day-to-day life of the community.

It explains how the World Heritage Fund is to be used and managed and under what conditions international financial assistance may be provided.

The Convention stipulates the obligation of States Parties to report regularly to the World Heritage Committee on the state of conservation of their World Heritage properties. These reports are crucial to the work of the Committee as they enable it to assess the conditions of the sites, decide on specific programme needs and resolve recurrent problems.

A key benefit of ratification, particularly for developing countries, is access to the World Heritage Fund. Annually, about US\$4 million is made available to assist States Parties in identifying, preserving and promoting World Heritage sites. Emergency assistance may also be made available for urgent action to repair damage caused by human-made or natural disasters. In the case of sites included on the List of World Heritage in Danger, the attention and the funds of both the national and the international community are focused on the conservation needs of these particularly threatened sites.

[Source](#)

15) Consider the following statements.

1. The office of the United States Trade Representatives (USTR) has retained India in the list of developing countries.
2. Countries that are listed as least-developed under the US countervailing duty (CVD) laws are eligible for preferential treatment when it comes to CVD investigations.

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 office of the United States Trade Representatives (USTR) has updated its list of developing and least-developed countries, removing India from the list of countries that are designated as developing.

The USTR has also updated its list of countries that are least-developed under the US countervailing duty (CVD) laws. Countries under this list are eligible for preferential treatment when it comes to CVD investigations. Other countries that were removed from the list include Thailand, Vietnam, Brazil, Indonesia and Malaysia.

Until February 10, 2020, India was on the USTR's list of developing countries, making it eligible for preferential treatment against CVD investigations and de minimis thresholds. It will no longer get this benefit.

[Source](#)

16) Public health emergencies of international concern (PHEIC) implies a situation that is

1. Serious, sudden, unusual or unexpected.
2. Carries implications for public health beyond the affected State's national border.
3. May require immediate international action.

Which of the above statements is/are correct?

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

Solution: d)

The International Health Regulations (2005), or IHR (2005), represents a binding international legal agreement involving 196 countries across the globe, including all the Member States of WHO. Their aim is to help the international community prevent and respond to acute public health risks that have the potential to cross borders and threaten people worldwide.

A PHEIC is defined in the IHR (2005) as, “an extraordinary event which is determined to constitute a public health risk to other States through the international spread of disease and to potentially require a coordinated international response”. This definition implies a situation that is:

- serious, sudden, unusual or unexpected;
- carries implications for public health beyond the affected State’s national border; and
- may require immediate international action.

#### [Source](#)

17) Consider the following statements regarding the Judges of International Court of Justice (ICJ).

1. Like other organs of international organizations, the Court is composed of representatives of governments.

2. No Member of the Court can be dismissed unless, in the unanimous opinion of the other Members, he/she no longer fulfils the required conditions.

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)

Once elected, a Member of the Court is a delegate neither of the government of his own country nor of that of any other State. Unlike most other organs of international organizations, the Court is not composed of representatives of governments. Members of the Court are independent judges whose first task, before taking up their duties, is to make a solemn declaration in open court that they will exercise their powers impartially and conscientiously.

In order to guarantee his or her independence, no Member of the Court can be dismissed unless, in the unanimous opinion of the other Members, he/she no longer fulfils the required conditions. This has in fact never happened.

18) Mangdechhu hydroelectric power plant, funded by India is developed in which country?

- a) Bangladesh
- b) Afghanistan
- c) Nepal
- d) Bhutan

Solution: d)

Mangdechhu hydroelectric project is a 720 MW run-of-river power plant on the Mangdechhu River in Trongsa Dzongkhag District of central Bhutan. It is being developed by Mangdechhu Hydroelectric Project Authority (MHPA) constituted jointly by Governments of India and Bhutan.

Initiated in 2010, it is one of the major projects under Bhutan’s initiative to generate 10,000 MW hydropower by 2020 with Indian support.

#### [Source](#)

19) Idlib, recently in news lies between

- a) Aleppo and Damascus
- b) Turkey and Syria
- c) Syria and Iraq
- d) Damascus and Amman

Solution: a)

The nine-year-old war in Syria is currently raging in the northwestern province of Idlib, with rapidly escalating tensions between government forces of President Bashar al-Assad and the Turkish military.

Assad has been pushing for weeks to recapture Idlib, which, along with parts of neighbouring Hama, Latakia and Aleppo, are the last remaining strongholds of the rebel opposition and other groups that have been attempting to overthrow Assad since 2011.

Idlib skirts the two national highways and lies between Aleppo in the north and Damascus in the south. It's proximity to the Turkish border makes Idlib strategically important to the Syrian government.

## Idlib province



**■** Turkish-backed Syrian rebels and Turkish military  
**■** Kurdish forces

**■** Syrian government  
**■** Jihadist forces  
**■** Syrian rebels



[Source](#)

20) There are over 1.36 crore Indian nationals living abroad, according to data tabled by the Ministry of External Affairs in Lok Sabha. Arrange the following countries in descending order in which number of Indians are living abroad.

1. United States
2. Saudi Arabia

3. United Arab Emirates

4. Singapore

Select the correct answer code:

a) 1-2-3-4

b) 3-2-1-4

c) 3-1-2-4

d) 1-3-2-4

Solution: b)

There are over 1.36 crore Indian nationals living abroad, according to data tabled by the Ministry of External Affairs in Lok Sabha. Citing RBI data, the ministry said that during 2018-2019, \$76.4 billion was received as remittances from Indians abroad. During 2019-2020 (April-September), \$41.9 billion was received. The highest number of Indians abroad are living in the United Arab Emirates, where the 34,20,000 Indians comprise about one-fourth of all Indians abroad. The UAE is followed by Saudi Arabia (25,94,947), the US (12,80,000), Kuwait (10,29,861), Oman (7,79,351), Qatar (7,56,062), Nepal (5,00,000), UK (3,51,000), Singapore (3,50,000) and Bahrain (3,23,292).

### Source

21) Consider the following statements regarding Solar Risk Mitigation Initiative (SRMI).

1. Solar Risk Mitigation Initiative (SRMI) is developed by *International Energy Agency* to address the challenge of climate financing.

2. SRMI aims to support countries in developing sustainable solar programs that will attract private investments and so reduce reliance on public finances.

3. It provides technical assistance to help countries develop evidence-based solar targets and implement a sustainable solar program.

Which of the above statements is/are correct?

a) 1, 2

b) 2, 3

c) 1, 3

d) 1, 2, 3

Solution: b)

The World Bank– Energy Sector Management Assistance Program (WB-ESMAP), in partnership with, Agence Française de Développement (AFD), International Renewable Energy Agency (IRENA) and International Solar Alliance (ISA) developed the Solar Risk Mitigation Initiative (SRMI or “the Initiative”) to address these challenges. This unique approach offers development and climate financing for: (i) technical assistance to help countries develop evidence-based solar targets, implement a sustainable solar program, and maintain robust procurement processes with transaction advisors; (ii) critical public investments to enable integration of variable renewable energy (VRE), finance solar park infrastructure, and increase access to electricity ; and (iii) risk mitigation instruments to cover residual risks perceived by private investors.

SRMI aims to support countries in developing sustainable solar programs that will attract private investments and so reduce reliance on public finances. It has three components to mitigate the risk of solar deployment:

**Sustainable Solar Targets:** supporting the development of sustainable renewable roadmaps with medium-term targets based on sound planning and resource assessments, and providing concessional climate finance blended with development finance and technical support to ensure that countries have the right enabling environment to reduce country risk;

**Transparent Procurement:** supporting the selection of private sector developers and investors in a competitive and transparent manner to address country and project risk; and

**Viable Risk Mitigation Coverage:** developing viable risk mitigation coverage to cover residual project risks targeting solar (grid and off-grid) and storage deployment financed and operated by private investors.

[Source](#)



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## 6. Polity

1) Consider the following statements regarding Article 131.

1. For a dispute to qualify as a dispute under Article 131, it has to be between states and the Centre, and must involve a question of law or fact on which the existence of a legal right of the state or the Centre depends.
2. Article 131 can be used to settle political differences between state and central 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)

Kerala became the first state to challenge the Citizenship (Amendment) Act (CAA) before the Supreme Court. The Kerala government has moved the apex court under Article 131 of the Constitution, the provision under which the Supreme Court has original jurisdiction to deal with any dispute between the Centre and a state; the Centre and a state on the one side and another state on the other side; and two or more states.

The Chhattisgarh government filed a suit in the Supreme Court under Article 131, challenging the National Investigation Agency (NIA) Act on the ground that it encroaches upon the state's powers to maintain law and order.

For a dispute to qualify as a dispute under Article 131, it has to be between states and the Centre, and must involve a question of law or fact on which the existence of a legal right of the state or the Centre depends. In a 1978 judgment, *State of Karnataka v Union of India*, Justice P N Bhagwati had said that for the Supreme Court to accept a suit under Article 131, the state need not show that its legal right is violated, but only that the dispute involves a legal question.

Article 131 cannot be used to settle political differences between state and central governments headed by different parties.

[Source](#)

2) Consider the following statements regarding Star campaigner.

1. Only a recognised political party can have a Star campaigner.
2. The list of star campaigners has to be communicated to the Chief Electoral Officer and Election Commission within a week from the date of notification of an election.
3. Only President can remove the leaders from the political party's list of star campaigners.

Which of the above statements is/are correct?

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

Solution: b)

The Election Commission removed BJP leaders Anurag Thakur and Parvesh Sahib Singh from the party's list of star campaigners.

### Who is a star campaigner?

A recognised political party can have 40 star campaigners and an unrecognised (but registered) political party can have 20. The list of star campaigners has to be communicated to the Chief Electoral Officer and Election Commission within a week from the date of notification of an election.

The expenditure incurred on campaigning by such notified star campaigners is exempt from being added to the election expenditure of a candidate. However, this only applies when a star campaigner limits herself to a general campaign for the political party she represents.

[Source](#)

3) Consider the following statements.

1. Article 341 of the Constitution provides certain privileges and concessions to the members of Scheduled Castes.
  2. President alone is vested with the power to include or exclude any entry in the **Scheduled Castes (SC)** list.
  3. There is provision for the reservation of Scheduled Castes both in the Lok Sabha and Rajya Sabha.
- Which of the above statements is/are incorrect?

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

Solution: c)

Article 341 of the Constitution provides certain privileges and concessions to the members of Scheduled Castes. Under the provision of Article 341, first list of SCs in relation to a states/UT is to be issued by a notified Order of the President after consulting concerned state Government.

But the clause (2) of Article 341 envisages that, any subsequent inclusion in or exclusion from the list of Scheduled Castes can be effected through an Act of Parliament.

Parliament alone is vested with the power to include or exclude any entry in the SC list under Article 341 of the Constitution.

Statement 3: Reservation is there only in the Lok Sabha.

4) Consider the following statements regarding North Eastern Council.

1. NEC established by an Act of Parliament is the nodal agency for the economic and social development of the North Eastern Region.
2. Minister of Development of NER is the ex-officio Chairman of North Eastern Council.
3. Initially Sikkim was not the part of North Eastern Council and was added to the council in the year 2002.

Which of the above statements is/are correct?

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

Solution: b)

North Eastern Council (NEC) was constituted as a statutory advisory body under the NEC Act 1971 and came into being on the 7th November, 1972 at Shillong. The eight States of Northeast India viz. Arunachal Pradesh, Assam, Manipur, Meghalaya, Mizoram, Nagaland, Tripura and Sikkim, are members of the council, with their respective Chief Ministers and Governors representing them.

Sikkim was added to the council in the year 2002.

In June 2018, the chairmanship of NEC was transferred by Union Cabinet to Home Minister from Minister of Development of NER.

[Source](#)

5) Consider the following statements regarding the role and functions of a Speaker of the Lok Sabha.

1. Speaker is a quasi-judicial body
2. Ultimate interpreter and arbiter of those provisions which relate to the functioning of the House.
3. Sole representative of the House in the international arena.

Which of the above statements is/are correct?

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

Solution: d)

The nature of duties of the Speaker, technically as an “arbiter” or a “quasi-judicial body” should not be limited exclusively to matters under the Tenth Schedule; rather, it extends to a range of its functions. While facilitating the business of the House and to maintain decorum in the House, the Speaker has ‘extensive functions to perform in matters regulatory, administrative and judicial, falling under her domain. She enjoys vast authority under the Constitution and the Rules, as well as inherently’.

She is the ‘ultimate interpreter and arbiter of those provisions which relate to the functioning of the House. Her decisions are final and binding and ordinarily cannot be easily challenged. She decides the duration of debates, can discipline members and even override decisions by committees. She represents the collective voice of the House and is the sole representative of the House in the international arena’.

[Source](#)

6) Consider the following statements.

1. Article 29 of the Constitution provides that a section of citizens having a distinct language, script or culture have the right to conserve the same.
2. Tulu is a Dravidian language whose speakers are concentrated in few districts of Karnataka and Kerala.
3. Manipuri and Sanskrit languages are protected in Schedule VIII of the Constitution of India.

Which of the above statements is/are correct?

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

Solution: d)

Article 29 of the Constitution provides that a section of citizens having a distinct language, script or culture have the right to conserve the same.

Tulu is a Dravidian language whose speakers are concentrated in two coastal districts of Karnataka and in Kasaragod district of Kerala.

The Tulu-speaking people are larger in number than speakers of Manipuri and Sanskrit, which have the Eighth Schedule status.

[Source](#)

7) Consider the following statements.

1. Article 256 of the Constitution obligates the State government to ensure implementation of the laws made by Parliament.
2. The refusal to enforce the laws made by Parliament even after the Centre issues directions would empower the President to impose President’s Rule in those States under Articles 356 and 365.
3. *S.R. Bommai v. Union of India* is a significant case on Indian federalism.

Which of the above statements is/are correct?

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

Solution: d)

Article 256 of the Constitution obligates the State government to ensure implementation of the laws made by Parliament. If the State government fails to do so, the Government of India is empowered to give “such directions to a State as may appear... to be necessary”. The refusal to enforce the law even after the Centre issues directions would empower the President to impose President’s Rule in those States under Articles 356 and 365. The Supreme Court of India has also confirmed this reading of the law in *S.R. Bommai v. Union of India* — arguably the most significant case on Indian federalism.

#### [Source](#)

8) Consider the following statements regarding Anti-Defection Law

1. The Tenth Schedule was inserted in The Constitution (Forty-second amendment) Act, 1976.
2. A legislator defying the party whip on any issue can lose his membership of the House.
3. The law applies to both Parliament and state assemblies.

Which of the above statements is/are correct?

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

Solution: c)

The Tenth Schedule was inserted in the Constitution in 1985. It lays down the process by which legislators may be disqualified on grounds of defection by the Presiding Officer of a legislature based on a petition by any other member of the House. A legislator is deemed to have defected if he either *voluntarily gives up the membership of his party or disobeys the directives of the party leadership on a vote*. This implies that a legislator defying (abstaining or voting against) the party whip on any issue can lose his membership of the House. The law applies to both Parliament and state assemblies.

#### [Source](#)

9) Consider the following statements regarding Anti-Defection Law.

1. The law allows a party to merge with or into another party provided that at least one-third of its legislators are in favour of the merger.
2. The law does not specify a time-period for the Presiding Officer to decide on a disqualification plea.
3. Courts can intervene only after the Presiding Officer has decided on the matter of disqualification.

Which of the above statements is/are correct?

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

Solution: c)

Legislators may change their party without the risk of disqualification in certain circumstances. The law allows a party to merge with or into another party provided that at least two-thirds of its legislators are in favour of the merger. In such a scenario, neither the members who decide to merge, nor the ones who stay with the original party will face disqualification.

The law initially stated that the decision of the Presiding Officer is not subject to judicial review. This condition was struck down by the Supreme Court in 1992, thereby allowing appeals against the Presiding Officer's decision in the High Court and Supreme Court. However, it held that there may not be any judicial intervention until the Presiding Officer gives his order.

The law does not specify a time-period for the Presiding Officer to decide on a disqualification plea. Given that courts can intervene only after the Presiding Officer has decided on the matter, the petitioner seeking disqualification has no option but to wait for this decision to be made.

### Source

10) Consider the following statements regarding *Privilege motion*.

1. Parliamentary privileges are certain rights and immunities enjoyed by members of Parliament, individually and collectively, so that they can effectively discharge their functions.

2. A notice is moved in the form of a motion by *any member of either House against those being held guilty of breach of privilege*.

3. The leader of the house is *the first level of scrutiny of a privilege motion*.

Which of the above statements is/are correct?

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

Solution: a)

Parliamentary privileges are certain rights and immunities enjoyed by members of Parliament, individually and collectively, so that they can "effectively discharge their functions". When any of these rights and immunities are disregarded, the offence is called *a breach of privilege* and is punishable under law of Parliament.

A notice is moved in the form of a motion by *any member of either House against those being held guilty of breach of privilege*. Each House also claims the right to punish as contempt actions which, while not breach of any specific privilege, are offences against its authority and dignity.

The Speaker/RS chairperson is *the first level of scrutiny of a privilege motion*. *The Speaker/Chair can decide on the privilege motion himself or herself or refer it to the privileges committee of Parliament*.

11) Consider the following statements.

1. Supreme Court has declared that there is no fundamental right of a member of the scheduled caste (SC) or scheduled tribe (ST) community to claim reservation benefits while being promoted in government service.

2. According to Article 16(4A) of the Constitution, any reservation of seats for SC/ST persons in promotion will not violate the fundamental tenet of equality.

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 Supreme Court judgment of February 7, declaring that there is no fundamental right of a member of the scheduled caste (SC) or scheduled tribe (ST) community to claim reservation benefits while being promoted in government service.

The apex court's judgment is very simply a reiteration of the provision of the Constitution. According to Article 16(4A) of the Constitution, any reservation of seats for SC/ST persons in promotion will not violate the fundamental tenet of equality.

This provision quite clearly does not actively require state governments or the central government to provide reservation.

Instead, it declares that should a government choose to reserve seats in promotion, such reservation will not be a violation of equality. As a result of the immunity provided, no one, particularly upper castes, can claim that preferential treatment for SC/ST persons treats people unequally, and is violative of the Constitution.

#### [Source](#)

12) Consider the following statements regarding Uniform Civil Code.

1. A Uniform Civil Code is one that would provide for one law for the entire country, applicable to all religious communities in their personal matters such as marriage, divorce, inheritance and adoption.

2. Article 44 of the Constitution lays down that it shall be the obligation of the state to secure a Uniform Civil Code for the citizens throughout the territory of India.

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)

A Uniform Civil Code is one that would provide for one law for the entire country, applicable to all religious communities in their personal matters such as marriage, divorce, inheritance, adoption etc. Article 44 of the Constitution lays down that the state shall endeavour to secure a Uniform Civil Code for the citizens throughout the territory of India.

Article 44 is one of the directive principles. These, as defined in Article 37, are not justiciable (not enforceable by any court) but the principles laid down therein are fundamental in governance. Fundamental rights are enforceable in a court of law. While Article 44 uses the words "state shall endeavour", other Articles in the 'Directive Principles' chapter use words such as "in particular strive"; "shall in particular direct its policy"; "shall be obligation of the state" etc. Article 43 mentions "state shall endeavour by suitable legislation" while the phrase "by suitable legislation" is absent in Article 44. All this implies that the duty of the state is greater in other directive principles than in Article 44.

All Hindus of the country are not governed by one law, nor are all Muslims or all Christians. Not only British legal traditions, even those of the Portuguese and the French remain operative in some parts.

In the Northeast, there are more than 200 tribes with their own varied customary laws. The Constitution itself protects local customs in Nagaland. Similar protections are enjoyed by Meghalaya and Mizoram.

#### [Source](#)

13) Consider the following statements regarding mandamus.

1. In India, the Supreme Court and High courts can issue prerogative writs under Article 32 of the Constitution.

2. The writ of mandamus cannot be issued unless the legal duty is of public nature, and to whose performance the applicant of the writ has a legal right.

3. Mandamus cannot be granted against the President or Governor of a State.

Which of the above statements is/are correct?

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

Solution: c)

The Supreme Court has ruled that reservation in the matter of promotions in public posts is not a fundamental right, and a state cannot be compelled to offer the quota if it chooses not to. "There is no fundamental right which inheres in an individual to claim reservation in promotions. No mandamus can be issued by the court directing state governments to provide reservations,"

Mandamus is among the "prerogative writs" in English common law — meaning the extraordinary writs or orders granted by the Sovereign when ordinary legal remedies are inadequate. These are habeas corpus, mandamus, prohibition, certiorari, and quo warranto.

In India, the Supreme Court can issue prerogative writs under Article 32 of the Constitution, and the High Courts under Article 226.

Mandamus literally means 'we command'. When issued to a person or body, the writ of mandamus demands some activity on their part. It orders the person or body to perform a public or quasi-public duty, which they have refused to perform, and where no other adequate legal remedy exists to enforce the performance of that duty.

The writ cannot be issued unless the legal duty is of public nature, and to whose performance the applicant of the writ has a legal right.

The remedy is of a discretionary nature — a court can refuse to grant it when an alternative remedy exists. However, for enforcing fundamental rights, the alternative remedy argument does not hold as much weight, since it is the duty of the Supreme Court and the High Courts to enforce fundamental rights.

When a public officer or government does an act that violates the fundamental right of a person, the court would issue a writ of mandamus against such authorities so that the person's rights are not infringed.

The writ can also be issued against inferior courts or other judicial bodies when they have refused to exercise their jurisdiction and perform their duty.

Under Article 361, mandamus cannot be granted against the President or Governor of a State, "for the exercise and performance of the powers and duties of his office or for any act done or purporting to be done by him in the exercise and performance of those powers and duties".

The writ also cannot be issued against a private individual or body, except where the State is in collusion with the private party for contravening a provision of the Constitution or a statute.

## 7. History, Art and Culture

1) Consider the following statements regarding Vakataka dynasty.

1. Vakataka dynasty ruled parts of Central and South India between the third and fifth centuries.
2. Prabhavatigupta was the chief queen of Vakataka dynasty.
3. Vakataka people traded with Iran and beyond through the Mediterranean Sea.

Which of the above statements is/are correct?

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

Solution: d)

Recent archaeological excavations at Nagardhan in Ramtek taluka, near Nagpur, have provided concrete evidence on the life, religious affiliations and trade practices of the Vakataka dynasty that ruled parts of Central and South India between the third and fifth centuries.

It is the first time clay sealings have been excavated from Nagardhan. The oval-shaped sealing belongs to the period when Prabhavatigupta was the queen of the Vakataka dynasty.

The copperplate issued by Queen Prabhavatigupta starts with a genealogy of the Guptas, mentioning the Queen's grandfather Samudragupta and her father Chandragupta II. These are strong indicators of Vaishnava signatures on the royal seals of the Vakatakas, reiterate that Queen Prabhavatigupta was indeed a powerful woman ruler.

Since the Vakataka people traded with Iran and beyond through the Mediterranean Sea, scholars suggest that these sealings could have been used as an official royal permission issued from the capital city.

### Source

2) Consider the following statements.

1. He was sentenced to death for the Kakori conspiracy of 1925.
2. He was associated with Hindustan Socialist Republican Association (HSRA).
3. He was disillusioned with the Gandhiji's withdrawal of non-cooperation movement.

The above statements refer to

- a) Potti Sreeramulu
- b) Ashfaqullah Khan
- c) Khudiram Bose
- d) Bal Gangadhar Tilak

Solution: b)

Ashfaqullah Khan was born on October 22, 1900, in Shahjahanpur, Uttar Pradesh. He grew up at a time when Mahatma Gandhi had launched the non-cooperation movement and urged Indians not to pay taxes to the government or co-operate with the British.

Within about 1.5 years of the movement's launch, in February 1922, the Chauri Chaura incident took place in Gorakhpur — a large number of non-cooperation protestors clashed with the police and set the police station on fire, killing roughly 22 policemen. Opposed to violence, Gandhi called off the movement.

According to a press release by the Press Information Bureau (PIB), the youth of the country were greatly disappointed and disillusioned with this. Khan was one among these youths. Some of them including Ashfaqulla Khan became extremists and turned to organisations like Hindustan Socialist Republican Association.

Khan along with Ram Prasad Bismil, was sentenced to death for the Kakori train robbery, commonly referred to as the Kakori conspiracy of 1925.

#### Source

3) Consider the following statements.

1. He was given the title *Lion of Punjab*.
2. He was known for his just and secular rule.
3. He turned Harimandir Sahib at Amritsar into the Golden Temple by covering it with gold.

The above statements are related to which personality?

- a) Banda Singh Bahadur
- b) Amarinder Singh
- c) Maharaja Kharak Singh
- d) Ranjit Singh

Solution: d)

A statue of Ranjit Singh, who ruled Punjab for almost four decades (1801-39), was recently inaugurated in Lahore.

He was given the title Lion of Punjab (Sher-e-Punjab) because he stemmed the tide of Afghan invaders in Lahore, which remained his capital until his death.

During his regime, Punjab was a land of six rivers, the sixth being the Indus.

The maharaja was known for his just and secular rule; both Hindus and Muslims were given powerful positions in his darbar.

He turned Harimandir Sahib at Amritsar into the Golden Temple by covering it with gold.

4) Consider the following statements.

1. She is regarded as the first female teacher of India.
2. She along with her husband recognised that education was one of the central planks through which women and the depressed classes could become empowered.
3. She was associated with Satyashodhak Samaj.

The above statements refer to

- a) Savitribai Phule
- b) Kadambini Ganguly
- c) Sarojini Naidu
- d) Usha Mehta

Solution: a)

Savitribai Phule, the social reformer who is considered to be one of India's first modern feminists, was born on January 3, 1831. Among her accomplishments, she is especially remembered for being India's first female teacher who worked for the upliftment of women and untouchables in the field of education and literacy.

Phule was born in Naigaon, Maharashtra in 1831 and married activist and social-reformer Jyotirao Phule when she was nine years old. After marriage, with her husband's support, Phule learned to read and write and both of them eventually went on to found India's first school for girls called Bhide Wada in Pune in 1948. Before this, she started a school with Jyotirao's cousin Saganbai in Maharwada in 1847.

Essentially, both Jyotirao and Savitribai Phule recognised that education was one of the central planks through which women and the depressed classes could become empowered and hope to stand on an equal footing with the rest of the society.

The Phules also started the Literacy Mission in India between 1854-55. The Phules started the Satyashodhak Samaj (Society for Truth-Seeking), through which they wanted to initiate the practice of Satyashodhak marriage, in which no dowry was taken.

### [Source](#)

5) Consider the following statements.

1. Recently Archaeological Survey of India discovered the earliest epigraphic evidence so far for the Saptamatrika cult which is also the earliest Sanskrit inscription to have been discovered in South India.
2. There are references of Saptamatrika worship in the early Chalukyas and Eastern Chalukya copper plates.

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 significant find, the Epigraphy Branch of the Archaeological Survey of India has discovered the earliest epigraphic evidence so far for the Saptamatrika cult. It is also the earliest Sanskrit inscription to have been discovered in South India as on date.

Saptamatrikas are a group of seven female deities worshipped in Hinduism as personifying the energy of their respective consorts. The inscription is in Sanskrit and in Brahmi characters and was issued by Satavahana king Vijaya in 207 A.D.

There are references of Saptamatrika worship in the early Kadamba copper plates and the early Chalukyas and Eastern Chalukya copper plates. But the new discovery predates them by almost 200 years.

### [Source](#)

6) Consider the following statements regarding Adichanallur.

1. Adichanallur is an archaeological site in Telangana, that has been the site of a number of very important archaeological finds.
2. It is located close to Tamirabarani waterway.

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)

Recently Finance Minister announced an onsite museum at Adichanallur to highlight the archaeological findings belonging to a civilised society that lived close to the Tamirabarani waterway between 905 BCE and 696 BCE.

Adichanallur is an archaeological site in Thoothukudi district in Tamil Nadu, India that has been the site of a number of very important archaeological finds. Korkai, the capital of the Early Pandyan Kingdom, is located about 15 km from Adichanallur.

### [Source](#)

7) Consider the following statements regarding 1946 Royal Indian Navy revolt.

1. The immediate trigger was the demand for better food and working conditions for Indian sailors of the Royal Indian Navy.
2. The revolt was confined to Bombay region.
3. The Indian National Congress and the Muslim League condemned the strikers.

Which of the above statements is/are correct?

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

Solution: c)

The Royal Indian Navy revolt (also called the Royal Indian Navy mutiny or Bombay mutiny) encompasses a total strike and subsequent revolt by Indian sailors of the Royal Indian Navy on board ship and shore establishments at Bombay harbour on 18 February 1946.

While the immediate trigger was the demand for better food and working conditions, the agitation soon turned into a wider demand for independence from British rule.

From the initial flashpoint in Bombay, the revolt spread and found support throughout British India, from Karachi to Calcutta. The mutiny was repressed with force by British troops and Royal Navy warships. Only the Communist Party supported the strikers; the Indian National Congress and the Muslim League condemned it.

#### Source

8) Consider the following statements regarding Mughal prince Dara Shikoh

1. He is the son of Shah Jahan and was killed after losing the war of succession against Aurangzeb.
2. He is described as a “liberal Muslim” who tried to find commonalities between Hindu and Islamic traditions.
3. He translated into Persian the Bhagavad Gita as well as Upanishads.

Which of the above statements is/are correct?

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

Solution: d)

The Ministry of Culture recently set up a seven-member panel of the Archaeological Survey of India (ASI) to locate the grave of the Mughal prince Dara Shikoh (1615-59).

The eldest son of Shah Jahan, Dara Shikoh was killed after losing the war of succession against his brother Aurangzeb. Dara Shikoh is described as a “liberal Muslim” who tried to find commonalities between Hindu and Islamic traditions. He translated into Persian the Bhagavad Gita as well as 52 Upanishads.

#### Source

9) Consider the following statements.

1. *President of the Servants of the People Society.*
2. *Participated in the non-cooperation movement and the Salt Satyagraha.*
3. *Promoted the White Revolution*
4. *Signed Tashkent Declaration with Pakistan*

The above statements are related to

- a) Indira Gandhi
- b) Charan Singh
- c) Jawaharlal Nehru
- d) Lal Bahadur Shastri

Solution: d)

Lal Bahadur Shastri became a life member of the *Servants of the People Society (Lok Sevak Mandal)*, founded by Lala Lajpat Rai. There he started to work for the upliftment of backward classes, and later *he became the President of that Society*.

He participated in the *non-cooperation movement and the Salt Satyagraha*.

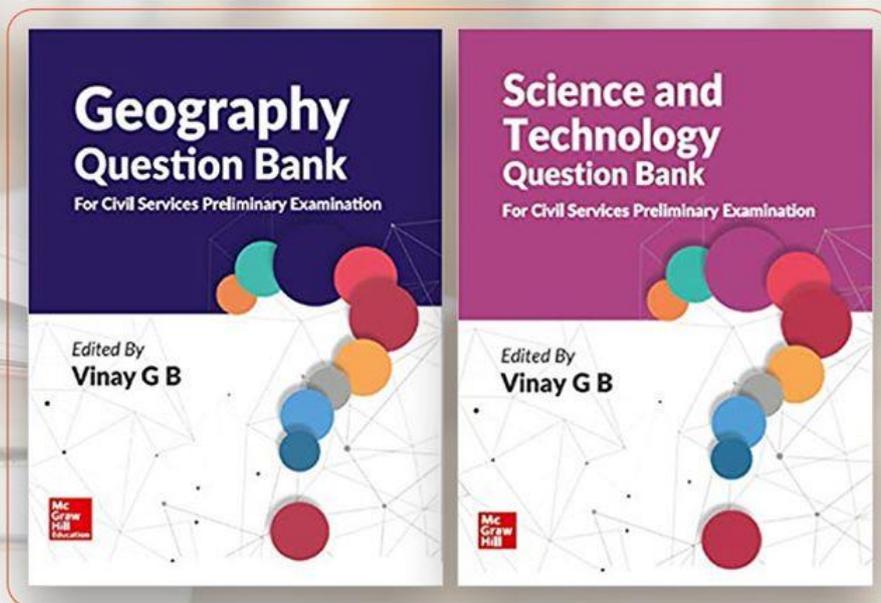
He promoted the *White Revolution*, a national campaign to increase milk production. He also promoted the *Green Revolution*, to increase the food production in India.

In 1964, he signed an agreement with the Sri Lankan Prime Minister Sirimavo Bandaranaike, in concern with the status of Indian Tamils in Ceylon. This agreement is known as *Sirimavo-Shastri Pact*.

He signed *Tashkent Declaration* on 10 January, 1966 with the Pakistan President, Muhammad Ayub Khan to end the 1965 war.

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## 8. Defence and Security

1) Recently Indian Air Force's An-32 aircraft used a 10% blend of Indian biojet fuel. Consider the following statements regarding Biojet fuel.

1. Biojet fuel is prepared from non-edible tree borne oil, and is procured from various tribal areas of India.

2. This fuel is made from Jatropha oil.

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 his monthly Mann ki Baat radio address, Prime Minister Narendra Modi on Sunday (February 23) hailed the use of biofuel in an Indian Air Force transport aircraft.

IAF's An-32 aircraft using a 10% blend of Indian biojet fuel took off from Leh's Kushok Bakula Rimpoche airport on January 31. This was the first time that this mix was used in both engines of an aircraft.

Biojet fuel, is prepared from "non-edible tree borne oil", and is procured from various tribal areas of India.

This fuel is made from Jatropha oil sourced from Chattisgarh Biodiesel Development Authority (CBDA) and then processed at CSIR-IIP, Dehradun.

[Source](#)

## 9. Reports and Indices

- 1) Composite Water Management Index (CWMI) is released by
- a) Niti Aayog
  - b) Central Water Commission
  - c) Jal Shakti Ministry
  - d) Both a) and c)

Solution: a)

In 2020, according to the Niti Aayog, 21 Indian cities, including Delhi, Chennai and Bengaluru, will run out of groundwater. The Aayog's "Composite Water Management Index" (CWMI), notes that "Seventy per cent of our water resources are contaminated".

[Source](#)



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## 10. Maps / Places

1) Kyaukpyu town, recently seen in news is located in

- a) China
- b) Nepal
- c) Myanmar
- d) Malaysia

Solution: c)

Among the major infrastructure projects under consideration are the development of a special economic zone and a deep-sea port at Kyaukpyu, the construction of a railway line from the China border to Mandalay in central Myanmar.

The railway will eventually branch out (like the economic corridor) to Kyaukpyu on the western seaboard of Myanmar and Yangon in the south where the Irrawaddy river flows into the Bay of Bengal.

[Source](#)

2) Consider the following statements regarding Madagascar.

- 1. Madagascar is the world's second largest island country, located in Indian Ocean.
- 2. Tropic of Capricorn passes through Madagascar.
- 3. Mozambique Channel is located between Madagascar and Mauritius.

Which of the above statements is/are correct?

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

Solution: a)

Mozambique Channel is an arm of the Indian Ocean located between the Southeast African countries of Madagascar and Mozambique.

3) Lampedusa Island, sometime seen in news is located in

- a) Mediterranean Sea
- b) Red Sea
- c) Black Sea
- d) Caspian Sea

Solution: a)

Lampedusa is the largest island of the Italian Pelagie Islands in the Mediterranean Sea.

[Source](#)

4) Colorado River, flows mainly in

- a) Russia
- b) United States
- c) Canada
- d) China

Solution: b)

The Colorado River is one of the principal rivers (along with the Rio Grande) in the Southwestern United States and northern Mexico.

Source

5) The countries bordering Turkey are

1. Greece
2. Lebanon
3. Georgia
4. Iran
5. Syria

Select the correct answer code:

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

Solution: b)

Turkey is a transcontinental country located mainly on the Anatolian peninsula in Western Asia, with a smaller portion on the Balkan peninsula in Southeastern Europe.

Turkey is bordered by Greece and Bulgaria to its northwest, the Black Sea to its north, Georgia to its northeast, Armenia, the Azerbaijani exclave of Nakhchivan and Iran to its east, Iraq and Syria to its southeast, the Mediterranean Sea to its south, and the Aegean Sea to its west.



## 11. Miscellaneous

1) Consider the following statements regarding Bru or Reang community.

1. The Bru or Reang are a community indigenous to Northeast India, living in Tripura, Mizoram, and Assam.

2. In Tripura, they are recognised as a Particularly Vulnerable Tribal Group (PVTG).

3. They speak both Kokborok and Bangla languages.

Which of the above statements is/are correct?

a) 1, 2

b) 1, 3

c) 2, 3

d) 1, 2, 3

Solution: d)

Twenty-three years after ethnic clashes in Mizoram forced 37,000 people of the Bru (or Reang) community to flee their homes to neighbouring Tripura, an agreement has been signed to allow them to remain permanently in the latter state.

The agreement among the Bru leaders and the governments of India, Tripura, and Mizoram, gives the Bru the choice of living in either state.

The Bru or Reang are a community indigenous to Northeast India, living mostly in Tripura, Mizoram, and Assam. In Tripura, they are recognised as a Particularly Vulnerable Tribal Group (PVTG).

Apart from their own Kaubru tongue, the Bru speak both Kokborok and Bangla, the two most widely spoken languages of the tribal and non-tribal communities of Tripura, and have an easy connection with the state.

2) Consider the following statements.

1. The right to carry on trade or business using the Internet are constitutionally protected.

2. In India, Information Technology Act, 2000 is the only law that deal with suspension of Internet services.

3. Section 144 CrPC gives power to a District Magistrate to block the internet access.

Which of the above statements is/are correct?

a) 1, 2

b) 1, 3

c) 2, 3

d) 1, 2, 3

Solution: b)

The Supreme Court declared that the fundamental right to freedom of speech and expression and the right to carry on trade or business using the Internet are constitutionally protected.

The Information Technology Act, 2000, the Criminal Procedure Code (CrPC), 1973 and the Telegraph Act, 1885 are the three laws that deal with suspension of Internet services.

*What is Section 144?*

It gives power to a District Magistrate, a sub-divisional Magistrate or any other Executive Magistrate on behalf of the State Government to issue an order to an individual or the general public in a particular place or area to "abstain from a certain act" or "to take certain order with respect to certain property in his possession or under his management". Section 144 also empowers the authorities to block the internet access.

3) National Health Profile (NHP) is an annual publication released by

- a) Niti Ayog
- b) *Ministry of Women and Child Development*
- c) Central Bureau of Health Intelligence (CBHI)
- d) Both b and c

Solution: c)

National Health Profile (NHP) is an annual publication of the Central Bureau of Health Intelligence (CBHI). The first release of the annual publication was in 2005. It covers all the major information on Demography, Socio-Economic Status, Disease Morbidity & Mortality, Healthcare Finance, Human Resources in Health and Healthcare Infrastructure. NHP is an initiative which is at par with international standards of data publications.

The objective of NHP is to create a versatile data base of health information of India and making it available to all stakeholders in the healthcare sector. This data base of health information is comprehensive, up-to-date and easy to access. This publication takes into account recent trends in demography, disease profile (communicable and non-communicable/lifestyle diseases) and available health resources which define a country's health status. The disease profile has been presented following standard coding from Family of International classification (FIC). This improves interoperability of the data internationally.

#### [Source](#)

4) Consider the following statements regarding Jet Streams.

1. Jet streams are narrow bands of strong winds that flow over thousands of kilometres predominantly from east to west.
2. Major jet streams are found near the upper levels of the atmosphere, around 9 to 16 km from the earth's surface.
3. In India, the Tropical jet stream influences the formation and duration of the summer monsoon.
4. Jet streams aid in the faster travelling of Aircrafts.

Which of the above statements is/are correct?

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

Solution: c)

The Boeing 747-436 plane was able to achieve a speed of 1,327 kph as it was aided by a strong jet stream generated due to Storm Ciara.

Jet streams are narrow bands of strong winds that flow over thousands of kilometres from west to east. Major jet streams are found near the upper levels of the atmosphere, around 9 to 16 km from the earth's surface, and can reach speeds of over 320 kph.

The jet streams shift to the north or south depending on the season. During winters, the wind current is the strongest. They are also closer to the Equator during winter.

The major jet streams are the Polar Front, Subtropical, and Tropical jet streams. In India, the Tropical jet stream influences the formation and duration of the summer monsoon.

Most commercial planes fly at the jet stream level, and a strong jet stream can provide a potent tailwind to a flight travelling from west to east, like the British Airways flight, which flew from New York to London. This helps reduce the travel time for such flights, as their speeds are boosted.

#### [Source](#)

5) Consider the following statements regarding Long Period Average (LPA).

1. LPA is the average rainfall received by the country as a whole during the entire year, for a 50-year period.
2. The current LPA is 89 cm, based on the average rainfall over years 1951 and 2000.
3. India Meteorological Department (IMD) brands the monsoon as 'normal' or 'deficient' based on how it fares against its benchmark Long Period Average (LPA).

Which of the above statements is/are correct?

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

Solution: c)

IMD brands the monsoon as 'normal' or 'deficient' based on how it fares against its benchmark Long Period Average (LPA).

LPA is the average rainfall received by the country as a whole during the south-west monsoon, for a 50-year period. The current LPA is 89 cm, based on the average rainfall over years 1951 and 2000. This acts as a benchmark against which the rainfall in any monsoon season is measured.

The country is said to have received deficient rainfall if the actual rainfall falls below 90 per cent of LPA.

Similarly, the country is said to have received excess rainfall if the rainfall is greater than 110 per cent of LPA. It is deemed 'normal' when the actual rainfall received falls between 96 and 104 per cent of LPA.

A 50-year average is expected to smooth out the day-to-day, month-to-month variations, while also accounting for freak weather events like the El Nino and La Nina.

Like the countrywide figure, IMD maintains an independent LPA for every homogeneous region of the country, which ranges from 71.6 cm to 143.83 cm. The region-wise LPA figures are: 143.83 cm for East and Northeast India, 97.55 cm for Central India, 71.61 cm for South Peninsular India, and 61.50 for Northwest India, which put together bring the all-India figure to 88.75 cm.

[Source](#)

6) Consider the following statements regarding Zero budget natural farming (ZBNF).

1. Zero budget natural farming (ZBNF) is a method of chemical free agriculture drawing from traditional Indian practices.
2. ZBNF method uses intensive irrigation and deep ploughing.
3. ZBNF method promotes soil aeration, intercropping, bunds and topsoil mulching.

Which of the above statements is/are correct?

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

Solution: c)

Zero budget natural farming (ZBNF) is a method of chemical-free agriculture drawing from traditional Indian practices.

It was originally promoted by Maharashtrian agriculturist and Padma Shri recipient Subhash Palekar, who developed it in the mid-1990s as an alternative to the Green Revolution's methods driven by chemical fertilizers and pesticides and intensive irrigation.

The ZBNF method also promotes soil aeration, minimal watering, intercropping, bunds and topsoil mulching and discourages intensive irrigation and deep ploughing.

[Source](#)