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1. Economy

- 1) Consider the following statements regarding E-commerce sector in India
 - 1. Marketplace model is where goods sold on the portal is owned or controlled by the ecommerce company.
 - 2. Inventory-based model is where the e-commerce firm simply acts as a platform that connects buyers and sellers.
 - 3. 100% FDI is allowed in e-commerce companies in marketplace model.

Which of the above statements is/are incorrect?

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

Solution: a)

E-commerce companies can operate under two different models in India.

- 1. The first is the marketplace model where the e-commerce firm simply acts as a platform that connects buyers and sellers. In order to increase the participation of foreign players in the e-commerce field, the Government has increased the limit of foreign direct investment (FDI) in the e-commerce marketplace model for up to 100%.
- 2. The second model is **inventory-based** where the **inventory of goods sold on the portal is owned or controlled by the e-commerce company**. FDI is not allowed under this model.
- 2) Consider the following statements regarding Financial Stability Report (FSR).
- 1. FSR is one of the most crucial documents on the Indian economy as it presents an assessment of the health of the financial system.
 - 2. FSR assess the macro-financial risks in the economy.
 - 3. It is released by the Ministry of Finance, twice each year.

Which of the above statements is/are correct?

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

Solution: c)

Reserve Bank of India released its latest Financial Stability Report (or FSR). Published twice each year, the FSR is one of the most crucial documents on the Indian economy as it presents an assessment of the health of the financial system.

The FSR also allows the RBI to assess the macro-financial risks in the economy. Macro-financial risks refer to the risks that originate from the financial system but affect the wider economy as well as risks to the financial system that originate in the wider economy.

Source

- 3) The Financial Stability Report by RBI looks at which of the following aspects?
 - 1. Do Indian banks (both public and private) have enough capital to run their operations.
 - 2. Are the levels of bad loans (or non-performing assets) within manageable limits.
 - 3. Are different sectors of the economy able to get credit for economic activity.

Select the correct answer code:

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

d) 1, 2, 3

Solution: d)

The FSR looks at questions like do Indian banks (both public and private) have enough capital to run their operations? Are the levels of bad loans (or non-performing assets) within manageable limits? Are different sectors of the economy able to get credit (or new loans) for economic activity such as starting a new business or buying a new house or car?

Source

- 4) Consider the following statements.
 - 1. State governments raise their own funds largely through taxes on liquor, property, road and vehicles.
- 2. Uttar Pradesh which has largest population, contributes maximum tax revenue to the Central Government.

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)

State governments get funds from the Central government according to the Finance Commission's recommendations.

State governments also raise their own funds largely through taxes on liquor, property, road and vehicles.

Maharashtra, Delhi and Karnataka contribute the lion's share of taxes to the government. These three regions along with Tamil Nadu and Gujarat contribute 72% of the tax revenue. **Uttar Pradesh, which has the largest population in India, contributes only 3.12% but gets over 17% of the revenue distributed by the Central government.**

For every ₹100 contributed, southern States get about 51% from the Central government, whereas Bihar gets about 200%. The population growth rates in the south have come down to near zero, whereas the population in central and north India continues to grow. The cross subsidy from the south to the north will therefore grow.

Source

- 5) Consider the following statements regarding Repco Bank.
 - 1. Repco Bank is a multi-state cooperative finance and development bank controlled by the Union Finance Ministry.
 - 2. It was established by the central government for rehabilitation of repatriates from Myanmar and Sri Lanka.
- 3. It is operated only in the South Indian states of Andhra Pradesh, Karnataka, Kerala and Tamil Nadu. Which of the above statements is/are correct?
 - a) 1, 2
 - b) 1, 3
 - c) 2, 3
 - d) 2 only

Solution: c)

Repco Bank (Repatriates Cooperative and Finance and Development Bank) is a cooperative bank established by the Government of India in 1969 to improve financial needs of repatriates from neighbouring countries mainly

from Sri Lanka and Myanmar. It has been controlled by the Ministry of Home Affairs and operated only in the South Indian states of Andhra Pradesh, Karnataka, Kerala and Tamil Nadu.

- 6) Consider the following statements regarding REIT (Real Estate Investment Trust).
- 1. REITs are investment vehicles that pool investor money like mutual funds and use it to buy real estate assets.
- 2. REITs can invest in all kinds of income-generating properties like residences, offices, hotels, malls and warehouses.
- 3. Majority of the portfolio of a REIT should be invested in completed and rent-generating properties. Which of the above statements is/are correct?
 - a) 1, 2
 - b) 1, 3
 - c) 2, 3
 - d) 1, 2, 3

Solution: d)

REITs are investment vehicles that pool investor money like mutual funds and use it to buy a portfolio of real estate assets. They manage these assets to generate a regular income and capital appreciation. In order to ensure that the REIT is able to generate income, 80 per cent of the portfolio of a REIT should be invested in completed and rent-generating properties.

While **REITs** can invest in all kinds of income-generating properties — residences, offices, hotels, malls, warehouses, in India the listed REITs are focussed mainly on office space.

As per SEBI's guidelines, REITs need to mandatorily distribute 90 per cent of their income to unit-holders. The distribution could be in the form of dividend or interest income or both.

Source

- 7) Consider the following statements regarding Small Savings Schemes (SSS).
 - 1. The Central Government operates Small Savings Schemes (SSS) through the network of post offices, Public-Sector Banks and select private sector banks.
 - 2. National Small Savings Fund (NSSF) was established within the Public Account of India for pooling the money from different SSSs.
 - 3. In the last 5 years the Central Government's reliance on Small Savings Schemes for financing its deficit has been decreasing.

Which of the above statements is/are correct?

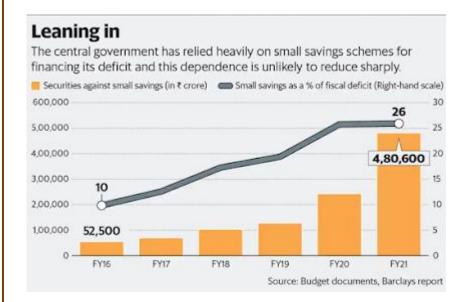
- a) 1 only
- b) 1, 2
- c) 1, 3
- d) 1, 2, 3

Solution: b)

The Central Government operates Small Savings Schemes (SSS) through the nationwide network of about 1.5 lakh **post offices,** more than 8,000 branches of the **Public-Sector Banks and select private sector banks** and more than 5 lakh small savings agents.

National Small Savings Fund (NSSF) was established in 1999 within the Public Account of India for pooling the money from different SSSs. Collections from all small savings schemes ae credited to the NSSF.

Objective for the formation of a dedicated fund for small savings is to de-link small savings transactions from the Consolidated Fund of India. Since NSSF operates in the Public Account, its transactions do not impact the fiscal deficit of the Centre directly.



- 8) Which of the following departments come under the ambit of Union Ministry of Finance?
 - 1. Department of Economic Affairs
 - 2. Department of Financial Services
 - 3. Department of Investment and Public Asset Management
 - 4. Department of Public Enterprises

Select the correct answer code:

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

Solution: d)

The department of public enterprises (DPE) has now been made part of the finance ministry. For years, DPE was part of the ministry of heavy industries, with a separate department carved out for public enterprises. The department will oversee the functioning of 36 PSUs, apart from issues such as heavy engineering and automobiles, providing the finance minister direct oversight over policies related to some key manufacturing sectors.

Finmin had 3 departments Expenditure Revenue Conomic affairs Department of public enterprises has come under the direct control of finance minister Nirmala Sitharaman This is seen as a move to exercise greater financial control over state-run enterprises

Source

- 9) Consider the following statements regarding National Asset Reconstruction Company Ltd (NARCL).
- 1. National Asset Reconstruction Company Ltd (NARCL) also called as bad bank is given legal recognition by the Corporate Affairs Ministry.
 - 2. The Government of India has the maximum equity contribution to NARCL.

Which of the above statements is/are correct?

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

Solution: a)

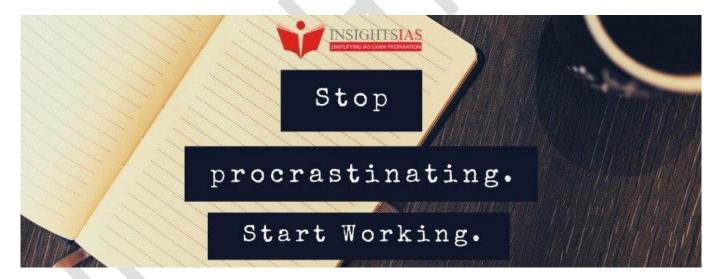
The much-awaited bad bank — National Asset Reconstruction Company Ltd (NARCL) — has been incorporated, with the Corporate Affairs Ministry giving legal recognition.

The capital structure will have a component of both equity and debt. Public sector banks led by Canara Bank (which is likely to have 12 per cent stake) are expected to hold controlling stake in NARCL.

The other banks that are expected to pump in capital include State Bank of India, Bank of Baroda, Bank of India and IDBI Bank.

The government will not have any direct equity contribution to NARCL.

Source



2. Ecology and Environment

- 1) Consider the following statements.
 - 1. The productivity of the Oceans increases when the carbon emission from the atmosphere are sunk by
 - 2. The ocean warming increases the frequency of tropical cyclone winds and rainfall.

Which of the above statements is/are incorrect?

a) 1 only

it.

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

Solution: a)

Due to greenhouse gas emissions, global warming is already 1°C higher than the pre-industrial levels. There is vast evidence that this has serious consequences for ecosystems and human being. The IPCC's special report on Oceans and Cryosphere (published in 2019) reveals that the ocean is 0.8 degrees warmer than the pre-industrial age. It is more acidic, and less productive because of the carbon emission that was sunk by the oceans.

The impact of ocean warming would be an increase in the frequency of tropical cyclone winds and rainfall, as well as an increase in extreme waves, all of which would be accompanied by a rise in relative sea level.

Source

- 2) Consider the following statements regarding 'Last Ice Area', recently seen in news
 - 1. The 'Last Ice Area', is located in the Arctic's Ice north of Greenland.
- 2. The area has stooped melting of Ice and is strong enough to withstand the effects of global warming. 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 part of the Arctic's ice called "Last Ice Area", located north of Greenland, has melted before expected. Scientists had believed this area was strong enough to withstand global warming.

The area is important because it was thought to be able to help ice-dependent species as ice in the surrounding areas melted away. The area is used by polar bears to hunt for seals who use ice to build dens for their offspring. Walruses too, use the surface of the ice for foraging.

Source

- 3) Consider the following statements regarding Summer Solstice.
- 1. During summer solstice, the Earth's axis is tilted in a way that the North Pole is tipped towards the sun and the South Pole is away from it.
- 2. The amount of incoming energy the Earth received from the sun is higher at the North Pole than at the Equator.
 - 3. At the Arctic Circle, the sun never sets during the summer solstice.
- 4. Summer solstice will bring the earliest sunrise or latest sunset for all the places in the Northern Hemisphere.

Which of the above statements is/are correct?

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

Solution: b)

The longest day of 2021 for those living north of the Equator is June 21. In technical terms, this day is referred to as the summer solstice, the longest day of the summer season. It occurs when the sun is directly over the Tropic of Cancer, or more specifically right over 23.5 degree north latitude.

Why do we have summer solstice?

Since Earth rotates on its axis, the Northern Hemisphere gets more direct sunlight between March and September over the course of a day, which also means people living in the Northern Hemisphere experience summer during this time. The rest of the year, the Southern Hemisphere gets more sunlight.

During the solstice, the Earth's axis — around which the planet spins, completing one turn each day — is tilted in a way that the North Pole is tipped towards the sun and the South Pole is away from it.

The solstice, as NASA puts it, is that instant in time when the North Pole points more directly toward the sun that at any other time during the year.

The amount of light received by a specific area in the Northern Hemisphere during the summer solstice depends on the latitudinal location of the place. The further north one moves from the equator, the more light one receives during the summer solstice. At the Arctic Circle, the sun never sets during the solstice.

Although June 21 will be the longest day in 2021, it does not necessarily mean that it brings the earliest sunrise or latest sunset. It depends on the latitudinal location of the country.

Source

- 4) Consider the following statements regarding Heat Pumps, recently seen in news.
 - 1. Heat pumps are used both to cool and warm a place.
 - 2. Heat pumps work by creating heat and make the place warmer.
 - 3. They are most efficient in moderate climatic conditions.

Which of the above statements is/are correct?

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

Solution: c)

Heat pumps use electricity to **move heat from a cool space to a wam space**. This makes the cool place cooler and the warm place warmer. Therefore, a **heat pump does not create any heat or cool air**, but it merely shifts air. For instance, if a heat pump is being used inside a room to make it cool, it will absorb the heat in the room and will release it outdoors with the help of an outdoor compressor. In heating mode, the heat pump will absorb heat from outside and release it indoors.

They are most efficient in moderate climates.

Source

5) Consider the following statements.

- 1. A hot spell is labelled as a 'Heat Wave' only when temperatures are above the historical average in an area for more than one week.
- 2. Heat waves begin when high pressure in the atmosphere moves in and pushes warm air toward the ground.
- 3. When heat waves occur, the wind and cloud cover are minimised, which makes the air hotter. Which of the above statements is/are correct?
 - a) 1, 2
 - b) 1, 3
 - c) 2 only
 - d) 2, 3

Solution: d)

Temperatures must be above the historical average in an area for two or more days before the label "heat wave" is applied to a hot spell. But the definition can vary by region;

Heat waves begin when high pressure in the atmosphere moves in and pushes warm air toward the ground. That air warms up further as it is compressed, and we begin to feel a lot hotter.

The high-pressure system pressing down on the ground expands vertically, forcing other weather systems to change course. **It even minimizes wind and cloud cover, making the air more stifling.** This is also why a heat wave parks itself over an area for several days or longer.

Source

- 6) Buxwaha forest, recently seen in news is located in
 - a) Arunachal Pradesh
 - b) Jharkhand
 - c) Uttarakhand
 - d) Madhya Pradesh

Solution: d)

The proposed diamond mine in the **Buxwaha protected forest region in Chhatarpur district of Madhya Pradesh** may have a greater ecological impact on the region than projected so far.

Source

- 7) Consider the following statements regarding methanogens.
 - 1. Methanogens are microorganisms that are capable of generating methane as a metabolic byproduct.
 - 2. They are found in swamps, dead organic matter, and even in the human gut.
 - 3. They cannot survive in high temperatures.

Which of the above statements is/are correct?

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

Solution: b)

NASA's Cassini spacecraft has detected an unusually high concentration of methane, along with carbon dioxide and dihydrogen, in the moons of Saturn by flying through their plumes. The spacecraft has found that **Titan has methane in its atmosphere** and Enceladus has a liquid ocean with erupting plumes of gas and water.

Most of the methane on Earth has a biological origin. **Microorganisms called methanogens are capable of generating methane as a metabolic byproduct.** They do not require oxygen to live and are widely distributed in

nature. They are found in swamps, dead organic matter, and even in the human gut. They are known to survive in high temperatures and simulation studies have shown that they can live in Martian conditions. Methanogens have been widely studied to understand if they can be a contributor to global warming.

Source

- 8) Lemru Elephant Reserve, a proposed Elephant Reserve is located in
 - a) Madhya Pradesh
 - b) Kerala
 - c) Chhattisgarh
 - d) Assam

Solution: c)

The proposed Lemru Elephant Reserve in Chhattisgarh.

Source

- 9) Consider the following statements regarding transgenic crop.
 - 1. In India there is no commercial cultivation of transgenic crops.
 - 2. Transgenic crops are more toxic and always proliferate in the environment.
 - 3. Transgenic crops can bring new gene combinations which are not found in nature.

Which of the above statements is/are correct?

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

Solution: a)

Plant genetic engineering methods were developed over 30 years ago, and since then, genetically modified (GM) crops or transgenic crops have become commercially available and widely adopted in many countries.

In India, Bt cotton was approved by Government of India in March 2002 as the first transgenic crop for commercial cultivation.

Though, it is widely claimed that transgenic crops offers dramatic promise for meeting some of greatest challenges but like all new technologies, it also poses certain risks, because of the fact that transgenic crops can bring together new gene combinations which are not found in nature having possible harmful effects on health, environmental and non-target species.

Transgenic crops are not toxic nor are likely to proliferate in the environment. However, specific crops may be harmful by virtue of novel combinations of traits they possess.

- 10) Balukhand Wildlife Sanctuary, sometimes seen in the news, is located in
 - a) Bihar
 - b) Uttar Pradesh
 - c) Odisha
 - d) Andhra Pradesh

Solution: c)

The **Balukhand-Konark Wildlife Sanctuary** is a wildlife sanctuary located in the state of **Odisha.** The sanctuary is home to a herd of Blackbuck and Spotted Deer. Olive ridley sea turtles nest on the beaches.

Source

- 11) Consider the following statements regarding 're-wilding' of wild animals.
- 1. Re-wilding means reintroduction of the cub into the wild after a certain time when it appears that the cub is capable of surviving in the wild independently.
- 2. Wildlife Protection Act, 1972 does not provide any procedures or guidelines for the 're-wilding' of wild animals.
- 3. Bombay Natural History Society (BNHS) has been working towards successfully introducing the endangered gyps species into the wild.

Which of the above statements is/are correct?

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

Solution: b)

The recent attempt of Periyar Tiger Reserve (PTR) to reintroduce into the wild an abandoned **nine-month-old cub named Mangala** after rearing it in 'captivity' for two years has once again brought the controversial concept of 're-wilding' of abandoned or injured animals under the lens.

As per the Standard Operating Procedures/Guidelines laid down by the National Tiger Conservation Authority (NTCA) under Section 38(O) of The Wildlife Protection Act, 1972, there are three ways to deal with orphaned or abandoned tiger cubs.

The first is to make an effort to reunite the abandoned cubs with their mother.

Second, if a reunion of the cub with its mother is not possible, then shift the cub to a suitable zoo.

Third, reintroduction of the cub into the wild after a certain time when it appears that the cub is capable of surviving in the wild independently. This is what is known as 're-wilding'.

Re-wilding is not limited to cats. There have been efforts to reintroduce other endangered species, including scavengers, into the wild after rearing them in captivity.

The Bombay Natural History Society (BNHS) in collaboration with the Haryana Forest and Wildlife Department has been running a vulture conservation centre named 'Jatayu' near Pinjore for the last 17 years. Several pairs of endangered gyps species, including the white-backed, the long-billed, and the slender-billed, have been successfully introduced into the wild.

Source

- 12) Consider the following statements regarding Coal Bed Methane (CBM).
- 1. Coal Bed Methane (CBM) is an unconventional form of natural gas found in coal deposits or coal seams.
 - 2. CBM can be used as feedstock for fertilisers and as compressed natural gas (CNG) auto fuel.
 - 3. India has the largest CBM reserves in the world.

Which of the above statements is/are correct?

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

Solution: b)

India has the fifth-largest coal reserves in the world, and CBM has been looked at as a clean alternative fuel with significant prospects.

What is coalbed methane (CBM)?

CBM, like shale gas, is extracted from what are known as unconventional gas reservoirs — where gas is extracted directly from the rock that is the source of the gas (shale in case of shale gas and coal in case of CBM). The methane is held underground within the coal and is extracted by drilling into the coal seam and removing the groundwater. The resulting drop in pressure causes the methane to be released from the coal.

The country's coal and CBM reserves are found in 12 states of India, with the **Gondwana sediments of eastern India holding the bulk.**

The Damodar Koel valley and Son valley are prospective areas for CBM development, with CBM projects existing in Raniganj South, Raniganj East and Raniganj North areas in the Raniganj coalfield, the Parbatpur block in Jharia coalfield and the East and West Bokaro coalfields.

The Son valley includes the Sonhat North and Sohagpur East and West blocks.

CBM can be used for power generation, as **compressed natural gas (CNG) auto fuel**, as **feedstock for fertilisers**, industrial uses such as in cement production, rolling mills, steel plants, and for methanol production.

Source

- 13) Consider the following statements.
- 1. Lightning is a very rapid and massive discharge of electricity in the atmosphere, some of which is directed towards the Earth's surface.
- 2. It is generated in giant moisture-bearing clouds, whose base typically lies above 10 to 12 km from the Earth's surface.

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)

Lightning is a very rapid — and massive — discharge of electricity in the atmosphere, some of which is directed towards the Earth's surface. These discharges are generated in giant moisture-bearing clouds that are 10-12 km tall. The base of these clouds typically lies within 1-2 km of the Earth's surface, while their top is 12-13 km away. Temperatures towards the top of these clouds are in the range of minus 35 to minus 45 degrees Celsius.

Source

- 14) Consider the following statements regarding Sargasso Sea.
 - 1. The Sargasso Sea is located entirely within the Pacific Ocean.
 - 2. It is the only sea without a land boundary.
 - 3. It is bounded by four ocean currents forming an ocean gyre.

Which of the above statements is/are correct?

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

Solution: a)

The Sargasso Sea, located entirely within the Atlantic Ocean, is the only sea without a land boundary. It is bounded by four ocean currents forming an ocean gyre.

It is distinguished from other parts of the Atlantic Ocean by its characteristic brown **Sargassum seaweed** and often calm blue water.

The sea is bounded on the west by the **Gulf Stream**, on the north by the **North Atlantic Current**, on the east by the **Canary Current**, and on the south by the **North Atlantic Equatorial Current**, the four together forming a clockwise-circulating system of ocean currents termed the North Atlantic Gyre.

- 15) Consider the following statements regarding Tiger tracking.
 - 1. In India Tigers are tracked only by using Radio collars that are put around its neck.
 - 2. Radio collars help in studying the Tiger's behaviour, their feeding and movement patterns.
 - 3. Tiger tracking is done both in protected areas (PAs) and non- protected areas.

Which of the above statements is/are correct?

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

Solution: d)

Over the years, tiger tracking has improved tremendously. **Two major ways of tracking a tiger include camera traps**, and **radio collars**. GSM camera traps can also be used, though they are dependent on internet connectivity. **Radio collars are put on tigers for long-term studies of their behaviour, their feeding and movement patterns, etc**. For this, a tiger is tranquilised and the collar put around its neck. Using the highly sophisticated technology of radio telemetry, officials can get real-time information about its movement.

Tiger tracking is done both in protected areas (PAs) and non-PAs (generally human-dominated landscapes).

Source

- 16) Seaweeds are macroscopic algae usually found in oceans. In this context, which of the following can be the possible benefits of it?
 - 1. It is a vital food for marine organism.
 - 2. It can be used as fertilizer for plants.
 - 3. It reduces coastal eutrophication.

Select the correct answer code:

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

Solution: a)

All the above are the benefits of sea weeds.

Seaweed, or macroalgae, refers to several species of macroscopic, multicellular, marine algae. Seaweed species such as kelps provide essential nursery habitat for fisheries and other marine species and thus protect food sources; other species, such as planktonic algae, play a vital role in capturing carbon, producing up to 90% of Earth's oxygen.

- 17) Consider the following statements regarding Operation Olivia.
 - 1. Operation Olivia is undertaken by the Ministry of environment forest and climate change.
- 2. It helps protect Olive Ridley turtles as they congregate along the Odisha coast for breeding and nesting from November to December.

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)

Every year, the Indian Coast Guard's "Operation Olivia", initiated in the early 1980s, helps protect Olive Ridley turtles as they congregate along the Odisha coast for breeding and nesting from November to December.

Source

- 18) Consider the following statements.
- 1. The Olive Ridley Turtle is listed as Critically Endangered under the International Union for Conservation of Nature's Red list.
- 2. All five species of sea turtles found in India are included in Schedule I of the Indian Wildlife Protection Act, 1972.
 - 3. Olive Ridley Turtle's mass nesting is called as arribada.

Which of the above statements is/are correct?

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

Solution: c)

The Olive Ridley (Lepidochelys olivacea) is **listed as vulnerable** under the International Union for Conservation of Nature's Red list. **All five species of sea turtles found in India are included in Schedule I of the Indian Wildlife Protection Act, 1972**, and in the Appendix I of the Convention of International Trade in Endangered Species of Wild Fauna and Flora (CITES), which prohibits trade in turtle products by signatory countries.

The Olive Ridley has one of the most extraordinary nesting habits in the natural world, **including mass nesting called arribadas.** The 480-km-long Odisha coast has three arribada beaches at Gahirmatha, the mouth of the Devi river, and in Rushikulya, where about 1 lakh nests are found annually.

More recently, a new mass nesting site has been discovered in the Andaman and Nicobar Islands.

Source

- 19) Consider the following statements regarding microplastics.
 - 1. Microplastics are fragments of plastic less than 5 mm in length.
- 2. Microplastics are ingested by marine habitants including fish, planktons and sea mammals and are then carried further into the food chain.
 - 3. Corals are the only exception where microplastics are not ingested by them.

Which of the above statements is/are correct?

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

Solution: b)

Delhi-based NGO Toxics Link **released a study**, "Quantitative analysis of Microplastics along River Ganga", which has found that the river – which flows through five states covering about 2,500 km before flowing into the Bay of Bengal – is heavily polluted with microplastics.

Among the range of plastic debris that is found in water bodies, microplastics are the most notorious because of their small size, on average microplastics are less than 5 mm in length or roughly equal to five pinheads.

Because microplastics are so small, they are **ingested by marine habitants including fish, corals, planktons and sea mammals and are then carried further into the food chain.** In the case of humans, most of the microplastics can be found in food, water and food containers and their ingestion can cause health problems.

Source

- 20) Consider the following statements regarding Great Indian Bustards (GIBs).
 - 1. GIBs are the largest among the bustard species found in India.
- 2. GIBs are considered the flagship bird species of grassland and hence barometers of the health of grassland ecosystems.
 - 3. In India, majority of the GIBs are found in Gujarat.

Which of the above statements is/are correct?

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

Solution: c)

GIBs are the largest among the four bustard species found in India, the other three being MacQueen's bustard, lesser florican and the Bengal florican. GIBs' historic range included much of the Indian sub-continent but it has now shrunken to just 10 per cent of it. Among the heaviest birds with flight, GIBs prefer grasslands as their habitats. Being terrestrial birds, they spend most of their time on the ground with occasional flights to go from one part of their habitat to the other. They feed on insects, lizards, grass seeds etc. GIBs are considered the flagship bird species of grassland and hence barometers of the health of grassland ecosystems.

GIB population in India had fallen to just 150. Of them **128 birds were in Rajasthan**, 10 in Kutch district of Gujarat and a few in Maharashtra, Karnataka and Andhra Pradesh.

Pakistan is also believed to host a few GIBs. The historical range of these majestic birds included much of Indian sub-continent but it has now shrunk by 90 per cent.

The International Union for Conservation of Nature (IUCN) has categorised GIBs as critically endangered, thus on the brink of extinction from the wild.

- 21) Consider the following statements.
- 1. The standing committee of the National Board for Wildlife (NBWL) approves the diversion of wildlife habitat for projects such as roads, railways and transmission lines.
- 2. The geographical expanse of India's protected areas including national parks and wildlife sanctuaries is greater than the globally recognised Aichi Biodiversity Target.

Which of the above statements is/are correct?

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

Solution: a)

In 2020, the standing committee of the National Board for Wildlife (NBWL) approved the diversion of as much as 1,792 hectares of wildlife habitat. Most of the diversion is for linear projects such as roads, railways and transmission lines.

At around 4.9% of India's geographical expanse, its protected areas – including national parks and wildlife sanctuaries – are anyway seriously short of the globally recognised Aichi Biodiversity Target of 17%.

Source

- 22) Bhagwan Mahaveer Wildlife Sanctuary and Mollem National Park is located in
 - a) Goa
 - b) Andhra Pradesh
 - c) Maharashtra
 - d) Madhya Pradesh

Solution: a)

Bhagwan Mahaveer Sanctuary and Mollem National Park is a protected area located in the Western Ghats in Goa.

3. Government Schemes and Programmes

- 1) Consider the following statements regarding Deep Ocean Mission.
 - 1. The Ministry of Earth Sciences will be the nodal Ministry implementing this mission.
- 2. It involves developing a submersible vehicle that will allow a crew to search the ocean floor for precious metals.

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 Union Cabinet has approved the long pending Deep Ocean Mission, which among other things involves developing a submersible vehicle that will allow a crew to plunge 6,000 metres into the ocean and hunt the floor for precious metals.

The Ministry of Earth Sciences (MoES) will be the nodal Ministry implementing this multi-institutional mission.

Source

- 2) Consider the following statements.
- 1. In the last two decades, the prevalence of anaemia among Indian women of reproductive age has decreased and is less than the world average.
 - 2. Reduction of anaemia is one of the important objectives of the POSHAN Abhiyaan.
 - 3. The major cause for anaemia is the deficiency in Iron and folate.

Which of the above statements is/are correct?

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

Solution: c)

In the last two decades, the prevalence of anaemia among Indian women of reproductive age, on average, has been 20 per cent more than the world average. While one in three women in the world is anaemic, one in two women is anaemic in India.

Although there are several causes of anaemia, the foremost is iron deficiency, followed by deficiencies in folate, Vitamin B12 and Vitamin A.

Reduction of anemia is one of the important objectives of the POSHAN Abhiyaan.

The Anemia Mukt Bharat strategy is estimated to reach out to 450 million beneficiaries of different age groups.

Source

- 3) Consider the following statements regarding One Nation, One Ration Card (ONORC) system.
- 1. The ONORC scheme is aimed at enabling migrant workers and their family members to buy subsidised ration from any fair price shop anywhere in the country under the National Food Security Act, 2013.
- 2. ONORC is based on technology that involves details of beneficiaries' ration card, Aadhaar number, and electronic Points of Sale (ePoS).
- 3. Till date, less than half of states and Union Territories have joined the ONORC. Which of the above statements is/are correct?
 - a) 2 only
 - b) 1, 2
 - c) 1, 3
 - d) 1, 2, 3

Solution: b)

The Supreme Court directed all states and Union Territories to implement the One Nation, One Ration Card (ONORC) system, which allows for inter- and intra-state portability, by July 31.

The ONORC scheme is aimed at enabling migrant workers and their family members to buy subsidised ration from any fair price shop anywhere in the country under the National Food Security Act, 2013.

ONORC is based on technology that involves details of beneficiaries' ration card, Aadhaar number, and electronic Points of Sale (ePoS). The system identifies a beneficiary through biometric authentication on ePoS devices at fair price shops. The system runs with the support of two portals —Integrated Management of Public Distribution System (IM-PDS) (impds.nic.in) and Annavitran (annavitran.nic.in), which host all the relevant data.

Till date, 32 states and Union Territories have joined the ONORC, covering about 69 crore NFSA beneficiaries. Four states are yet to join the scheme — Assam, Chhattisgarh, Delhi and West Bengal.

<u>Source</u>

- 4) Consider the following statements regarding Open Network for Digital Commerce (ONDC) project.
- 1. ONDC project was announced by the Ministry of Finance to address the issue of digital monopolies on e-commerce platforms.
- 2. It will allow sellers to be discoverable across multiple e-commerce platforms for a wider reach to customers instead of available to customers on only one particular e-commerce platform. 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 Department for Promotion of Industry and Internal Trade (DPIIT) announced an Open Network for Digital Commerce (ONDC). Open Network for Digital Commerce (ONDC) project that is aimed at curbing "digital"

monopolies". This is a step in the direction of making e-commerce processes open source, thus creating a platform that can be utilised by all online retailers.

It will make the e-commerce ecosystem open source, which means allowing sellers to be discoverable across multiple platforms for a wider reach to customers instead of available to customers on only one particular e-commerce platform, will help democratize digital commerce much like Unified Payments Interface (UPI).

Source Source

- 5) Which of the following are the components of Deep Ocean Mission?
 - 1. Developing Ocean Climate Change Advisory Services.
 - 2. Explore and identify potential sources of hydrothermal minerals.
- 3. Preparing engineering design for offshore Ocean Thermal Energy Conversion (OTEC) powered desalination plants.
- 4. Searching for deep sea flora and fauna, and studying ways to sustainably utilise them. Select the correct answer code:
 - a) 1, 2, 3
 - b) 1, 3, 4
 - c) 1, 2, 4
 - d) 1, 2, 3, 4

Solution: d)

There are six components to the programme.

A manned submersible will be developed to carry three people to a depth of 6,000 metres in the ocean with a suite of scientific sensors and tools. An Integrated Mining System will be also developed for mining polymetallic nodules at those depths in the central Indian Ocean.

The second component involves **developing Ocean Climate Change Advisory Services**, which entails developing a suite of observations and models to understand and provide future projections of important climate variables on seasonal to decadal time scales.

The next component is searching for deep sea flora and fauna, including microbes, and studying ways to sustainably utilise them.

The fourth component is to **explore and identify potential sources of hydrothermal minerals** that are sources of precious metals formed from the earth's crust along the Indian Ocean mid-oceanic ridges.

The fifth component involves studying and preparing detailed engineering design for offshore Ocean Thermal Energy Conversion (OTEC) powered desalination plants.

The final component is aimed at grooming experts in the field of ocean biology and engineering.

Source

- 6) Consider the following statements regarding Sovereign Gold Bond (SGB).
 - 1. SGBs are government securities denominated in grams of gold.
 - 2. Bonds are issued by Non-Banking Financial Institutions and Private Banks in India
 - 3. Eligible investors include individuals, trusts, universities and charitable institutions.

Which of the above statements is/are correct?

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

Solution: c)

SGBs are government securities denominated in grams of gold. They are substitutes for holding physical gold. Investors have to pay the issue price in cash and the bonds will be redeemed in cash on maturity. **The Bond is issued by Reserve Bank on behalf of Government of India.**

The quantity of gold for which the investor pays is protected, since he receives the ongoing market price at the time of redemption/ premature redemption. The SGB offers a superior alternative to holding gold in physical form. The risks and costs of storage are eliminated. Investors are assured of the market value of gold at the time of maturity and periodical interest. SGB is free from issues like making charges and purity in the case of gold in jewellery form. The bonds are held in the books of the RBI or in demat form eliminating risk of loss of scrip etc.

Persons resident in India as defined under Foreign Exchange Management Act, 1999 are eligible to invest in SGB. Eligible investors include individuals, HUFs, trusts, universities and charitable institutions. Individual investors with subsequent change in residential status from resident to non-resident may continue to hold SGB till early redemption/maturity.

Source

- 7) Consider the following statements.
- 1. Retail and wholesale traders are included in the micro, small and medium enterprises (MSMEs) classification.
 - 2. Retail and wholesale traders are not eligible for priority sector lending under RBI framework.
 - 3. Emergency Credit Line Guarantee Scheme (ECLGS) includes support to MSMEs.

Which of the above statements is/are correct?

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

Solution: b)

The Reserve Bank of India (RBI) has notified the inclusion of retail and wholesale trade under the ambit of the MSME (micro, small and medium enterprise) category.

This will help retail and wholesale trade benefit from priority sector lending under RBI guidelines.

As many as 2.5 crore retail and wholesale traders stand to benefit from the revised guidelines. The move will **also let them register on the Udyam portal for MSMEs.**

Udyam Registration portal is the government's official portal to register an MSME. The beneficiaries of the new change would be retail and wholesale trade and repair of motor vehicles and motorcycles, retail trade except of motor vehicles and motorcycles, and wholesale trade except of motor vehicles and motorcycles.

In order to mitigate the stress caused by the Covid-19 pandemic on several sectors across the country, the government has announced an Emergency Credit Line Guarantee Scheme, which incorporates ECLGS 1.0, ECLGS 2.0 and ECLGS 3.0. The scheme aimed to provide Rs 3 lakh crore worth of collateral-free, government-guaranteed loans to micro, small and medium enterprises (MSMEs) across India to mitigate the distress caused by the coronavirus-induced lockdown.

Source

- 8) In its present form, Unlawful Activities (Prevention) Act contains which of the following?
 - 1. Punishment for terrorist acts and activities.
 - 2. Punishment for acts threatening India's security, including its economic security.
 - 3. Provisions to prevent the use of funds for terrorist purposes, including money laundering.

Select the correct answer code:

a) 1, 2

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

Solution: d)

In its present form, the Act, after the amendments in 2004 and 2013, covers the declaration of associations as unlawful, punishment for terrorist acts and activities, acts threatening the country's security, including its economic security (a term that covers fiscal and monetary security, food, livelihood, energy ecological and environmental security), and provisions to prevent the use of funds for terrorist purposes, including money laundering.

Under Section 43D (5) of the Act, bail cannot be granted to a suspect if the court is of the opinion that there are reasonable grounds to believe that the charges are prima facie true.

Source

- 9) Consider the following statements regarding the recently launched NIPUN Bharat Mission.
 - 1. The Mission has been launched under the aegis of Samagra Shiksha Scheme.
- 2. It focus on providing access and retaining children in foundational years of schooling. 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)

Union Education Minister launched the **National Initiative for Proficiency in Reading with Understanding and Numeracy (NIPUN Bharat)** for ensuring that every child in the country necessarily attains foundational literacy and numeracy by the end of grade 3, by 2026-27.

The mission planned as per the new National Education Policy (NEP) has been launched under the aegis of the centrally sponsored scheme of **Samagra Shiksha**. It will focus on **providing access and retaining children in foundational years of schooling**, teacher capacity building; development of high quality and diversified student and teacher resources and tracking the progress of each child in achieving learning outcomes.

NIPUN Bharat aims to cover the learning needs of children in the age group of 3 to 9 years.

Source

- 10) Indian Ordnance Factories functions under the
 - a) Ministry of Home Affairs
 - b) Ministry of Heavy Industries & Public Enterprises
 - c) Ministry of Defence
 - d) None of the above

Solution: c)

Indian Ordnance Factories is the oldest and largest industrial setup which **functions under the Department of Defence Production of the Ministry of Defence**. The ordnance factories form an integrated base for indigenous production of defence hardware and equipment, with the primary objective of self reliance in equipping the armed forces with state-of-the-art battlefield equipment.

Source

4. Science and Technology

- 1) Monoclonal antibodies have been used in the treatment of
 - 1. Covid-19
 - 2. Ebola
 - 3. HIV

Select the correct answer code:

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

Solution: d)

Besides Covid-19, monoclonal antibodies have been used in the treatment of cancers as well as Ebola and HIV.

Source

- 2) Consider the following statements regarding Peter Pan Syndrome.
- 1. People with Peter Pan Syndrome develop behaviours like living life carefree and finding responsibilities challenging in adulthood.
 - 2. It can affect anyone, irrespective of gender, race or culture.
 - 3. World Health Organization recognise Peter Pan Syndrome as a health disorder

Which of the above statements is/are correct?

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

Solution: b)

- Peter Pan is a fictional character created by Scottish novelist James Matthew Barrie in the early 1900s. His character is one of a care-free young boy, who never grows up.
- It is said that people who develop similar behaviours of living life carefree, finding responsibilities challenging in adulthood, and basically, "never growing up" suffer from Peter Pan Syndrome.
- While the World Health Organization does not recognise Peter Pan Syndrome as a health disorder, many experts believe it is a mental health condition that can affect one's quality of life.
- As Peter Pan Syndrome hasn't officially been diagnosed as a health disorder, there aren't clearly-defined symptoms or characteristics or even reasons which cause it. However, according to HealthLine, it could affect one's daily routine, relationships, work ethic, and result in attitudinal changes.

Source

- 3) Consider the following statements regarding Small Satellite Launch Vehicle (SSLV).
- 1. SSLV is a small-lift launch vehicle being developed by ISRO and marketed by New Space India Limited (NSIL).
 - 2. It has the payload capacity of 500 kg.
 - 3. It can launch satellites only to Low-earth orbit.

Which of the above statements is/are correct?

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

Solution: a)

The Small Satellite Launch Vehicle (or SSLV) is a small-lift launch vehicle being developed by the Indian Space Research Organisation (ISRO) with payload capacity to deliver 500 kg (1,100 lb) to low Earth orbit (500 km (310 mi)) or 300 kg (660 lb) to Sun-synchronous orbit (500 km (310 mi)) for launching small satellites.

The first space launch from Small Satellite Launch Vehicle (SSLV), **built by ISRO and marketed by the state-owned New Space India Limited (NSIL)**, is yet to happen. It is expected by end of 2021.

Source

- 4) Consider the following statements.
- 1. Reusable Launch Vehicle-Technology Demonstrator (RLV-TD) is India's first uncrewed flying testbed developed for ISRO's Reusable Launch Vehicle Technology Demonstration Programme.
- 2. GSLV Mark II uses an Indian cryogenic engine and is capable of launching 2500 kg into geostationary transfer orbit.

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)

RLV-TD is India's first uncrewed flying testbed developed for the Indian Space Research Organisation (ISRO)'s Reusable Launch Vehicle Technology Demonstration Programme.

RLV-TD was developed by ISRO under the RLV Technology Demonstration Programme. The Technology Demonstration Programme consists of development of **hypersonic rocket** with air-breathing engines and the reusable launch vehicle.

GSLV Mark II: This variant uses an Indian cryogenic engine, the CE-7.5, and is capable of launching 2500 kg into geostationary transfer orbit.

Source

- 5) Consider the following statements regarding Zoonotic Diseases.
 - 1. Zoonotic diseases have impacted humankind since the beginning of its association with animals.
 - 2. Out of all the human disease-causing pathogens identified so far, only around 10% are of animal origin.
- 3. Increased incidences of zoonotic diseases in recent times are a direct consequence of Large-scale deforestation and encroachment of pristine natural ecosystems.

Which of the above statements is/are correct?

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

Solution: c)

Zoonotic diseases, impact humankind since the beginning of its association with animals. They are also the most numerous ones. **Out of all the human disease-causing pathogens identified so far, over 60% are of animal origin**. These include the causative agents for several well-known human and livestock diseases such as Tuberculosis, Brucellosis, Anthrax, Leptospirosis, and Rabies.

Though the natural genetic changes that make these pathogens more infectious and lethal are outside our control, several field observations and scientific investigations have established that the **increased incidences of zoonotic diseases in recent times are a direct consequence of the ongoing abuse of nature.**

Our irresponsible actions such as large scale deforestation and encroachment of pristine natural ecosystems; reckless land-use changes either to enhance agriculture and livestock productions, or to provide land for infrastructure and industrial developments; and unsustainable consumption, coupled with unregulated trade of wildlife and their derivatives, often via a long and unhygienic supply chain, provide the enabling conditions for such disease spillovers.

Source

- 6) EnVision mission is an orbital mission to Venus being developed by
 - a) National Aeronautics and Space Administration (NASA)
 - b) European Space Agency (ESA)
 - c) Japan Aerospace Exploration Agency (JAXA)
 - d) Indian Space Research Organisation (ISRO)

Solution: b)

Following NASA's footsteps, the European Space Agency (ESA) announced that it has selected EnVision as its next orbiter that will visit Venus sometime in the 2030s.

Source

- 7) Consider the following statements regarding 'Agni Prime' Missile.
 - 1. It is a canisterised missile with range capability more than 5,000 kms.
 - 2. It is nuclear-capable ballistic missile.
 - 3. It is an advanced version of Agni-1 missile along with high level of accuracy.

Which of the above statements is/are correct?

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

Solution: c)

Agni P is a new generation advanced variant of Agni class of missiles. It is a canisterised missile with range capability between 1,000 and 2,000 kms

India's Defence Research and Development Organisation (DRDO) successfully flight-tested a new generation nuclear-capable ballistic missile Agni P also known as 'Agni Prime' from Dr APJ Abdul Kalam island off the coast of Odisha. The missile followed textbook trajectory, meeting all mission objectives with the **high level of accuracy.**

It can hit targets up to a range of 2000 kms, and is very short and light in comparison with other missiles in this class.

Source

- 8) Rare earth elements, sometimes seen in news are used in
 - 1. Air pollution control
 - 2. Illuminated screens on electronic devices
 - 3. Defence equipments
 - 4. Space shuttle components

Select the correct answer code:

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

Solution: d)

Rare Earth Elements or Rare Earth Metals are a set of 17 chemical elements in the periodic table — the 15 lanthanides, plus scandium and yttrium, which tend to occur in the same ore deposits as the lanthanides, and have similar chemical properties.

Despite their classification, most of these elements are not really "rare". One of the Rare Earths, promethium, is radioactive.

These elements are important in technologies of consumer electronics, computers and networks, communications, clean energy, advanced transportation, healthcare, **environmental mitigation**, and **national defence**, among others.

Scandium is used in televisions and **fluorescent lamps**, and yttrium is used in drugs to treat rheumatoid arthritis and cancer.

Rare Earth elements are used in **space shuttle components**, jet engine turbines, and drones. Cerium, the most abundant Rare Earth element, is essential to NASA's Space Shuttle Programme. China's Rare Earths deposits account for 80% of identified global reserves.

- 9) Consider the following statements regarding Melamine.
 - 1. Melamine is an organic base chemical rich in nitrogen.
 - 2. It is usually added to increase the taste of the food.
 - 3. It can cause bladder stones in animals.

Which of the above statements is/are correct?

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

Solution: c)

Melamine is an *organic base chemical most commonly found in the form of white crystals rich in nitrogen.* Melamine is widely used in plastics, adhesives, countertops, dishware, whiteboards.

It is added to water adulterated milk to increase the nitrogen content and hence its apparent protein content.

Addition of melamine into food is not approved by the FAO/WHO Codex Alimentarius (food standard commission), or by any national authorities.

Melamine alone causes bladder stones in animal tests. When combined with cyanuric acid, which may also be present in melamine powder, melamine can form crystals that can give rise to kidney stones.

Melamine has also been shown to have carcinogenic effects in animals in certain circumstances.

- 10) Consider the following statements.
 - 1. The Global Malaria Report 2020 is released by World Health Organisation.
 - 2. India shared one third of the total global malaria cases in 2019.
 - 3. Recently China was declared malaria-free.

Which of the above statements is/are correct?

a) 1 only

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

Solution: c)

As per the Global Malaria Report 2020 by the World Health Organization (WHO), in 2019 an estimated 229 million malaria cases and 409,000 deaths in 87 malaria-endemic countries are recorded, with a large concentration of the total malaria burden (94%) in Africa. India shared 2% of the total global malaria cases in 2019.

Since 1900, 127 countries have registered malaria elimination. In 2021, two countries El Salvador on February 25 and China on June 29 were declared malaria-free by the WHO.

Source

- 11) Consider the following statements.
 - 1. India is among the world's 'high malaria burden' countries.
 - 2. India is a signatory to National Framework for Malaria Elimination (NFME) aiming for malaria elimination by 2030.
 - 3. Malaria is included in the National Vector Borne Disease Control Programme.

Which of the above statements is/are correct?

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

Solution: d)

India accounted for 88% of malaria cases and 86% of all malaria deaths in the WHO South-East Asia Region in 2019 and is the **only country outside Africa among the world's 11 `high burden to high impact' countries.**

India is a signatory to National Framework for Malaria Elimination (NFME) 2016-2030 aiming for malaria elimination by 2030. This framework has been outlined with a vision to eliminate the disease from the country which would contribute to improved health with quality of life and poverty alleviation.

The results of each malaria case can be registered in a central dashboard at the **National Vector Borne Disease Control Programme,** as it is done for COVID-19 cases by Indian Council of Medical Research.

Source

- 12) Consider the following statements.
 - 1. Malaria is a viral disease transmitted by the infective bite of Anopheles mosquito.
 - 2. Dengue is transmitted by the infective bite of Aedes Aegypti mosquito.
 - 3. Kala-azar is caused by a protozoan parasite of genus Leishmania.

Which of the above statements is/are correct?

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

Solution: c)

• Malaria is a potentially life threatening parasitic disease caused by parasites known as Plasmodium viviax (P.vivax), Plasmodium falciparum (P.falciparum), Plasmodium malariae (P.malariae) and Plasmodium ovale (P.ovale)

- It is transmitted by the infective bite of Anopheles mosquito.
- Dengue is a viral disease
- It is transmitted by the infective bite of Aedes Aegypti mosquito
- It occurs in two forms: Dengue Fever and Dengue Haemorrhagic Fever (DHF)

Kala-azar is a slow progressing indigenous disease caused by a protozoan parasite of genus Leishmania.

Source

- 13) Consider the following statements.
 - 1. Doppler radars are crucial for gauging the intensity of rainfall and the impact area in real-time.
 - 2. Doppler radars can carryout weather surveillance only upto 50 to 100 Kms radius from its location.
- 3. India's east coast, which is frequently affected by cyclones formed in the Bay of Bengal, has more Doppler radars than West coast.

Which of the above statements is/are correct?

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

Solution: b)

Doppler radars are crucial for gauging the intensity of rainfall and impact area in real-time. It can carry out weather surveillance up to a radius of 450-500 km.

India's east coast, which is frequently affected by cyclones formed in the Bay of Bengal, has radars operational at eight locations — Kolkata, Paradip, Gopalpur, Visakhapatnam, Machilipatanam, Sriharikota, Karaikal and Chennai.

Along the west coast, there are radars at Thiruvananthapuram, Kochi, Goa and Mumbai. Other radars are operating from Srinagar, Patiala, Kufri, Delhi, Mukteshwar, Jaipur, Bhuj, Lucknow, Patna, Mohanbar, Agartala, Sohra, Bhopal, Hyderabad and Nagpur.

Source

- 14) Consider the following statements regarding Doppler radars.
 - 1. Doppler radars forecast weather by using the mechanism of radio waves.
 - 2. They track the movement of weather systems and cloud bands, and thus gauge rainfall over an area.
 - 3. They cannot detect thunderstorms and lightning.

Which of the above statements is/are correct?

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

Solution: a)

How does a Doppler radar work?

- In radars, a beam of energy—called radio waves—is emitted from an antenna. When this beam strikes an object in the atmosphere, the energy scatters in all directions, with some reflecting directly back to the radar.
- The larger the object deflecting the beam, the greater is the amount of energy that the radar receives in return. Observing the time required for the beam to be transmitted and returned to the radar allows weather forecasting departments to "see" raindrops in the atmosphere, and measure their distance from the radar.

• What makes a Doppler radar special is that it can provide information on both the position of targets as well as their movement.

In India, Doppler radars of varying frequencies — S-band, C-band and X-band — are commonly used by the IMD to **track the movement of weather systems and cloud bands**, and gauge rainfall over its coverage area of about 500 km.

An X-band radar is used to detect thunderstorms and lightning whereas C-band guides in cyclone tracking.

As per the US National Weather Service, in an hour, a Doppler radar transmits a signal for only over seven seconds, and spends the remaining 59 minutes and 53 seconds listening to returned signals.

Source

- 15) Consider the following statements regarding Ultraviolet Radiation.
 - 1. Ultraviolet (UV) radiation is naturally emitted by the Sun.
 - 2. The wavelength range of Ultraviolet Radiation is higher than that of visible light.
 - 3. All Ultraviolet Radiations are transmitted through our atmosphere.

Which of the above statements is/are correct?

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

Solution: a)

Ultraviolet (UV) is a type of light or radiation naturally emitted by the Sun. It covers a wavelength range of 100-400 nm. The human visible light ranges from 380–700 nm.

UV is divided into three bands: UV-C (100-280 nm), UV-B (280-315 nm) and UV-A (315-400 nm).

UV-A and UV-B rays from the Sun are transmitted through our atmosphere and all **UV-C** is filtered by the ozone layer.

Source

- 16) Consider the following statements regarding Ultraviolet (UV) radiation.
 - 1. UV-C radiation can be used to disinfect the air and also in water treatment.
- 2. UV-A rays can penetrate the middle layer of human skin and can cause aging of skin cells and damage the cells' DNA.

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)

UV-A rays can penetrate the middle layer of your skin or the dermis and can cause aging of skin cells and indirect damage to cells' DNA. UV-C radiation from man-made sources has been known to cause skin burns and eye injuries.

UV-C radiation (wavelength around 254 nm) has been used for decades to disinfect the air in hospitals, laboratories, and also in water treatment.

Source

- 17) A planetary-mass object is recognised as Dwarf planets if it satisfies which of the following conditions?
 - 1. It must be in direct orbit of the sun.
 - 2. It must be massive enough for it to have become spherical in shape under its own gravity.
 - 3. It must have cleared the neighborhood around its orbit.

Select the correct answer code:

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

Solution: b)

According to the definition adopted by the International Astronomical Union (IAU) in 2006, a dwarf planet is, "a celestial body orbiting a star that is massive enough to be rounded by its own gravity but has not cleared its neighboring region of planetesimals and is not a satellite.

In essence, the term is meant to designate any planetary-mass object that is neither a planet nor a natural satellite that fits two basic criteria. For one, it must be in direct orbit of the sun and not be a moon around another body. Second, it must be massive enough for it to have become spherical in shape under its own gravity. And, unlike a planet, it must have not cleared the neighborhood around its orbit.

Source

- 18) Ceres, Haumea and Eris sometimes seen in news are
 - a) Cryptocurrencies
 - b) Near-Earth asteroids
 - c) Genetically modified organisms
 - d) Recognised Dwarf Planets

Solution: d)

The five best-known dwarf planets are Ceres, Pluto, Makemake, Haumea, and Eris.

- 19) Nauka, a space laboratory was recently launched by
 - a) Japan
 - b) India
 - c) Russia
 - d) China

Solution: c)

Nauka, meaning "science" in Russian, is the biggest space laboratory Russia has launched to date. It was sent into orbit on July 21, and will take eight days to reach the International Space Station.

Source

- 20) Consider the following statements.
- 1. A space station is essentially a large spacecraft that remains in low-earth orbit for extended periods of time.
- 2. International Space Station is a collaborative effort between five space agencies from United States, Russia, Japan, Europe and China.

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

For over 20 years since its launch, humans have continuously lived and carried out scientific investigations on the ISS under microgravity conditions, being able to make breakthroughs in research not possible on Earth.

The ISS is a pathbreaking collaborative effort between five participating space agencies: NASA (United States), Roscosmos (Russia), JAXA (Japan), ESA (Europe) and CSA (Canada).

Source

5. International Relations and Organisations

- 1) Consider the following statements.
- 1. Chemical Weapons Convention (CWC) is an arms control treaty administered by the Organisation for the Prohibition of Chemical Weapons (OPCW).
- 2. Biological and Toxin Weapons Convention (BTWC) is not administered by any body or organisation. 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)

Of the three types of 'weapon of mass destruction' (WMD), nuclear weapons have received the maximum safety and security attention given the treaty and institutional arrangements associated with it. Chemical weapons come next. There is an international convention and an implementing body. However, when it comes to bio-weapons, all we have is the Biological and Toxin Weapons Convention (BTWC) of 1972 with no implementing body. The BTWC does not have a verification clause, nor does it have clearly laid down rules and procedures to guide research in this field.

The Chemical Weapons Convention (CWC), officially the Convention on the Prohibition of the Development, Production, Stockpiling and Use of Chemical Weapons and on their Destruction, is an arms control treaty administered by the Organisation for the Prohibition of Chemical Weapons (OPCW).

Source

- 2) Consider the following statements regarding Indian Ocean Commission (IOC).
- 1. IOC is the only island driven organisation in the Indian Ocean bringing together the African islands of Comoros, Madagascar, Seychelles and Mauritius.
 - 2. India and United Nations are observers of the IOC.

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)

IOC is the only island driven organisation in the Indian Ocean bringing together the African islands of Comoros, Madagascar, Seychelles and Mauritius, also known as the "Vanilla islands".

There are also seven **observers**: China, the European Union, the Organisation internationale de la Francophonie, the Sovereign Order of Malta, **India**, Japan **and the United Nations**.

- 3) Juneteenth is the oldest nationally celebrated commemoration of the ending of slavery in
 - a) United Kingdom
 - b) India
 - c) United States
 - d) South Africa

Solution: c)

President Biden signed legislation to make **Juneteenth** a federal holiday, enshrining June 19 as the national day to commemorate the **end of slavery in the United States.**

Source

- 4) Consider the following statements regarding Treaty on the Prohibition of Nuclear Weapons.
- 1. It is the first legally binding international agreement to comprehensively prohibit nuclear weapons with the ultimate goal being their total elimination.
- 2. For those nations that are party to it, the treaty prohibits the development, testing, production, stockpiling, transfer, and use of nuclear weapons.
 - 3. More than half of the nuclear weapons nations have signed the treaty.

Which of the above statements is/are incorrect?

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

Solution: d)

The Treaty on the Prohibition of Nuclear Weapons (TPNW), or the Nuclear Weapon Ban Treaty, is the first legally binding international agreement to comprehensively prohibit nuclear weapons with the ultimate goal being their total elimination. It was adopted on 7 July 2017, opened for signature on 20 September 2017, and entered into force on 22 January 2021.

For those nations that are party to it, the **treaty prohibits the development, testing, production, stockpiling, stationing, transfer, use and threat of use of nuclear weapons**, as well as assistance and encouragement to the prohibited activities. For nuclear armed states joining the treaty, it provides for a time-bound framework for negotiations leading to the verified and irreversible elimination of its nuclear weapons programme.

69 nations did not vote, among them all of the nuclear weapon states and all NATO members except the Netherlands.

- 5) Istanbul Convention, sometimes seen in news is regarding
 - a) Protection of Ozone layer
 - b) Protecting Cultural and natural heritage
 - c) Criminalising acts of financing of terrorism
 - d) Preventing Violence Against Women

Solution: d)

The Council of Europe established the **Istanbul Convention**, a human rights treaty, with the aim to prevent and prosecute all forms of violence against women, promote gender equality and ensure protection and rehabilitation of women who are victims of violence.

Source

- 6) Sustainable Development Goals (SDG) India Index evaluates progress of states and Union Territories (UTs) on which of the following parameters?
 - 1. Gender
 - 2. Education
 - 3. Economic growth
 - 4. Climate change

Select the correct answer code:

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

Solution: d)

The modular nature of the index has become a policy tool and a ready reckoner for gauging progress of States and UTs on the expansive nature of the Goals, including **health**, **education**, **gender**, **economic growth**, **institutions**, **climate change and environment**.

Source

- 7) Rotterdam Convention, often seen in news, is related to
 - a) Prohibition of the usage of biological weapons by the member countries
- b) Promote shared responsibility among State Parties in the international trade of certain hazardous chemicals
 - c) Prevention of the proliferation of ballistic missiles
 - d) None of the above

Solution: b)

Rotterdam Convention on Prior Informed Consent Procedures (PIC) that entered into force on 24th February, 2004, is a legally binding instrument, which was adopted on 10th September 1998 by a Conference of Plenipotentiaries in Rotterdam. India acceded to the Convention on 24.05.2006.

The Convention seeks to promote shared responsibility and cooperative efforts among State Parties in the international trade of certain hazardous chemicals in order to protect human health and the environment from potential harm.

Each Party is required to designate a National Authority for performing the administrative functions required under the Convention. **Department of Chemicals and Petrochemicals is the Designated National Authority (DNA) for industrial chemicals and Department of Agriculture and Co-operation is the DNA for pesticides.**

<u>Source</u>

- 8) Currently India has Border Haats along the borders of which of the following countries?
 - 1. Bangladesh
 - 2. Bhutan
 - 3. Myanmar

Select the correct answer code:

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

Solution: a)

India-Bangladesh Border Haat is a border trade market between Bangladesh and India. Currently, four border haats are operational along the India-Bangladesh border. Two border haats are located in Meghalaya at Kalaichar and Balat and two are located in Tripura at Srinagar and Kamalasagar.

There are no border haats in operation along the Bhutan and Myanmar borders.

- 9) Consider the following statements regarding South Asian Association for Regional Cooperation (SAARC).
 - 1. SAARC maintains permanent diplomatic relations at the United Nations as an observer.
 - 2. Its secretariat is based in Dhaka, Bangladesh.
 - 3. Afghanistan is the last country to become the member of SAARC.

Which of the above statements is/are correct?

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

Solution: c)

What is SAARC? When was it established?

- The South Asian Association for Regional Cooperation (SAARC) was established with the signing of the **SAARC Charter** in Dhaka on 8 December 1985.
- The **Secretariat** of the Association was set up in **Kathmandu** on 17 January 1987.
- **SAARC comprises of eight Member States:** Afghanistan, Bangladesh, Bhutan, India, Maldives, Nepal, Pakistan and Sri Lanka.
- SAARC maintains **permanent diplomatic relations at the United Nations** as an observer and has developed links with multilateral entities, including the European Union.

Afghanistan became the member of SAARC at the 13th annual summit in 2005.

- 10) Consider the following statements regarding United Nations General Assembly (UNGA).
 - 1. UNGA is the only deliberative, policy-making, and representative organ of the UN.
 - 2. UNGA is responsible for appointing the non-permanent members to the UN Security Council.
 - 3. The UNGA is the only UN organ wherein all member states have equal representation.

Which of the above statements is/are correct?

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

Solution: c)

- The United Nations General Assembly (UNGA) is one of the six principal organs of the United Nations (UN), serving as the main deliberative, policy-making, and representative organ of the UN.
- The UNGA is responsible for the UN budget, appointing the non-permanent members to the Security Council, appointing the Secretary-General of the United Nations, receiving reports from other parts of the UN system, and making recommendations through resolutions.
- It also establishes numerous subsidiary organs to advance or assist in its broad mandate.
- The UNGA is the only UN organ wherein all member states have equal representation.

- 11) India and South Africa are both members to which of the following organisations / grouping?
 - 1. G20
 - 2. Indian Ocean Rim Association
 - 3. BRICS
 - 4. IBSA

Select the correct answer code:

- a) 3.4
- b) 2, 3, 4
- c) 1, 3, 4
- d) 1, 2, 3, 4

Solution: d)

India and South Africa give an institutional framework through forums such as the G20, the Indian Ocean Rim Association, BRICS and IBSA.

- 12) Consider the following statements.
- 1. India has been allotted space in the Central Indian Ocean Basin (CIOB) by the United Nations Convention on the Law of the Sea for exploitation of polymetallic nodules (PMN).
- 2. Polymetallic nodules are rocks scattered on the seabed containing iron, manganese, nickel and cobalt. 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 has been allotted a site of 75,000 square kilometres in the Central Indian Ocean Basin (CIOB) by the **UN**International Sea Bed Authority for exploitation of polymetallic nodules (PMN). These are rocks scattered on the seabed containing iron, manganese, nickel and cobalt.

Source

- 13) Consider the following statements regarding Stockholm Convention.
- 1. The Stockholm Convention, is a global treaty to protect human health and environment from Persistent Organic Pollutants (POPs).
 - 2. The Stockholm Convention seeks the elimination of production and use of intentionally produced POPs.
 - 3. Under the Convention, India has completely banned the use of DDT.

Which of the above statements is/are correct?

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

Solution: a)

The Stockholm Convention, ratified by India on 13.01.2006, is a **global treaty to protect human health and environment from Persistent Organic Pollutants (POPs).** POPs are chemicals that remain intact in the environment for long periods, become widely distributed geographically, accumulate in the fatty tissue of living organisms and are toxic to human beings and wildlife. POPs travel globally and can cause damage wherever they travel. The Convention that entered into force of 17th May, 2004, lays down that in its implementation, Governments will take measures to eliminate or reduce the release of POPs into the environment.

The Stockholm Convention seeks the elimination or restriction of production and use of all intentionally produced POPs (industrial chemicals and pesticides). The Convention also seeks the continuing minimization and wherever feasible, ultimate elimination of the releases of unintentionally produced POPs such as dioxins and furans. The use of DDT is restricted in India. Use of DDT is banned for agricultural purposes; it is produced in a restricted manner for use in vector control only, as India has obtained exemption for use of DDT for vector control.

A Global Environment Facility (GEF) has been set up as an interim financial mechanism, to assist the developing countries in implementation of the Convention.

Source

- 14) Consider the following statements regarding Universal Periodic Review (UPR).
- 1. Universal Periodic Review (UPR) involves a review of the human rights records of all UN Member States.
 - 2. It is a State-driven process, under the auspices of the Human Rights Council.
 - 3. It address human rights violations wherever they occur.

Which of the above statements is/are correct?

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

Solution: d)

The Universal Periodic Review (UPR) is a unique process which involves a review of the human rights records of all UN Member States. The UPR is a State-driven process, under the auspices of the Human Rights Council, which provides the opportunity for each State to declare what actions they have taken to improve the human rights situations in their countries and to fulfil their human rights obligations.

As one of the main features of the Council, the **UPR** is designed to ensure equal treatment for every country when their human rights situations are assessed. The ultimate aim of this mechanism is to improve the human rights situation in all countries and address human rights violations wherever they occur. Currently, no other universal mechanism of this kind exists.

Source

- 15) Which of the following countries are members of BIMSTEC?
 - 1. Bhutan
 - 2. Nepal
 - 3. Thailand
 - 4. Sri Lanka
 - 5. Cambodia

Select the correct answer code:

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

Solution: b)

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

It comprises of seven member countries: five deriving from South Asia — including Bangladesh, Bhutan, India, Nepal, Sri Lanka — and two from Southeast Asia, including Myanmar and Thailand.

- 16) Consider the following statements regarding Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation (BIMSTEC).
 - 1. BIMSTEC is a sector-driven cooperative organization.
- 2. The main objective of BIMSTEC is having technological and economic cooperation among South Asian and Southeast Asian countries along the coast of the Bay of Bengal.
 - 3. Till now, India has hosted the BIMSTEC Summit only once.

Which of the above statements is/are correct?

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

Solution: d)

BIMSTEC is a sector-driven cooperative organization. Technological and economic cooperation among South Asian and Southeast Asian countries along the coast of the Bay of Bengal is its main objective.

India hosted the 2nd BIMSTEC summit in 2008. Fourth BIMSTEC summit was held in Nepal in 2018.

- 17) Consider the following statements regarding Indo-Taiwan relations.
 - 1. India and Taiwan do not have formal diplomatic ties.
 - 2. India has endorsed the "one-China" policy.

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)

China has claimed Taiwan through its **"one China" policy** since the Chinese civil war forced the defeated Kuomintang, or Nationalist, to flee to the island in 1949 and has vowed to bring it under Beijing's rule, by force if necessary.

Indo- Taiwan relations:

- Although they do not have formal diplomatic ties, Taiwan and India have been cooperating in various fields.
- India has refused to endorse the "one-China" policy since 2010.
- 18) Consider the following statements regarding BASIC countries.
 - 1. BASIC countries are group of four countries consisting of Brazil, South Africa, India and China.
 - 2. BASIC countries work together to fight climate change and carry out negotiations within the UNFCCC.

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 BASIC group was formed as the result of an agreement signed by the four countries on November 28, 2009. They are a bloc of four large newly industrialized countries – **Brazil, South Africa, India and China.**

Significance of the grouping:

- Objectives: The signatory nations have a **broadly common position on reducing greenhouse gas emissions** and raising the massive funds that are needed to fight climate change.
- The BASIC countries constituted one of the parties in the Copenhagen Accord reached with the US-led grouping; the Accord, was, however, not legally binding.
- BASIC is one of several groups of nations working together to fight climate change and carry out negotiations within the UNFCCC.
- 19) Consider the following statements regarding International Court of Justice (ICJ).
 - 1. In order to ensure a degree of continuity, one fourth of the Court is elected every three years.
- 2. 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.
- 3. Member of the Court can be dismissed in the unanimous opinion of the other Members. Which of the above statements is/are correct?
 - a) 1, 2
 - b) 1, 3
 - c) 2, 3
 - d) 1, 2, 3

Solution: c)

In order to ensure a degree of continuity, one third of the Court is elected every three years.

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.

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.

Source

- 20) Consider the following statements regarding 1967 Outer Space Treaty.
 - 1. The treaty forbids countries from deploying "nuclear weapons" in outer space.
 - 2. The treaty prohibit the launching of ballistic missiles through space.
 - 3. According to the treaty, no nation may claim sovereignty of outer space or any celestial body.

Which of the above statements is/are correct?

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

Solution: c)

Among the Outer Space Treaty's main points are that it prohibits the placing of nuclear weapons in space, limits the use of the Moon and all other celestial bodies to peaceful purposes only, and establishes that space shall be free for exploration and use by all nations, but that no nation may claim sovereignty of outer space or any celestial body.

The treaty, however, does not prohibit the launching of ballistic missiles, which could be armed with WMD warheads, through space. The treaty repeatedly emphasizes that space is to be used for peaceful purposes.

Source Source

21) Consider the following statements regarding International Campaign to Abolish Nuclear Weapons (ICAN).

- 1. It is a specialized agency of the United Nations advocating for a strong and effective nuclear weapon ban treaty.
- 2. It received Nobel Peace Prize for its work to draw attention to the catastrophic humanitarian consequences of the use of nuclear weapons.
 - 3. India is not a member of ICAN.

Which of the above statements is/are correct?

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

Solution: c)

The International Campaign to Abolish Nuclear Weapons is a global civil society coalition working to promote adherence to and full implementation of the Treaty on the Prohibition of Nuclear Weapons. The campaign helped bring about this treaty.

The campaign received the **2017 Nobel Peace Prize** "for its work to draw attention to the catastrophic humanitarian consequences of any use of nuclear weapons and for its ground-breaking efforts to achieve a treaty-based prohibition of such weapons."

India is not a member of ICAN.

Source

- 22) Consider the following statements regarding Indian Ocean Rim Association (IORA).
- 1. Indian Ocean Rim Association (IORA) is tripartite in nature, bringing together representatives of Government, Business and Academia, for promoting co-operation and closer interaction among them.
 - 2. It is based on the principles of Open Regionalism for strengthening Economic Cooperation.
 - 3. The Coordinating Secretariat of IORA is located in India.

Which of the above statements is/are correct?

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

Solution: b)

The Indian Ocean Rim Association was set up with the objective of strengthening regional cooperation and sustainable development within the Indian Ocean Region.

The IORA is a regional forum, tripartite in nature, bringing together representatives of Government, Business and Academia, for promoting co-operation and closer interaction among them.

It is **based on the principles of Open Regionalism for strengthening Economic Cooperation** particularly on Trade Facilitation and Investment, Promotion as well as Social Development of the region.

The Coordinating Secretariat of IORA is located at Ebene, Mauritius

- 23) Consider the following statements regarding Global Alliance for Vaccines and Immunisation (GAVI).
 - 1. GAVI is an international organisation working towards creating equal access to new and underused vaccines for children living in the world's poorest countries.
 - 2. GAVI has observer status at the World Health Assembly.

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)

Created in 2000, Gavi is an international organisation – a global Vaccine Alliance, bringing together **public and private sectors** with the shared goal of **creating equal access to new and underused vaccines for children living in the world's poorest countries.**

GAVI has observer status at the World Health Assembly.

Gavi brings together developing country and donor governments, the World Health Organization, UNICEF, the World Bank, the vaccine industry in both industrialised and developing countries, research and technical agencies, civil society, the Bill & Melinda Gates Foundation and other private philanthropists.

- 24) kafala system sometimes seen in news is related to
 - a) Improved weather, climate and ocean forecast and services
 - b) IAEA safeguards to deter the spread of nuclear weapons
 - c) Standardised system of laws that apply to all Central Asian Countries
 - d) Monitor migrant laborers working in Gulf countries

Solution: d)

The 'kafala' system is a system that lays down obligations in the treatment and protection of foreign 'guests'. Kafala means 'to guarantee' or 'to take care of' in Arabic.

- Under the system, a migrant worker's immigration status is legally bound to an individual employer or sponsor ('kafeel') during the contract period.
- The migrant worker cannot enter the country, transfer employment nor leave the country for any reason without first obtaining explicit written permission from the kafeel.
- 25) Consider the following statements.
 - 1. ASEAN is an official United Nations observer.
 - 2. Not all members of ASEAN are part of Regional Comprehensive Economic Partnership (RCEP).
 - 3. India is part of ASEAN Plus Three forum.

Which of the above statements is/are correct?

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

Solution: a)

- The Association of Southeast Asian Nations (more commonly known as ASEAN) is a political and economic organization which promotes intergovernmental cooperation and facilitates economic, political, security, military, educational, and sociocultural integration among its members and other countries in Asia.
- There are currently 10 member states: Indonesia, Malaysia, Philippines, Singapore, Thailand, Brunei, Laos, Myanmar, Cambodia and Vietnam.
- The Regional Comprehensive Economic Partnership (RCEP) is a free trade agreement in the Asia-Pacific region between the ten member states of the Association of Southeast Asian Nations (ASEAN) and five of ASEAN's FTA partners Australia, China, Japan, New Zealand, and South Korea.
- ASEAN is an official United Nations observer, as well as an active global partner.
- A major partner of Shanghai Cooperation Organisation, ASEAN maintains a global network of alliances and dialogue partners.

- **ASEAN Plus Three forum includes China, South Korea and Japan.** The group became ASEAN Plus Six with Australia, New Zealand, and India.
- 26) Consider the following statements.
 - 1. India is not a signatory to the United Nations Refugee Convention of 1951.
- 2. Universal Declaration of Human Rights recognizes the right of persons to seek asylum from persecution in other countries.
 - 3. In India both Central and State Governments can grant "refugee status to any foreigner".

Which of the above statements is/are correct?

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

Solution: b)

The State governments has no powers to grant "refugee status to any foreigner" and India is not a signatory to the United Nations Refugee Convention of 1951 and its 1967 Protocol.

About the Refugee Convention 1951:

- It is a United Nations multilateral treaty that defines who is a refugee, and sets out the rights of individuals who are granted asylum and the responsibilities of nations that grant asylum.
- The Convention also sets out which people do not qualify as refugees, such as war criminals. The Convention also provides for some visa-free travel for holders of travel documents issued under the convention.
- The Convention builds on **Article 14 of the 1948 Universal Declaration of Human Rights, which recognizes the right of persons to seek asylum from persecution in other countries.** A refugee may enjoy rights and benefits in a state in addition to those provided for in the Convention
- 27) Which of the following are the functions of Asia-Pacific Economic Cooperation (APEC)?
- 1. APEC projects provide digital skills training for rural communities and help indigenous women export their products abroad.
 - 2. Increase energy efficiency and promote sustainable management of forest and marine resources.
 - 3. Ensuring disaster resilience and addressing terrorism.

Select the correct answer code:

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

Solution: d)

APEC:

It is a regional economic forum established in 1989 to leverage the growing interdependence of the Asia-Pacific. Aim: to create greater prosperity for the people of the region by promoting balanced, inclusive, sustainable, innovative and secure growth and by accelerating regional economic integration.

Functions:

- 1. APEC works to help all residents of the Asia-Pacific participate in the growing economy. APEC projects provide digital skills training for rural communities and help indigenous women export their products abroad.
- 2. Recognizing the impacts of climate change, APEC members also implement initiatives to increase energy efficiency and promote sustainable management of forest and marine resources.
- 3. The forum adapts to allow members to deal with important new challenges to the region's economic well-being. This includes ensuring disaster resilience, planning for pandemics, and addressing terrorism.
- 28) Consider the following statements regarding Singapore Convention on Mediation.

- 1. It is the first UN treaty to be named after Singapore.
- 2. The Convention will apply to international settlement agreements that are concluded in the course of judicial proceedings and which are enforceable as a court judgment.

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)

United Nations Convention on International Settlement Agreements Resulting from Mediation:

The **United Nations General Assembly** adopted the Convention on 20th December 2018 and it was **opened for signature on 7th August 2019 in Singapore.**

It is also known as the Singapore Convention on Mediation and also the first UN treaty to be named after Singapore.

Key Features of the Convention:

- **Applicability**: The Convention will apply to international commercial settlement agreements resulting from mediation.
- Non- applicability: It will not apply to international settlement agreements that are concluded in the course of judicial or arbitral proceedings and which are enforceable as a court judgment or arbitral award. It will also not apply to settlement agreements concluded for personal, family or household purposes by one of the parties (a consumer), as well as settlement agreements relating to family, inheritance or employment law.
- 29) Consider the following statements regarding Partners in Population and Development (PPD).
- 1. It is international NGO promoting south-south cooperation in the fields of population, and development.
- 2. It stresses the need to establish mechanisms to promote development through the sharing of experiences in reproductive health (RH) and family planning (FP).

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)

Partners in Population and Development (PPD):

- It is an intergovernmental organisation for promoting south-south cooperation in the fields of reproductive health, population, and development.
- Its Secretariat is located in Dhaka, Bangladesh.
- Currently, PPD has the membership of 26 developing countries, representing more than 59% of the world's population.
- Launched at the 1994 International Conference on Population and Development (ICPD), when ten developing countries from Asia, Africa and Latin America formed an intergovernmental alliance to help implement the Cairo Program of Action (POA).
- This POA, endorsed by 179 nations, stresses the need to establish mechanisms to **promote development** through the sharing of experiences in reproductive health (RH) and family planning (FP) within and among countries and to promote effective partnerships among the governments, NGOs, research institutions and the private sector.
- 30) Consider the following statements regarding Open Skies Treaty.

- 1. The treaty was signed between NATO members and former Warsaw Pact countries following the demise of the Soviet Union.
 - 2. It allows members to fly unarmed reconnaissance flights over any part of their fellow member states.
- 3. Under the treaty, a member state can "spy" on any part of the other member nation, without the latter's consent.

Which of the above statements is/are correct?

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

Solution: b)

What is the Open Skies Treaty?

It is an accord between over 30 countries that allows participants to fly unarmed reconnaissance flights over any part of their fellow member states.

- First **proposed in 1955** by former US President Dwight Eisenhower as a means to deescalate tensions during the Cold War, the landmark treaty was eventually signed in 1992 between NATO members and former **Warsaw Pact countries** following the demise of the Soviet Union.
- It went into **effect in 2002** and had signatories, including key players US and Russia, along with one non-ratifying member (Kyrgyzstan).

Features of the treaty:

- 1. Under the treaty, a member state can "spy" on any part of the host nation, with the latter's consent.
- 2. A country can undertake aerial imaging over the host state after giving notice 72 hours before, and sharing its exact flight path 24 hours before.
- 3. The information gathered, such as on troop movements, military exercises and missile deployments, has to be shared with all member states.
- 4. Only approved imaging equipment is permitted on the surveillance flights, and officials from the host state can also stay on board throughout the planned journey.
- 31) Consider the following statements regarding Coalition for Disaster Resilient Infrastructure (CDRI).
- 1. It is an international coalition of countries, United Nations (UN) agencies, multilateral development banks, the private sector, and academic institutions.
 - 2. It was launched by United Nations Office for Disaster Risk Reduction (UNDRR).
- 3. It is a platform where knowledge is generated and exchanged on different aspects of disaster and climate resilience of infrastructure.

Which of the above statements is/are correct?

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

Solution: c)

Coalition for Disaster Resilient Infrastructure (CDRI):

- Launched by Prime Minister Narendra Modi in September 2019 at the UN Secretary-General's Climate Action Summit in New York, US.
- A platform where knowledge is generated and exchanged on different aspects of disaster and climate resilience of infrastructure.
- It will create a mechanism to assist countries to upgrade their capacities and practices, with regard to infrastructure development in accordance with their risk context and economic needs.
- 32) Consider the following statements regarding UNESCO World Heritage sites.
 - 1. The main criterion for nomination is that the site must have outstanding universal value.

- 2. The International Council on Monuments and Sites (ICOMOS) is responsible for recommending cultural and natural sites.
- 3. UNESCO World Heritage Committee determine whether or not to inscribe each nominated property on the World Heritage List.

Which of the above statements is/are correct?

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

Solution: d)

Criteria for World Heritage sites

The main criterion for nomination is that the site must have outstanding universal value. The countries themselves apply and this application is then evaluated. The International Council on Monuments and Sites (ICOMOS) is responsible for recommending cultural sites and the World Conservation Union (IUCN) selects natural sites.

The two councils make their recommendations. **The UNESCO World Heritage Committee**, which is made up of representatives from 21 of the States Parties to the convention, then has the **final word**.

Source

- 33) Consider the following statements regarding One Health Global Leaders Group on Antimicrobial Resistance.
- 1. One Health Global Leaders Group on Antimicrobial Resistance was launched by the Food and Agriculture Organization (FAO).
- 2. It seeks to catalyze global attention and action to preserve antimicrobial medicines and avert the disastrous consequences of antimicrobial resistance.
- 3. The group must provide regular reports on the science and evidence related to antimicrobial resistance to the UN member states.

Which of the above statements is/are correct?

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

Solution: d)

One Health Global Leaders Group on Antimicrobial Resistance:

Launched by the Food and Agriculture Organization (FAO), World Organisation for Animal Health (OIE) and the World Health Organization (WHO).

Composition:

- This 20-member group comprises heads of states, current and former ministers of different countries, leaders from the private sector and civil society.
- It is co-chaired by the prime ministers of Barbados and Bangladesh, Mia Mottley and Sheikh Hasina Wazed, respectively.
- The heads of FAO, OIE and WHO are ex-officio members of the group.

Why was it created?

It seeks to catalyze global attention and action to preserve antimicrobial medicines and avert the disastrous consequences of antimicrobial resistance.

The group has to:

- 1. Monitor the global response to antimicrobial resistance.
- 2. Maintain public momentum.

- 3. Provide regular reports on the science and evidence related to AMR to the UN member states.
- 4. Advocate for the inclusion of AMR 'lens' in investments on agriculture, health, development, food and feed production.
- 5. Push for multi-stakeholder engagement on the issue.

Source

- 34) Consider the following statements regarding New START (Strategic Arms Reduction Treaty).
 - 1. It is a global nuclear arms reduction treaty.
 - 2. The treaty calls for halving the number of strategic nuclear missile launchers.
 - 3. It does not limit the number of operationally inactive nuclear warheads that can be stockpiled.

Which of the above statements is/are correct?

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

Solution: b)

About the New START treaty:

• It is a **nuclear arms reduction treaty between the United States and the Russian Federation** with the formal name of Measures for the Further Reduction and Limitation of Strategic Offensive Arms.

Under terms of the treaty:

- 1. Number of strategic nuclear missile launchers will be reduced by half.
- 2. A new inspection and verification regime will be established, replacing the SORT mechanism.
- 3. The number of deployed strategic nuclear warheads is limited to 1,550.
- 4. Number of deployed and non-deployed inter-continental ballistic missile (ICBM) launchers, submarine-launched ballistic missile (SLBM) launchers, and heavy bombers equipped for nuclear armaments to 800 will be limited.

It does not limit the number of operationally inactive nuclear warheads that can be stockpiled, a number in the high thousands.

- 35) Sendai Framework is related to
 - a) Banning of chemical weapons
 - b) Regulate international trade in conventional weapons
 - c) Limiting the spread of nuclear weapons
 - d) None of the above

Solution: d)

The **Sendai Framework for Disaster Risk Reduction (2015–2030)** is an international document that was adopted by the United Nations member states between 14 and 18 March 2015 at the World Conference on Disaster Risk Reduction held in Sendai, Japan.

- 36) Consider the following statements regarding UN arms trade treaty.
 - 1. It is a multilateral treaty that regulates the international trade in conventional weapons.
- 2. The treaty calls for the international sale of weapons to be linked to the human rights records of buyers.
 - 3. The treaty regulate the domestic sale or use of weapons in any country.

Which of the above statements is/are correct?

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

d) 1, 2, 3

Solution: b)

The Arms Trade Treaty (ATT) is a multilateral treaty that regulates the international trade in conventional weapons.

The treaty calls for the international sale of weapons to be linked to the human rights records of buyers.

What types of conventional weapons deals does the Arms Trade Treaty seek to regulate?

- Conventional weapons covered by the UN Arms Trade Treaty include tanks and other armored combat vehicles, artillery, attack helicopters, naval warships, missiles and missile launchers, and small arms.
- It also establishes common international standards for the regulation of the international trade in ammunition, weapons parts, and arms components.
- The treaty does not regulate the domestic sale or use of weapons in any country. It also recognizes the legitimacy of the arms trade to enable states to provide for their own security.
- 37) Consider the following statements regarding Good Laboratory Practice (GLP) Working Group of Organisation for Economic Co-operation and Development (OECD).
- 1. Good Laboratory Practice (GLP) is a quality system, evolved by OECD to ensure that safety data generated on various chemicals like industrial chemicals and pharmaceuticals can be relied upon by regulatory authorities.
- 2. India has been designated the 'Vice-Chair' of Good Laboratory Practice (GLP) Working Group of the OECD.

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 has been designated the 'Vice-Chair' of Good Laboratory Practice (GLP) Working Group of the Organisation for Economic Co-operation and Development (OECD).

Good Laboratory Practice (GLP) is a quality system, which has been evolved by Organisation for Economic Cooperation and Development (OECD) to ensure that safety data generated on various chemicals like industrial chemicals, pharmaceuticals (Human and Veterinary), agrochemicals, cosmetic products, food/ feed additives, and medical devices, etc., can be relied upon by regulatory authorities.

The Department of Science and Technology (DST), Government of India, established the National GLP Compliance Monitoring Authority (NGCMA) with the approval of the Union Cabinet on April 24, 2002.

NGCMA is the National body which grants GLP certification to test facilities (TFs) conducting safety studies on new chemicals of the above-mentioned categories in accordance with OECD Principles of GLP and OECD Council norms.

- 38) Consider the following statements regarding Non-Proliferation Treaty (NPT).
 - 1. The NPT is a multilateral treaty aimed at limiting the spread of nuclear weapons.
 - 2. Both India and Pakistan have not signed the treaty.
- 3. The Treaty does not affect the right of state parties to develop, produce, and use nuclear energy for peaceful purposes.

Which of the above statements is/are correct?

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

d) 1, 2, 3

Solution: d)

Non-Proliferation Treaty (NPT)

- The NPT is a multilateral treaty aimed at limiting the spread of nuclear weapons including three elements: (1) non-proliferation, (2) disarmament, and (3) peaceful use of nuclear energy.
- These elements constitute a "grand bargain" between the five nuclear weapon states and the non-nuclear weapon states.
- The treaty was signed in 1968 and entered into force in 1970. As of August 2016, 191 states have adhered to the treaty.
- Though **North Korea**, acceded in 1985 but never came into compliance, announced its withdrawal from the NPT in 2003. Four states—**India**, **Israel**, **Pakistan**, **and South Sudan**—have never signed the treaty.

Key provisions:

- The Treaty defines nuclear weapon states (NWS) as those that had manufactured and detonated a nuclear explosive device prior to 1 January 1967. All the other states are therefore considered non-nuclear weapon states (NNWS).
- The five nuclear weapon states are China, France, Russia, the United Kingdom, and the United States.
- The Treaty does not affect the right of state parties to develop, produce, and use nuclear energy for peaceful purposes.

6. Polity

- 1) The judges recuse themselves from hearing cases in which of the following instances
 - 1. When a judge holds shares in a company that is a litigant.
 - 2. When a judge is having personal association with a party involved in the case.
- 3. When an appeal is filed in the Supreme Court against a judgement of a High Court that may have been delivered by the Supreme Court judge when he/she was in the High Court.
 Select the correct answer code:
 - a) 1, 2
 - b) 1, 3
 - c) 2, 3
 - d) 1, 2, 3

Solution: d)

When there is a conflict of interest, a judge can withdraw from hearing a case to prevent creating a perception that she carried a bias while deciding the case. The conflict of interest can be in many ways — from holding shares in a company that is a litigant to having a prior or personal association with a party involved in the case. The practice stems from the cardinal principle of due process of law that nobody can be a judge in her own case. Any interest or conflict of interest would be a ground to withdraw from a case since a judge has a duty to act fair. Another instance for recusal is when an appeal is filed in the Supreme Court against a judgement of a High Court that may have been delivered by the SC judge when she was in the HC.

Source

2) Match the following:

Union Territory

- A. Puducherry
- B. Andaman and Nicobar Islands

High Court

- 1. Kerala High Court
- 2. Bombay High Court

- C. Lakshadweep
- D. Dadra and Nagar Haveli and Daman and Diu
- 3. Madras High Court
- 4. Calcutta High Court
- 5. Guwahati High Court

- ABCD
- a) 3 4 1 2
- b) 1342
- c) 1534
- d) 1532

Solution: a)

- 3) Consider the following statements regarding the functions of Chief of Defence Staff (CDS).
 - 1. CDS heads the Department of Military Affairs.
 - 2. It commands organisations related to cyber and space.
 - 3. Function as the Military Advisor to the Nuclear Command Authority.
 - 4. CDS does not come under the Right to Information Act.

Which of the above statements is/are correct?

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

Solution: d)

As the Permanent Chairman of Chiefs of Staff Committee, CDS will perform the following functions:

- Implementing weapons procurement procedures.
- Integrating operations of the Army, Air Force and Navy.
- Bring about jointness and ensure optimal utilisation of infrastructure in the three Services.
- Apart from being the military advisor for the government, the CDS also heads the Department of Military Affairs.
- Authority to create theatre commands as and when needed.
- Command tri-service agencies, organisations, and commands including those related to cyber and space.
- CDS will be member of Defence Acquisition Council and Defence Planning Committee
- Function as the Military Advisor to the Nuclear Command Authority.
- Bring about reforms in the functioning of three services aimed at augmenting combat capabilities of the Armed Forces by reducing wasteful expenditure.
- Assign inter-services prioritisation to capital acquisition proposals.

The CDS's salary and perquisites will be same as the service chiefs. **The CDS will come under the Right to Information Act.**

- 4) Consider the following statements regarding Electoral Bonds.
 - 1. Electoral Bonds have a maximum limit of Rs. 1 crore.
- 2. These Bonds can be purchased by a person who is a citizen of India or incorporated or established in India.
 - 3. These Bonds cannot be purchased only when the Model Code of Conduct is into effect.

Which of the above statements is/are correct?

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

Solution: b)

Electoral Bond is a financial instrument for making donations to political parties.

State Bank of India is authorised to issue and encash these bonds, which are valid for fifteen days from the date of issuance.

These bonds are redeemable in the designated account of a registered political party. The bonds are issued in multiples of Rs. 1,000, Rs. 10,000, Rs. 1 lakh, Rs. 10 lakh and Rs. 1 crore without any maximum limit.

The bonds are available for purchase by any person (who is a citizen of India or incorporated or established in India) for a period of ten days each in the months of January, April, July and October as may be specified by the Central Government.

- 5) Consider the following statements.
- 1. The right to freedom of expression is recognized as a human right under Universal Declaration of Human Rights (UDHR).
- 2. The Constitution of India imposes reasonable restrictions upon the freedom of speech and expression in the interest of sovereignty and integrity 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: c)

The **right to freedom of expression** is recognized as a **human right** under **article 19 of the Universal Declaration of Human Rights (UDHR)** and recognized in international human rights law in the International Covenant on Civil and Political Rights (ICCPR).

Under Indian law, the freedom of speech and of the press do not confer an absolute right to express one's thoughts freely. Clause (2) of Article 19 of the Indian constitution enables the legislature to impose certain restrictions on free speech in the interest of sovereignty and integrity of India.

- 6) Under Article 19(2) of the Indian constitution, the legislature can impose certain restrictions on free speech in the interests of
 - 1. Security of the State
 - 2. Friendly relations with foreign States
 - 3. Contempt of court
 - 4. Incitement to an offence

Select the correct answer code:

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

Solution: d)

Under Indian law, the freedom of speech and of the press do not confer an absolute right to express one's thoughts freely. Clause (2) of Article 19 of the Indian constitution enables the legislature to impose certain restrictions on free speech under following heads:

- I. security of the State,
- II. friendly relations with foreign States,
- III. public order,
- IV. decency and morality,
- V. contempt of court,
- VI. defamation,
- VII. incitement to an offence, and
- VIII. sovereignty and integrity of India.

- 7) Consider the following statements regarding Right to be forgotten.
 - 1. The right to be forgotten is the right to have information about a person removed from public access.
- 2. The supportive argument for this right is that Persons cannot be perpetually stigmatised for past conduct.

Which of the above statements is/are incorrect?

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

Solution: d)

The right to be forgotten is, generally, the **right to have information about a person removed from public access**. The proponents argue that individuals should be able to determine the development of their life in an autonomous way. **Persons cannot be perpetually stigmatised for past conduct.**

Source

- 8) Consider the following statements.
 - 1. Tulu is a Dravidian language spoken mainly in the coastal districts of Karnataka and Kerala.
 - 2. It is included in the eighth schedule of the Constitution.
 - 3. It has been granted the official language status.

Which of the above statements is/are incorrect?

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

Solution: c)

Tulu is a Dravidian language spoken mainly in two coastal districts Dakshina Kannada and Udupi of Karnataka and Kasaragod district of Kerala.

The Tulu speakers, mainly in Karnataka and Kerala, have been requesting the governments to give it official language status and include it in the eighth schedule to the Constitution.

Source

- 9) Consider the following statements.
- 1. National Health Policy of 2017 proposed to raise public health expenditure by Government to 2.5 % of the GDP by 2025.
- 2. The right to equality guaranteed under Article 15 upholds non-discrimination on the basis of health status of an individual.

Which of the above statements is/are correct?

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

Solution: a)

The right to equality guaranteed under Article 15 upholds non-discrimination on the basis religion, race, caste, gender, place of birth.

The National Health Policy of 2017 has proposed a potentially achievable target of raising public health expenditure to 2.5 % of the GDP by 2025.

Though the Constitution of India does not expressly guarantee a fundamental right to health, there are multiple references in the Constitution to public health and on the role of the State in the provision of healthcare to citizens.

The Directive Principles of our Constitution provide a basis for the right to health.

Source Source

- 10) Consider the following statements.
- 1. In Lok Sabha and state legislatures, the President and Governor respectively sets the date for the election of the Speaker.
- 2. The Constitution specifies that the Speaker should be elected within 6 months from the formation of new Government.
 - 3. Usually, the Speaker comes from the ruling party.

Which of the above statements is/are correct?

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

Solution: d)

- The Maharashtra Legislative Assembly has been without a Speaker for most of this year.
- The Constitution specifies offices like those of the President, Vice President, Chief Justice of India, and
 Comptroller and Auditor General of India, as well as Speakers and Deputy Speakers. Article 93 for Lok
 Sabha and Article 178 for state Assemblies state that these Houses "shall, as soon as may be", choose two
 of its members to be Speaker and Deputy Speaker.
- The Constitution neither sets a time limit nor specifies the process for these elections. It leaves it to the
 legislatures to decide how to hold these elections. In Lok Sabha and state legislatures, the
 President/Governor sets a date for the election of the Speaker. The legislators of the respective Houses
 vote to elect one among themselves to these offices.
- **Usually, the Speaker comes from the ruling party**. In the case of the Deputy Speaker of Lok Sabha, the position has varied over the years.

Source

- 11) Consider the following statements.
 - 1. Speaker decides the date for the election of the Deputy Speaker.
 - 2. The Deputy Speaker is subordinate to the Speaker.
 - 3. When a resolution for removal of the Speaker is up for discussion, the Constitution specifies that the Deputy Speaker presides over the proceedings of the House.

Which of the above statements is/are correct?

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

Solution: c)

It is the Speaker who decides the date for the election of the Deputy Speaker.

The **Deputy Speaker is independent of the Speaker**, not subordinate to him, as both are elected from among the members of the House.

InsightsIAS

The Deputy Speaker ensures the continuity of the Speakers office by acting as the Speaker when the office becomes vacant. In addition, when a resolution for removal of the Speaker is up for discussion, the Constitution specifies that the Deputy Speaker presides over the proceedings of the House.

Source

- 12) Consider the following statements regarding by-polls as stated under Representation of the People Act, 1951.
- 1. The Act mandates that a byelection for any vacancy should be held within six months of that vacancy arising, provided the remainder of the term is not less than one year.
 - 2. The act bars a byelection when the remaining term of the assembly is less than one year.
- 3. By election may not be held if the Election Commission of India and the Centre feels that holding the By election is difficult.

Which of the above statements is/are correct?

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

Solution: b)

The Representation of the People Act 1951 mandates that a bypoll for any vacancy should be held within six months of that vacancy arising, provided that the remainder of the term is not less than one year, or the ECI and the Centre do not certify that holding that bypoll in that timeframe is difficult. The Act does not bar a bypoll even when the remaining term of the Assembly is less than one year, though it becomes optional in that case.

Source

- 13) The Article 19(2) of the Constitution of India imposes restrictions on free speech under which of the following situations?
 - 1. Interests of the sovereignty and integrity of India
 - 2. For friendly relations with foreign states
 - 3. Preventing incitement to the commission of an offence

Select the correct answer code:

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

Solution: d)

Telegraph Act, 1885: Under this law, the government can intercept calls only in certain situations — the **interests** of the sovereignty and integrity of India, the security of the state, friendly relations with foreign states or public order, or for preventing incitement to the commission of an offence. These are the same restrictions imposed on free speech under Article 19(2) of the Constitution.

- 14) 97th Constitution Amendment, recently seen in news is related to
 - a) Formation of a National Judicial Appointments Commission.
 - b) Right to form Cooperative societies
 - c) Constitutional status to National Commission for Backward Classes
 - d) A maximum of 10% Reservation for Economically Weaker Sections (EWSs)

Solution: b)

The **97th Amendment added the words "or cooperative societies"** to Article 19(1)(c) of the Constitution to **expand the fundamental right to form associations or unions to cover cooperative societies too**. It also added a 'Directive Principle' through Article 43B, which says: "The State shall endeavour to promote voluntary formation, autonomous functioning, democratic control and professional management of cooperative societies."

Source

7. History, Art and Culture

- 1) Consider the following statements.
 - 1. Dholavira, the archaeological site of a Harappan-era city is located in Haryana.
- 2. Dholavira is the first site of the ancient Indus Valley Civilisation (IVC) in India to get the UNESCO world heritage site tag.

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)

Dholavira, the archaeological site of a Harappan-era city, **received the UNESCO world heritage site tag**. While Dholavira became the fourth site from **Gujarat** and 40th from India to make the list, it is the first site of the ancient Indus Valley Civilisation (IVC) in India to get the tag.

Source

8. Agriculture

- 1) Consider the following statements regarding Alternate wetting and drying (AWD) technique.
- 1. Alternate Wetting and Drying (AWD) is a water-saving technology that farmers can apply to reduce their irrigation water consumption in rice fields.
 - 2. The number of days of non-flooded soil between irrigations cannot be more than 2 to 3 days.
- 3. One disadvantage of AWD technique is that the yield is reduced substantially compared to traditional methods of rice cultivation.

Which of the above statements is/are correct?

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

Solution: b)

Alternate Wetting and Drying (AWD) is a water-saving technology that farmers can apply to reduce their irrigation water consumption in rice fields without decreasing its yield.

In AWD, irrigation water is applied a few days after the disappearance of the ponded water.

Hence, the field gets alternately flooded and non-flooded. **The number of days of non-flooded soil between irrigations can vary from 1 to more than 10 days** depending on the number of factors such as soil type, weather, and crop growth stage.

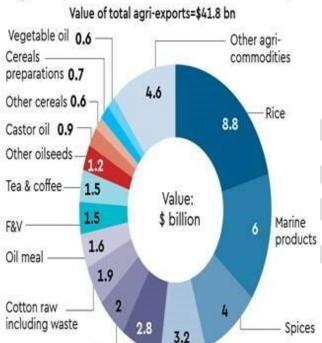
- 2) For the FY 2020-21, arrange the following agri-exports from India in increasing order in terms of its value.
 - 1. Spices
 - 2. Rice
 - 3. Raw cotton
 - 4. Vegetable Oil

Select the correct answer code:

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

Solution: c)

Agri-exports from India (FY 2020-21)



3) An Agricultural produce market committee (APMC) is established by the

Buffalo meet

Source: DGCIS

- a) Farmer Produce Organizations (FPOs)
- b) Authorized Local area Vendors (ALAVs)

Sugar

- c) State Government
- d) Local Government

Solution: c)

Processed

products

Agricultural Produce Market Committee (APMC) is a statutory market committee constituted by a **State Government** in respect of trade in certain notified agricultural or horticultural or livestock products, under the Agricultural Produce Market Committee Act issued by that state government.

- 4) Consider the following statements:
 - 1. Minimum Support Price (MSP) may be both lower or higher than the prevailing market price of the particular crop.
 - 2. All food grain procurement operations in India are undertaken by the Food Corporation of India (FCI).

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)

MSP can be anything that the government considers that the farmers should fairly get. This is to help them get fair remuneration for their produce and to motivate or demotivate them to produce a particular crop. **Hence it can be either lower or higher than the market price**. For e.g. if the government wishes to discourage rice farming, it would lower the MSP of rice.

The procurement system decentralization was started in 1997 where states play a very important role in the supply chain. **Not all procurements are done by FCI**. State cooperative agencies and other state-level distribution agencies also play a crucial role.

9. Defence and Security

- 1) The Ministry of Home Affairs (MHA) can designate individuals as "terrorists" under which of the following provisions
 - a) National Security Act, 1980
 - b) Prevention of Terrorism Act, 2002
 - c) The Unlawful Activities (Prevention) Amendment Act, 2019
 - d) Only organisations can be designated as terrorist and not individuals

Solution: c)

The Ministry of Home Affairs (MHA) can designate individuals as "terrorists" under the amended anti-terror law that was passed by the Parliament in 2019.

The Unlawful Activities Prevention Act (UAPA), enacted in 1967, was first amended in 2004, 2008 and 2013.

The UAPA as amended in August 2019 gave the MHA the power to designate individuals as terrorists.

Initially in 1967, the Act concerned itself with banning "unlawful" associations alone and had no mention of terrorism. "Unlawful activity" was defined as activities including speeches, writings etc that supported secessionist claims or questioned India's sovereignty.

Source

10. Reports and Indices

- 1) 'Global Economic Prospects' report is released by
 - a) World Economic Forum (WEF)
 - b) International Monetary Fund (IMF)
 - c) World Bank
 - d) The United Nations Conference on Trade and Development (UNCTAD)

Solution: c)

- 2) Sustainable Development Goals (SDG) India Index 2020–21, was released by
 - a) Ministry of Statistics and Programme Implementation
 - b) Ministry of Home Affairs
 - c) NITI Ayog
 - d) United Nations Development Programme

Solution: c)

The third edition of the SDG India Index 2020–21 was released by NITI Aayog. The SDG India Index 2020–21, developed in collaboration with the United Nations in India, tracks progress of all States and UTs on 115 indicators that are aligned to MoSPI's National Indicator Framework (NIF).

Source

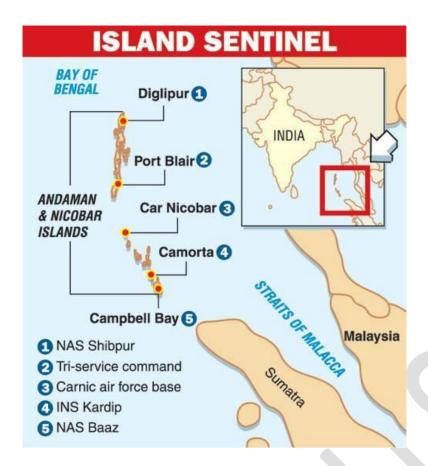
11. Maps / Places

- 1) Arrange the following places from South to North.
 - 1. Port Blair
 - 2. Diglipur
 - 3. Car Nicobar
 - 4. Campbell Bay

Select the correct answer code:

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

Solution: b)



- 2) Which of the following passes is/are located in Ladakh?
 - 1. Nathu La
 - 2. Baralacha La
 - 3. Zoji La
 - 4. Chang La

Select the correct answer code:

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

Solution: c)



Nathu La is a mountain pass in the Himalayas in East Sikkim district.

- 3) Consider the following statements regarding Canary Islands
 - 1. It is located in the Atlantic Ocean
 - 2. The Canary Islands are a French archipelago.

Which of the above statements is/are correct?

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

Solution: a)

The Canary Islands is a Spanish archipelago in the Atlantic Ocean.

The Canary Islands have been considered a bridge between four continents: Africa, North America, South America and Europe.



- 4) Consider the following statements regarding Diego Garcia, sometimes seen in news
 - 1. Diego Garcia is an island and an overseas territory of the United Kingdom.

2. It is located in South Atlantic Ocean.

Which of the above statements is/are correct?

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

Solution: a)

Diego Garcia is an **overseas territory of the United Kingdom.** It is a militarised atoll just south of the equator in the **central Indian Ocean,** and the largest of 60 small islands comprising the Chagos Archipelago.

5) Consider the following pairs

Sea Shares border with
1. Black Sea: Turkey and Russia
2. Red Sea: Saudi Arabia and Oman
3. Aral Sea: Uzbekistan and Kazakhstan
Which of the above pairs is/are correctly matched?

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







- 6) Bagram airbase, is located in
 - a) Iran
 - b) Saudi Arabia
 - c) Afghanistan
 - d) Qatar

Solution: c)

On July 2, the US and its allies exited **Bagram airbase**, the centrepiece of their presence in Afghanistan and the springboard for their operations there.

Source

- 7) Gulf of Aden forms a natural sea link between
 - a) Mediterranean Sea and Red Sea
 - b) Red Sea and Arabian Sea
 - c) Persian Gulf and Gulf of Oman
 - d) Persian Gulf and Arabian Sea

Solution: b)

Gulf of Aden, deepwater basin that forms a natural sea link between the Red Sea and the Arabian Sea.



- 8) Reed Bank is a disputed area in the
 - a) East China Sea
 - b) Caspian Sea
 - c) Mediterranean Sea
 - d) None of the above

Solution: d)

Reed Bank is a large tablemount or guyot in the South China Sea.

Although the Permanent Court of Arbitration ruled in 2016 that the area is within the Philippine Exclusive Economic Zone, economic rights to the area continue to be disputed – mainly by the People's Republic of China.

- 9) West Bank is bordered by
 - 1. Jordan
 - 2. Mediterranean Sea
 - 3. Israel
 - 4. Dead Sea

Select the correct answer code:

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

Solution: c)

West Bank is a landlocked territory near the Mediterranean coast of Western Asia, **bordered by Jordan and the Dead Sea to the east and by Israel to the south, west and north.**



- 10) Haiti is located in the archipelago of
 - a) Mediterranean Sea
 - b) Black Sea
 - c) Caribbean Sea
 - d) Red Sea

Solution: c)

Haiti is a country located on the island of Hispaniola in the Greater Antilles **archipelago of the Caribbean Sea**, to the east of Cuba and Jamaica and south of The Bahamas and the Turks and Caicos Islands.

- 11) Which of the following countries doesn't open out to the Caspian Sea?
 - a) Russia
 - b) Iran
 - c) Kazakhstan
 - d) Turkey

Solution: d)



- 12) Consider the following statements regarding Southern Ocean.
 - 1. It is the smallest of all the five principal Oceans.
 - 2. Unlike other oceans, the boundaries of Southern Ocean are not defined by the surrounding continents.
- 3. The Antarctic Circumpolar Current (ACC) is the strongest current system in the world oceans, linking the Atlantic, Indian and Pacific basins.

Which of the above statements is/are correct?

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

Solution: b)

Southern Ocean is regarded as the **second-smallest** of the five principal oceanic divisions: smaller than the Pacific, Atlantic, and Indian oceans but larger than the Arctic Ocean.

While the other oceans are defined by the continents that fence them in, the Southern Ocean is defined by a current.

Scientists estimate that the Antarctic Circumpolar Current (ACC) was established roughly 34 million years ago, when Antarctica separated from South America.

The Antarctic Circumpolar Current (ACC) is the strongest current system in the world oceans, linking the Atlantic, Indian and Pacific basins.

The ACC flows from west to east around Antarctica, in a broad fluctuating band roughly centered around a latitude of 60 degrees south—the line that is now defined as the northern boundary of the Southern Ocean. Inside the ACC, the waters are colder and slightly less salty than ocean waters to the north.

Extending from the surface to the ocean floor, the ACC transports more water than any other ocean current. It pulls in waters from the Atlantic, Pacific, and Indian Oceans, helping drive a global circulation system known as the conveyor belt, which transports heat around the planet.

Source

12. Miscellaneous

- 1) Consider the following statements regarding Cooperative societies in India.
 - 1. Cooperatives are enterprises which are owned, controlled and run by its members.
 - 2. The cooperative societies emerged only after Independence in India.
 - 3. In India, majority of the cooperative societies are governed by laws in their respective states.

Which of the above statements is/are correct?

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

Solution: c)

The government announced the formation of a separate Union Ministry of Cooperation, a subject that till date was looked after by the Ministry of Agriculture. Ministry of Cooperation will provide a separate administrative legal and policy framework for strengthening the cooperative movement in the country.

By definition, cooperatives are organisations formed at the grassroots level by people to harness the power of collective bargaining towards a common goal.

The history of cooperative societies dates back to the pre-Independence era, in response to the agrarian distress and overall indebtedness.

In agriculture, cooperative dairies, sugar mills, spinning mills etc are formed with the pooled resources of farmers who wish to process their produce. In banking and finance, cooperative institutions are spread across rural and urban areas. There are also cooperative marketing societies in rural areas and cooperative housing societies in urban areas.

Amul is a successful example of a dairy cooperative society.

Agriculture and cooperation are in the state list, which means state governments can govern them. A majority of the cooperative societies are governed by laws in their respective states.

Source

- 2) Consider the following statements.
- 1. The labour force participation rate essentially tells what percentage of the population want to be part of the workforce.
- 2. A low labour force participation rate means fewer people are making themselves available for economic activity.

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 labour force participation rate essentially tells us what percentage of people who are within the working-age (15 to 59 years) group want to be part of the workforce. A low labour force participation rate undermines a country's overall productivity and wellbeing because fewer people are making themselves available for economic activity.

Source



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