

**Q.1) 'Silent Valley National Park' is located in**

- a) Kerala
- b) Tamil Nadu
- c) Himachal Pradesh
- d) Arunachal Pradesh

**Q.1) Solution (a)**

It is a national park in Kerala. It is located in the Nilgiri hills.

The national park is one of the last undisturbed tracts of South Western Ghats mountain rain forests and tropical moist evergreen forest in India. Contiguous with the proposed Karimpuzha National Park (225 km<sup>2</sup>) to the north and Mukurthi National Park (78.46 km<sup>2</sup>) to the north-east, it is the core of the Nilgiri Biosphere Reserve (1,455.4 km<sup>2</sup>), and is part of the Nilgiri Sub-Cluster (6,000+ km<sup>2</sup>), Western Ghats World Heritage Site, recognised by UNESCO in 2007.

**Source:** <https://www.thehindu.com/news/national/kerala/silent-valley-reveals-its-treasure-trove/article30408358.ece>

**Q.2) Which of the following statements is/are correct with respect to 'India State of Forest Report 2019'?**

1. While the overall green cover has increased in the country, the forest cover in the north-east has decreased.
2. North-eastern and central India are the most vulnerable regions to forest fires in India.

**Select the correct statements**

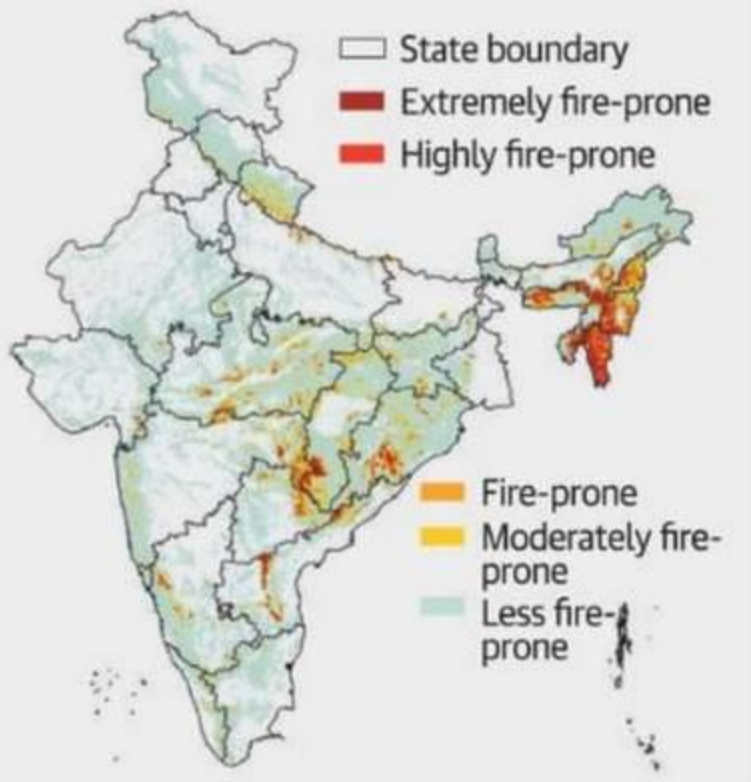
- a) 1 Only
- b) 2 Only
- c) Both 1 and 2
- d) Neither 1 nor 2

**Q.2) Solution (c)**

While the overall green cover has increased in the country, the forest cover in the north-east — particularly in Mizoram, Arunachal Pradesh and Nagaland — has decreased.

## In the line of fire

The forests in the north-eastern and central parts of India have more fire-prone areas in the country. Close to 30% forest cover in Mizoram are under "extremely fire-prone category" – highest in the country. Map shows India's fire-prone forest areas



Source: <https://www.thehindu.com/sci-tech/energy-and-environment/one-fifth-of-countrys-forests-prone-to-fires-study/article30446295.ece>

### Q.3) Consider the following statements with respect to 'Protocooperation'

1. It is an interaction between organisms of different species in which both organisms' benefit, but neither is dependent on the relationship.
2. The flowers of plants that are pollinated by insects and birds is an example of protocooperation.

#### Select the correct statements

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

### Q.3) Solution (c)

Protocooperation is where two species interact with each other beneficially; they have no need to interact with each other - they interact purely for the gain that they receive from doing this.

It is not at all necessary for protocoeperation to occur; growth and survival is possible in the absence of the interaction. The interaction that occurs can be between different kingdoms.

The flowers of plants that are pollinated by insects and birds benefit from protocoeperation. The plants, particularly those with large bright colourful flowers bearing nectar glands, experience cross pollination because of the insects activities. This is beneficial to the insect that has got the food supply of pollen and nectar required for its survival.

Source: <https://www.thehindu.com/sci-tech/energy-and-environment/the-crow-that-likes-to-sing/article30347317.ece>

**Q.4) 'Talley Valley Wildlife Sanctuary' is located in**

- a) Nagaland
- b) Tripura
- c) Ladakh
- d) Arunachal Pradesh

**Q.4) Solution (d)**

Talley Valley Wildlife Sanctuary is a wildlife sanctuary in Arunachal Pradesh.

Source: <https://www.thehindu.com/sci-tech/energy-and-environment/new-snake-species-found-in-arunachal/article30099823.ece>

**Q.5) Consider the following statements with respect to 'Solar and Heliospheric Observatory (SOHO)'**

1. It is a joint project of international cooperation between the European Space Agency (ESA) and ISRO.
2. It was launched onboard Chandrayaan- 2.

**Select the correct statements**

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

**Q.5) Solution (d)**

The Solar and Heliospheric Observatory (SOHO) is a spacecraft built by a European industrial consortium led by Matra Marconi Space (now Airbus Defence and Space) that was launched on a Lockheed Martin Atlas II AS launch vehicle on December 2, 1995 to study the Sun. SOHO has also discovered over 3,000 comets. It began normal operations in May 1996. It is a joint project of international cooperation between the European Space Agency (ESA) and NASA. Originally planned as a two-year mission, SOHO continues to operate after over 20 years in space: the mission is extended until the end of 2020 with a likely extension until 2022. As of 2019, only the LASCO coronagraph is still routinely producing data, with the other instruments all having been switched off.

Source: <https://www.thehindu.com/sci-tech/science/shape-of-suns-corona-accurately-predicted/article30420269.ece>

**Q.6) 'Line of Actual Control (LAC)' is concerned with which of the following countries?**

- a) China
- b) Myanmar
- c) Pakistan
- d) Bangladesh

**Q.6) Solution (a)**

Source: [https://www.business-standard.com/article/pti-stories/hope-peace-along-frontier-with-china-will-eventually-lead-to-resolution-of-border-dispute-army-chief-120010100794\\_1.html](https://www.business-standard.com/article/pti-stories/hope-peace-along-frontier-with-china-will-eventually-lead-to-resolution-of-border-dispute-army-chief-120010100794_1.html)

**Q.7) Consider the following statements with respect to 'Gaganyaan'**

1. It is an Indian crewed orbital spacecraft that is intended to send 3 astronauts to space for a minimum of seven days by 2022, as part of the Indian Human Spaceflight Programme.
2. ISRO's Geosynchronous Satellite Launch Vehicle GSLV Mk III, the three-stage heavy-lift launch vehicle, will be used to launch Gaganyaan.

**Select the correct statements**

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

**Q.7) Solution (c)**

Gaganyaan is an Indian crewed orbital spacecraft that is intended to send 3 astronauts to space for a minimum of seven days by 2022, as part of the Indian Human Spaceflight Programme. The spacecraft, which is being developed by the Indian Space Research Organisation (Isro), consists of a service module and a crew module, collectively known as the Orbital Module. It will be for the first time that India will launch its manned mission to space, making the country fourth in line to have sent a human to space. Isro's Geosynchronous Satellite Launch Vehicle GSLV Mk III, the three-stage heavy-lift launch vehicle, will be used to launch Gaganyaan as it has the necessary payload capability.

GSLV Mk III is designed to carry 4 ton class of satellites into Geosynchronous Transfer Orbit (GTO) or about 10 tons to Low Earth Orbit (LEO). The powerful cryogenic stage of GSLV Mk III enables it to place heavy payloads into LEO's of 600 km altitude. The launcher uses two S200 solid rocket boosters to provide the huge amount of thrust required for lift off.

Source: [https://www.business-standard.com/article/current-affairs/isro-identifies-4-astronauts-for-india-s-manned-space-mission-gaganyaan-120010100926\\_1.html](https://www.business-standard.com/article/current-affairs/isro-identifies-4-astronauts-for-india-s-manned-space-mission-gaganyaan-120010100926_1.html)

**Q.8) 'Long March 5' heavy-lift rocket is developed by**

- a) USA
- b) Russia
- c) China
- d) India

**Q.8) Solution (c)**

Long March 5 (LM-5, CZ-5, or Changzheng 5) is a Chinese heavy lift launch system developed by China Academy of Launch Vehicle Technology (CALT).

Source: <https://timesofindia.indiatimes.com/world/china/china-launches-powerful-long-march-5-space-rocket/articleshow/72996926.cms>

**Q.9) Consider the following statements with respect to 'MANI' app**

1. It was launched to aid visually impaired persons in identifying denomination of currency notes.
2. It also authenticates a note as either genuine or counterfeit.

Select the correct statements

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

**Q.9) Solution (a)**

RBI launched a mobile app to help visually-impaired people to identify the denomination of currency notes.

The central bank also said the app does not authenticate a note as either genuine or counterfeit.

Source: <https://www.livemint.com/news/india/rbi-launches-mobile-app-mani-for-visually-challenged-to-identify-currency-notes-11577880157522.html>

**Q.10) 'SnowEx' is snow remote sensing programme launched by**

- a) NASA
- b) ISRO
- c) ESA
- d) Roscosmos

**Q.10) Solution (a)**

Source: <https://indianexpress.com/article/explained/explained-what-is-snowex-6188445/>

**Q.11) The northeast monsoon generally brings rain to**

- 1. Tamil Nadu
- 2. Puducherry
- 3. Kerala

Select the correct code:

- a) 1 and 2
- b) 2 and 3
- c) 1 and 3
- d) All of the above

**Q.11) Solution (d)**

The northeast monsoon brings rain to just five of the 36 meteorological divisions in the country — Tamil Nadu (which includes Puducherry), Kerala, Coastal Andhra Pradesh, Rayalaseema and South Interior Karnataka.

Source: <https://indianexpress.com/article/explained/the-imd-says-india-has-just-finished-a-satisfactory-northeast-monsoon-what-is-this-monsoon-6196789/>

**Q.12) 'Palau' is located in**

- a) Pacific Ocean
- b) Indian Ocean
- c) Atlantic Ocean
- d) Arctic Ocean

**Q.12) Solution (a)**

Palau is an island country located in the western Pacific Ocean. The country contains approximately 340 islands, and together with parts of the Federated States of Micronesia, forms the western chain of the Caroline Islands.

Palau has become the first country to ban sun cream that is harmful to corals. The country has banned common ingredients used in cosmetics including oxybenzone.

**Q.13) Consider the following statements with respect to 'GEMINI'**

1. It aims to disseminate emergency information and communication on disaster warnings, Potential Fishing Zones (PFZ) and Ocean States Forecasts (OSF) to fishermen.
2. It was launched by Indian National Centre for Ocean Information Services (INCOIS) and Airport Authority of India (AAI).

**Select the correct statements**

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

**Q.13) Solution (c)**

For seamless and effective dissemination of emergency information and communication on disaster warnings, Potential Fishing Zones (PFZ) and Ocean States Forecasts (OSF) to fishermen, the Government launched the Gagan Enabled Mariner's Instrument for Navigation and Information (GEMINI) device.

Indian National Centre for Ocean Information Services (INCOIS), an autonomous body under the Ministry of Earth Sciences (MoES) joined hands with Airports Authority of India (AAI) to utilize the GAGAN (GPS Aided Geo Augmented Navigation) satellite system to transmit the PFZ, OSF and disaster warnings to fishermen with GAGAN system consisting of three geosynchronous satellites (GSAT-8, GSAT-10 and GSAT-15).

Source: <http://pibarchive.nic.in/newsite/erelease.aspx?relid=196224>

**Q.14) Which of the following pairs is/are correctly matched?**

1. Cyclone 'PABUK' - Northeast and adjoining east central Arabian sea
2. Cyclone 'FANI' - Southwest Bay & adjoining Southeast of Bengal
3. Cyclone 'HIKAA' – Andaman Sea

Select the correct code:

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

**Q.14) Solution (b)**

Cyclonic Storm 'PABUK' over Andaman Sea & neighbourhood, Cyclone 'FANI' over Southwest Bay & adjoining Southeast of Bengal, Cyclone Alert for Odisha, West Bengal & Srikakulam and Vijayanagaram Districts of Andhra Pradesh Coasts, Cyclonic Storm 'VAYU' over Northeast & adjoining East central Arabian Sea, Depression over northwest Bay of Bengal off north Odisha – West Bengal coasts, Cyclonic Storm 'HIKAA' over northeast and adjoining east central Arabian sea and Cyclonic Storm 'BULBUL' over northwest and adjoining West-Central Bay of Bengal. Other alerts like Snowfall over hills, hailstorms and Western Disturbance were also disseminated by issuing press releases.

Source: <http://pibarchive.nic.in/newsite/erelease.aspx?relid=196224>



**Q.15) Consider the following statements with respect to 'Nageswaraswamy Temple'.**

1. It is an ancient Chola temple, constructed by Aditya Chola.
2. It was built in the Kalinga region.

**Select the correct statements**

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

**Q.15) Solution (a)**

Nageswaraswamy Temple, Kumbakonam is a Hindu temple dedicated to Lord Shiva located in Kumbakonam, Tamil Nadu. The temple is incarnated by the hymns of Thevaram and is classified as Paadal Petra Sthalam. Shiva in the guise of Nagaraja, the serpent king and is located in the centre of Kumbakonam.

Aditya Chola constructed this temple during the 9th century. It is great marvel of Chola architecture, building technology and astronomy.

**Source:** <https://www.thehindu.com/society/history-and-culture/arudra-celebration-at-the-nagadosha-parihara-sthalam/article30459423.ece>

**Q.16) Consider the following statements**

1. India has committed itself to creating an “additional carbon sink of 2.5 to 3 billion tonnes of carbon dioxide equivalent” by 2030.
2. India has committed to reduce its emissions intensity by 33% to 35% by 2030 compared to 2005.

**Select the correct statements**

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

**Q.16) Solution (c)**

India, as part of its contribution to the global fight against climate change, has committed itself to creating an “additional carbon sink of 2.5 to 3 billion tonnes of carbon dioxide equivalent” by 2030.

That is one of the three targets India has set for itself in its climate action plan, called Nationally Determined Contributions, or NDCs, that every country has to submit under the 2015 Paris Agreement. The other two relate to an improvement in emissions intensity, and an increase in renewable energy deployment. India has said it would reduce its emissions intensity (emissions per unit of GDP) by 33% to 35% by 2030 compared to 2005. It has also promised to ensure that at least 40% of its cumulative electricity generation in 2030 would be done through renewable energy.

Source: <https://indianexpress.com/article/explained/state-of-forest-report-2019-what-carbon-numbers-mean-for-climate-target-6201273/>

**Q.17) The carvings/sculptures of Trimurti Sadashiva, Nataraja and Yogishvara can be found in**

- a) Ajanta Caves
- b) Bhimbetka Caves
- c) Ellora Caves
- d) Elephanta Caves

**Q.17) Solution (d)**

The Elephanta Caves contain rock cut stone sculptures that show syncretism of Hindu and Buddhist ideas and iconography. The caves are hewn from solid basalt rock. Except for a few exceptions, much of the artwork is defaced and damaged. The main temple's orientation as well as the relative location of other temples are placed in a mandala pattern. The carvings narrate Hindu mythologies, with the large monolithic 20 feet (6.1 m) Trimurti Sadashiva (three-faced Shiva), Nataraja (Lord of dance) and Yogishvara (Lord of Yoga) being the most celebrated.

Source: <https://www.thehindu.com/society/history-and-culture/the-ancient-carvings-at-elephanta-caves-are-fading-and-no-one-cares/article30468682.ece>

**Q.18) Which of the following is the latest 'UNESCO World heritage site' in India?**

- a) Varanasi
- b) Mumbai
- c) Jaipur
- d) Jodhpur

**Q.18) Solution (c)**

India's nomination of the Jaipur City, Rajasthan got inscribed on the World Heritage List of UNESCO during the 43rd Session of the World Heritage Committee held at Baku, Azerbaijan.

Source: <https://pib.gov.in/PressReleaseDetailm.aspx?PRID=1598364>

**Q.19) Consider the following statements with respect to 'Miyawaki'**

1. It is technique of growing dense plantations in a short time.
2. The technique was started by the Japanese considering the climate in Japan and the regular occurrence of natural calamities like earthquakes.

**Select the correct statements**

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

**Q.19) Solution (c)**

Miyawaki is a Japanese technique of growing dense plantations in a short time.

The technique was started by the Japanese considering the climate in Japan and the regular occurrence of natural calamities like earthquakes.

Source: <https://www.thehindu.com/news/cities/Thiruvananthapuram/kerala-to-take-more-cover-under-miyawaki-forests/article30479463.ece>

**Q.20) 'Bhitarkanika Wildlife Sanctuary' is located in**

- a) Odisha
- b) Andhra Pradesh
- c) Jammu and Kashmir
- d) Goa

**Q.20) Solution (a)**

Bhitarkanika National Park is a 145 km<sup>2</sup> large national park in northeast Kendrapara district in Odisha in eastern India. It was designated on 16 September 1998 and obtained the status of a Ramsar site on 19 August 2002. The area is also been designated as second Ramsar site of the State after the Chilika Lake. It is surrounded by Bhitarkanika Wildlife Sanctuary, which spread over 672 km<sup>2</sup>. Gahirmatha Beach and Marine Sanctuary are to the east, separating swamp region and mangroves from the Bay of Bengal. The national park and wildlife sanctuary is inundated by the rivers Brahmani, Baitarani, Dhamra, Pathsala. It hosts many mangrove species, and is the second largest mangrove ecosystem in India.

**Q.21) Consider the following statements with respect to 'jus cogens rules'.**

1. The jus cogens rules have been sanctioned by the four Geneva Conventions and its three protocols.
2. They are rules in international law that are peremptory or authoritative, and from which states cannot deviate.

**Select the correct statements**

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

**Q.21) Solution (b)**

JUS COGENS or ius cogens, meaning “compelling law” in Latin, are rules in international law that are peremptory or authoritative, and from which states cannot deviate. These norms cannot be offset by a separate treaty between parties intending to do so, since they hold fundamental values. Today, most states and international organisations accept the principle of jus cogens, which dates back to Roman times.

The jus cogens rules have been sanctioned by the Vienna Conventions on the Law of Treaties of 1969 and 1986. According to both Conventions, a treaty is void if it breaches jus cogens rules.

**Source:** <https://indianexpress.com/article/explained/iran-us-tension-gassem-soleimani-death-what-is-jus-cogens-6203579/>

**Q.22) Which of the following countries is NOT part of the 'E3' group of countries?**

- a) France
- b) Britain

- c) Germany
- d) Spain

**Q.22) Solution (d)**

E3 group of countries — Britain, France, and Germany.

Source: <https://indianexpress.com/article/explained/explained-the-nuclear-deal-iran-has-stepped-away-from-what-happens-next-6203064/>

**Q.23) Consider the following statements with respect to 'Blue Dot Network'**

1. The aim of this initiative is to bring governments, the private sectors, and civil societies for promoting high-quality global infrastructure development in an open and inclusive framework.
2. It is launched by Japan and India.

**Select the correct statements**

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

**Q.23) Solution (a)**

Blue Dot Network has been jointly launched by the US Overseas Private Investment Corporation (OPIC), Australia's Department of Foreign Affairs and Trade (DFAT), and Japan Bank for International Cooperation (JBIC). The aim of this initiative is to bring governments, the private sectors, and civil societies for promoting high-quality global infrastructure development in an open and inclusive framework.

Source: <https://www.thehindu.com/opinion/op-ed/spotting-an-opportunity-in-changing-fundamentals/article30487623.ece>

**Q.24) Which of the following countries is NOT a part of the 'Indo-Pacific Business Forum'?**

- a) USA
- b) India
- c) Japan

d) Australia

**Q.24) Solution (b)**

India is absent from the Indo-Pacific Business Forum created by the U.S., Japan and Australia.

Source: <https://www.thehindu.com/opinion/op-ed/spotting-an-opportunity-in-changing-fundamentals/article30487623.ece>

**Q.25) Consider the following statements with respect to 'GAVI'**

1. It is a public–private global health partnership committed to increasing access to immunisation in poor countries.
2. India is not a GAVI supported country.

**Select the correct statements**

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

**Q.25) Solution (c)**

GAVI, officially Gavi, the Vaccine Alliance (previously the GAVI Alliance,[1] and before that the Global Alliance for Vaccines and Immunization) is a public–private global health partnership committed to increasing access to immunisation in poor countries.

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.

GAVI supported countries doesn't include India but includes Pakistan, Bangladesh, Nepal, Myanmar etc - <https://www.iffim.org/funding-gavi/eligible-countries/>

Source: <https://www.thehindu.com/sci-tech/health/who-prequalifies-serums-low-cost-pneumococcal-vaccine/article30479274.ece>

**Q.26) 'Ayn al Asad' was in news recently. Where is it located?**

- a) Iraq
- b) Iran
- c) Oman
- d) Syria

**Q.26) Solution (a)**

Ayn al Asad is an Iraqi Armed Forces and United States armed forces base located in Al Anbar Governorate of western Iraq. The base is also used by British armed forces in Iraq.

Source: <https://indianexpress.com/article/world/iran-attacks-us-al-asad-air-base-in-iraq-6205548/>

**Q.27) 'Naseem-Al-Bahr' is a bilateral exercise between India and**

- a) Yemen
- b) Oman
- c) UAE
- d) Qatar

**Q.27) Solution (b)**

'Naseem-Al-Bahr' (or sea breeze) is a naval exercise between the Indian Navy and the RNO, being conducted since 1993.

Source: [https://www.business-standard.com/article/pti-stories/royal-navy-of-oman-ships-arrive-in-go-a-for-naval-exercise-naseem-al-bahr-120010601169\\_1.html](https://www.business-standard.com/article/pti-stories/royal-navy-of-oman-ships-arrive-in-go-a-for-naval-exercise-naseem-al-bahr-120010601169_1.html)

**Q.28) 'Zo Kutpui' festival is associated with which of the following states?**

- a) Mizoram
- b) Odisha
- c) Goa
- d) Nagaland

**Q.28) Solution (a)**

As part of its endeavour to unify different tribes of Mizo, the Mizoram government will organise a grand Zo festival under the banner 'Zo Kutpui' in at least 10 different cities across the globe starting from January 9.

**Q.29) 'NetSCoFAN' is associated with**

- a) Food and Nutrition
- b) Insolvency & Bankruptcy
- c) Energy Labelling
- d) Carbon Stock

**Q.29) Solution (a)**

NetSCoFAN, a network of research & academic institutions working in the area of food & nutrition was recently launched.

The NetSCoFAN would comprise of eight groups of institutions working in different areas viz. biological, chemical, nutrition & labelling, food of animal origin, food of plant origin, water & beverages, food testing, and safer & sustainable packaging.

**Source:** <https://pib.gov.in/PressReleaselframePage.aspx?PRID=1597673>

**Q.30) 'Gujili paatu' is associated with which of the following states?**

- a) Tamil Nadu
- b) Odisha
- c) Goa
- d) Tripura

**Q.30) Solution (a)**

It is a type of subaltern literature that existed from the mid-19th Century to the 1950s. Written by the common man, they recorded important news events — be it the first train that rolled out in Royapuram, the introduction of the tram network, or the Madras famine.

**Source:** <https://www.thehindu.com/society/history-and-culture/gujili-paatu-the-forgotten-songs-of-madras/article30320526.ece>

**Q.31) Consider the following statements with respect to 'Goldilocks zone'.**



1. It is the area around a star where it is not too hot and not too cold for liquid water to exist on the surface of surrounding planets.
2. Earth is in the Sun's Goldilocks zone.

**Select the correct statements**

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

**Q.31) Solution (c)**

A habitable zone, also called the "Goldilocks zone", is the area around a star where it is not too hot and not too cold for liquid water to exist on the surface of surrounding planets.

Obviously, our Earth is in the Sun's Goldilocks zone. If Earth were where the dwarf planet Pluto is, all its water would freeze; on the other hand, if Earth were where Mercury is, all its water would boil off.

**Source:** <https://indianexpress.com/article/explained/this-word-means-goldilocks-zone-6206998/>

**Q.32) Consider the following statements with respect to 'TOI-700 d'**

1. It is the first Earth-sized exoplanet in the habitable zone to be discovered.
2. It was discovered by NASA's Transiting Exoplanet Survey Satellite (TESS).

**Select the correct statements**

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

**Q.32) Solution (c)**

NASA reported the discovery of an Earth-size planet, named TOI 700 d, orbiting its star in the "habitable zone".

TOI-700 d is an exoplanet, likely rocky, orbiting TOI-700, a red dwarf star 101.4 light-years away in the Dorado constellation. The exoplanet is the first Earth-sized exoplanet in the habitable zone discovered by the Transiting Exoplanet Survey Satellite (TESS).

TOI 700 d measures 20% larger than Earth. It orbits its star once every 37 days and receives an amount of energy that is equivalent to 86% of the energy that the Sun provides to Earth. The star, TOI 700, is an "M dwarf" located just over 100 light-years away in the southern constellation Dorado, is roughly 40% of our Sun's mass and size, and has about half its surface temperature.

Source: <https://indianexpress.com/article/explained/this-word-means-goldilocks-zone-6206998/>

**Q.33) Consider the following statements with respect to 'GST Council'**

1. In case of a voting, every decision of the GST Council has to be taken by a majority of not less than three-fourths of the weighted votes of the members present.
2. The vote of the central government has a weightage of two-thirds of the total votes cast, and the votes of all the state governments taken together have a weightage of one-third of the total votes cast.

**Select the correct statements**

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

**Q.33) Solution (a)**

As per The Constitution (One Hundred and First Amendment) Act, 2016, in case of a voting, every decision of the GST Council has to be taken by a majority of not less than three-fourths of the weighted votes of the members present.

The vote of the central government has a weightage of one-third of the total votes cast, and the votes of all the state governments taken together have a weightage of two-thirds of the total votes cast in that meeting.

Source: <https://indianexpress.com/article/explained/explained-voting-at-the-gst-council-6206947/>

**Q.34) Consider the following statements with respect to 'Lithium-Sulfur (Li-S) batteries'.**

1. They were replaced by Lithium-ion (Li-ion) batteries as they were susceptible to overheating and prone to damage at high voltages.
2. Li-S batteries have low cost of production as compared to Li-ion batteries.

**Select the correct statements**

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

**Q.34) Solution (d)**

Researchers who have developed this new Li-S battery claim it has an “ultra-high capacity” and has better performance and less environmental impact. This means that they may be able to outperform the Li-ion batteries by more than four times.

With Li-ion batteries, some disadvantages include their susceptibility to overheating and their being prone to damage at high voltages. Such batteries also start losing their capacity over time — for instance, a laptop battery in use for a few years does not function as well as a new one.

While the materials used in the Li-S batteries are not different from those in Li-ion batteries, the researchers have reconfigured the design of the sulfur cathodes (a type of electrical conductor through which electrons move) to accommodate higher stress without a drop in overall capacity.

Furthermore, Li-S batteries are generally considered to be the successors of the Lithium-ion (Li-ion) batteries because of their lower cost of production, energy efficiency and improved safety. Their cost of production is lower because sulfur is abundantly available.

**Q.35) Which of the following statements with respect to 'Hindustan Socialist Republican Association (HSRA)'**

1. HSRA published its manifesto titled “The Revolutionary” in 1925.
2. It was established by by Chandrasekhar Azad, Bhagat Singh, Sukhdev Thapar and Ramprasad Bismil.

**Select the correct statements**

- a) 1 Only
- b) 2 Only

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

**Q.35) Solution (c)**

Hindustan Socialist Republican Association (HSRA) was a revolutionary organisation, also known as the Hindustan Socialist Republican Army, established in 1928 at Feroz Shah Kotla in New Delhi by Chandrasekhar Azad, Bhagat Singh, Sukhdev Thapar and Ramprasad Bismil Yogesh Chatarjee. Previously it was known as the Hindustan Republican Association (HRA), whose written constitution and published manifesto titled The Revolutionary were produced as evidence in the Kakori conspiracy case of 1925.

Source: <https://indianexpress.com/article/explained/explained-who-was-ashfaqullah-khan-the-27-year-old-freedom-fighter-hanged-by-the-british-6206893/>

**Q.36) 'Indian Imperial Association' is associated with**

- a) London
- b) Fiji
- c) Maldives
- d) Japan

**Q.36) Solution (b)**

The Indian Imperial Association of Fiji (I.I.A.) was active in Fiji during the last years of the indenture system, safeguarding the interests of and assisting in the improvement of the Indian community.

Source: <https://indianexpress.com/article/explained/explained-manilal-doctor-mahatma-gandhi-overseas-work-6208393/>

**Q.37) Consider the following statements with respect to 'The Indian Settler' newspaper.**

1. It was started in South Africa.
2. It was started by Mahatma Gandhi in 1911.

**Select the correct statements**

- a) 1 Only
- b) 2 Only

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

**Q.37) Solution (d)**

In Fiji, Manilal Doctor started 'The Indian Settler' newspaper.

Source: <https://indianexpress.com/article/explained/explained-manilal-doctor-mahatma-gandhi-overseas-work-6208393/>

**Q.38) Consider the following statements with respect to 'Manilal Doctor'.**

1. He fought for the rights of Indian-origin people in Mauritius and Fiji.
2. He helped establish the Arya Samaj in Mauritius.

**Select the correct statements**

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

**Q.38) Solution (c)**

January 8 was the death anniversary of Manilal Doctor, the colonial-era barrister who fought for the rights of Indian-origin people in Mauritius and Fiji. An associate of Mahatma Gandhi, Doctor is known for his efforts towards helping abolish the indentured labour system that Indian immigrants in many parts of the British Empire were subjected to.

He founded 'The Hindustani' newspaper in Mauritius, which had the motto "Liberty of Individuals! Fraternity of Men!!! Equality of Race!!!".

Doctor also helped establish the Arya Samaj in Mauritius. He returned to India in 1911.

Source: <https://indianexpress.com/article/explained/explained-manilal-doctor-mahatma-gandhi-overseas-work-6208393/>

**Q.39) Indian indentured labours were transported to which of the following colonies?**

1. British
2. French

3. Dutch

**Select the correct code:**

- a) 1 Only
- b) 1 and 2
- c) 1 and 3
- d) All of the above

**Q.39) Solution (d)**

An early version of indentured labour system began in 1815, when a group of convicts were shipped to Mauritius from India. But the system actually commenced in 1834 with 75 indentured labourers from Calcutta and Bombay shipped to Mauritius by Gillanders, Arbutnot and Co. British Guyana on mainland South America began to import labourers in 1838 and over the next few decades, Indian indentured labourers were being transported to all parts of the globe wooed by the British, French and Dutch, even as slavery began to be outlawed both in Europe as well as in the colonies administered by European powers.

**Source:** <https://indianexpress.com/article/explained/explained-manilal-doctor-mahatma-gandhi-overseas-work-6208393/>

**Q.40) Consider the following statements with respect to 'Operation Sankalp'**

- 1. It was launched to ensure safe passage of Indian Flag Vessels transiting through the South China Sea.
- 2. It was launched by the Indian Navy.

**Select the correct statements**

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

**Q.40) Solution (b)**

In the backdrop of the deteriorating security situation in the Gulf region, post attacks on merchant ships in the Gulf of Oman in Jun 19, Indian Navy had commenced Maritime Security Operations, code named Op SANKALP, in the Gulf Region on 19 Jun 19 to ensure safe passage of Indian Flag Vessels transiting through the Strait of Hormuz.

Indian Navy warships and aircraft were deployed to establish presence, provide a sense of reassurance to the Indian merchantmen, monitor the ongoing situation and respond to any emergent crises. One war ship is presently deployed for Operation SANKALP.

The operation is being progressed in close coordination with all stakeholders including Ministry of Defence, Ministry of External Affairs, Ministry of Shipping, Ministry of Petroleum and Natural Gas and DG, Shipping. Regular Inter-Ministerial meetings have been held to review the evolving Maritime Security Situation in the Gulf region.

Source: <https://pib.gov.in/PressReleaseDetail.aspx?PRID=1598858>

**Q.41) Consider the following statements with respect to 'H9N2'**

1. It is a subtype of the influenza A virus.
2. It does not affect humans.

**Select the correct statements**

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

**Q.41) Solution (a)**

H9N2 is a subtype of the influenza A virus, which causes human influenza as well as bird flu. The H9N2 subtype was isolated for the first time in Wisconsin, US in 1966 from turkey flocks. According to the US National Centre for Biotechnology Information (NCBI), H9N2 viruses are found worldwide in wild birds and are endemic in poultry in many areas. However, they are somewhat neglected. According to a recent report by NCBI researcher T P Peacock, H9N2 viruses could potentially play a major role in the emergence of the next influenza pandemic. According to the World Health Organization (WHO), with avian influenza viruses circulating in poultry, there is a risk for sporadic infection and small clusters of human cases due to exposure to infected poultry or contaminated environments. Therefore, sporadic human cases are not unexpected.

H9N2 virus infections in humans are rare, but likely under-reported due to typically mild symptoms of the infections. Cases of human infection have been observed in Hong Kong, China, Bangladesh, Pakistan, and Egypt. One case was detected in Oman recently. The first case globally was reported from Hong Kong in 1998. A total of 28 cases in China have been reported since December 2015. Cases continue to be reported mainly from mainland China and Hong Kong.

The virus has, however, spread extensively among poultry populations. Surveillance for influenza viruses in poultry in Bangladesh during 2008-2011 found H9N2 virus to be the predominant subtype. The virus was also identified in poultry populations in surveillance studies in Myanmar during 2014-16 and Burkina Faso in 2017.

Source: <https://indianexpress.com/article/explained/what-is-h9n2-avian-influenza-which-has-infected-indian-child-6213193/>

**Q.42) Consider the following statements with respect to 'Belur Math'.**

1. It was established in 1899 by Ramakrishna Paramahansa.
2. The temple architecture fuses Christian, Islamic, Hindu and Buddhist art motifs as a symbol of unity of all religions.

**Select the correct statements**

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

**Q.42) Solution (b)**

Belur Math is a monastery serving as the headquarters of the Ramakrishna Math and Mission, founded by Swami Vivekananda, the chief disciple of Ramakrishna Paramahansa. It is located on the west bank of Hooghly River, Belur, West Bengal, India and is one of the significant institutions in Kolkata. This temple is the heart of the Ramakrishna Movement. The temple is notable for its architecture that fuses Christian, Islamic, Hindu and Buddhist art motifs as a symbol of unity of all religions. In 2003 Belurmath railway station was also inaugurated which is dedicated to Belurmath temple.

Source: <https://indianexpress.com/article/explained/explained-how-swami-vivekananda-became-the-messenger-of-indian-wisdom-to-the-west-6213107/>

**Q.43) Consider the following statements with respect to 'Climate Innovations Exchange – CLIX'**

1. It is being held under the patronage of the UAE Ministry of Climate Change and Environment.
2. It was launched in World Future Energy Summit, 2018.



**Select the correct statements**

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

**Q.43) Solution (c)**

CLIX is being held under the patronage of the UAE Ministry of Climate Change and Environment as part of Abu Dhabi Sustainability Week, in collaboration with Masdar and the Zayed Future Energy Prize.

The Climate Innovation Exchange was launched in World Future Energy Summit, 2018. Since then it is being conducted on the side lines of the summit.

**Q.44) Which of the following countries participated in the 'Hormuz Peace Initiative'?**

- 1. India
- 2. Oman
- 3. China
- 4. Afghanistan

**Select the correct code:**

- a) 1, 2 and 3
- b) 2, 3 and 4
- c) 2 and 4 Only
- d) All of the above

**Q.44) Solution (d)**

The initiative is led by Iran.

Oman, India, China and Afghanistan are among the key participants.

# The Oil Gateway

**Key meet was held on Jan 6-7 with an aim to review latest developments in the Persian Gulf region amid escalating US-Iran tensions**

**Regional cooperation plans were discussed under 'Hormuz Peace Endeavor' (HOPE), proposed by Tehran**

## Key Participants

**Oman, India, Afghanistan and China**

## STRAIT OF HORMUZ

**One of the world's most strategically crucial choke points**

**Two-thirds of oil and half of LNG India imports come via the strait between Iran & Oman**

**As much as 18m barrels of oil pass through the strait every day, accounting for one-third of global oil trade**

**A third of world's LNG trade also passes through the gateway**



Image Credits – BCCL (The Economic Times)

### THINK!

- “Hormuz Peace Endeavor” (HOPE)

Source: <https://economictimes.indiatimes.com/news/politics-and-nation/india-engages-with-iran-to-keep-strait-of-hormuz-safe/articleshow/73197846.cms>

### Q.45) Consider the following statements with respect to ‘Traffic Separation Scheme’

1. TSSs are used in locations where there is a lot of shipping traffic, where not regulating the traffic would lead to more accidents.
2. TSSs are ruled by the International Maritime Organization.

Select the correct statements

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

**Q.45) Solution (c)**

A traffic separation scheme or TSS is a maritime traffic-management route-system ruled by the International Maritime Organization or IMO. The traffic-lanes (or clearways) indicate the general direction of the ships in that zone; ships navigating within a TSS all sail in the same direction or they cross the lane in an angle as close to 90 degrees as possible.

TSSs are used in locations where there is a lot of traffic (busy shipping areas) where not regulating the traffic would lead to more accidents.

**Q.46) Consider the following statements**

1. Under the 7th Schedule of the Constitution, 'Police' is under the State list.
2. In the Commissionerate system, the Commissioner of Police (CP) is the head of a unified police command structure and has magisterial powers, including those related to regulation, control, and licensing.

**Select the correct statements**

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

**Q.46) Solution (c)**

Under the 7th Schedule of the Constitution, 'Police' is under the State list, meaning individual states typically legislate and exercise control over this subject. In the arrangement in force at the district level, a 'dual system' of control exists, in which the Superintendent of Police (SP) has to work with the District Magistrate (DM) for supervising police administration.

At the metropolitan level, many states have replaced the dual system with the commissionerate system, as it is supposed to allow for faster decision-making to solve complex urban-centric issues.

In the commissionerate system, the Commissioner of Police (CP) is the head of a unified police command structure, is responsible for the force in the city, and is accountable to the state government. The office also has magisterial powers, including those related to regulation, control, and licensing.

The CP is drawn from the Deputy Inspector General rank or above, and is assisted by Special/Joint/Additional/Deputy Commissioners.

Source: <https://indianexpress.com/article/explained/explained-what-is-the-commissionerate-system-recently-implemented-in-lucknow-noida-6214871/>

**Q.47) 'Galilee Basin' was in new recently. Where is it located?**

- a) Australia
- b) USA
- c) Canada
- d) United Kingdom

**Q.47) Solution (a)**

The Galilee Basin is a large inland geological basin in the western Queensland region of Australia.

Source: <https://indianexpress.com/article/explained/explained-what-is-adani-coal-mining-project-in-australia-which-greta-thunberg-is-opposing-6214848/>

**Q.48) Which of the following is included in the Eight Wonders of the Shanghai Cooperation Organisation (SCO)?**

- a) Taj Mahal
- b) Statue of Unity
- c) Ajanta Caves
- d) Red Fort

**Q.48) Solution (b)**

The Shanghai Cooperation Organisation (SCO), an international alliance of eight member states from Eurasia, has included the Statue of Unity among the 'Eight Wonders of the SCO'.

Source: <https://timesofindia.indiatimes.com/city/ahmedabad/sou-included-in-eight-wonders-of-the-sco/articleshow/73235160.cms>

**Q.49) 'Island Development Agency (IDA) is chaired by**

- a) Ministry of Environment, Forest and Climate Change
- b) Minister of Home Affairs
- c) Prime Minister of India
- d) Minister of Defence

**Q.49) Solution (b)**

Source: <https://timesofindia.indiatimes.com/india/amit-shah-chairs-sixth-meeting-of-island-development-agency/articleshow/73234359.cms>

**Q.50) Consider the following statements with respect to 'GSAT-30'.**

1. It provides Indian mainland and islands coverage in Ku-band and extended coverage in C-band covering Gulf countries, a large number of Asian countries and Australia.
2. It is a communication satellite and serves as replacement to INSAT-4A spacecraft services.

**Select the correct statements**

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

**Q.50) Solution (c)**

GSAT-30 is a communication satellite of India which is configured on ISRO's enhanced I-3K Bus structure to provide communication services from Geostationary orbit in C and Ku bands. The satellite derives its heritage from ISRO's earlier INSAT/GSAT satellite series.

Weighing 3357 kg, GSAT-30 is to serve as replacement to INSAT-4A spacecraft services with enhanced coverage. The satellite provides Indian mainland and islands coverage in Ku-band and extended coverage in C-band covering Gulf countries, a large number of Asian countries and Australia.

Source: <https://www.indiatoday.in/science/story/isro-communication-satellite-gsat-30-to-launch-on-january-17-1636457-2020-01-13>

**Q.51) Annual Status of Education Report (ASER) is published by**

- a) UNESCO
- b) NITI Aayog
- c) NGO Pratham
- d) Smile Foundation

**Q.51) Solution (c)**

NGO Pratham released its annual report, Annual Status of Education Report, 2019. The report is based on the survey conducted in 26 districts that covers 36,000 children in the age group of 4 to 8 years.

**Q.52) 'IC Verma Sub Committee'**

- a) Pharma Pricing
- b) Rare Diseases
- c) Anti-Retroviral Therapy
- d) Lifestyle Diseases

**Q.52) Solution (b)**

National Draft Policy on rare diseases has been framed based on the recommendations of the following committees V K Paul Committee, IC Verma Sub Committee Report and D K Tempe Committee Report.

**Q.53) The term 'Cetane Number' is an indicator of**

- a) Combustion speed of diesel fuel
- b) Moisture in soil
- c) Indian Ocean Dipole
- d) Volcano Eruption

**Q.53) Solution (a)**

Cetane number (cetane rating) is an indicator of the combustion speed of diesel fuel and compression needed for ignition. It plays a similar role for diesel as octane rating does for gasoline. The CN is an important factor in determining the quality of diesel fuel, but not the only one; other measurements of diesel fuel's quality include (but are not limited to) energy content, density, lubricity, cold-flow properties and sulphur content.

**Q.54) Which of the following languages is not a 'Classical Language'?**

- a) Telugu
- b) Marathi
- c) Kannada
- d) Odia

**Q.54) Solution (b)**

Currently, six languages enjoy the 'Classical' status: Tamil (declared in 2004), Sanskrit (2005), Kannada (2008), Telugu (2008), Malayalam (2013), and Odia (2014).

**Q.55) Consider the following statements with respect to 'Raisina Dialogue'**

1. It is a multilateral conference committed to addressing the most challenging issues facing the global community.
2. It is jointly organised by the Ministry of External Affairs (MEA) and the Observer Research Foundation (ORF).

**Select the correct statements**

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

**Q.55) Solution (c)**

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

**Q.56) The 'Global Risks Report' is published by**

- a) World Economic Forum
- b) World Bank
- c) World Health Organization
- d) United Nations Framework Convention on Climate Change

**Q.56) Solution (a)**

The Global Risks Report is an annual study published by the World Economic Forum ahead of the Forum's Annual Meeting in Davos, Switzerland. Based on the work of the Global Risk Network, the report describes changes occurring in the global risks landscape from year to year.

**Q.57) 'Saksham' Campaign was in news recently. What is it associated with?**

- a) Fuel Conservation
- b) Ban of Single Use Plastics
- c) Water Conservation
- d) Filing Tax Returns

**Q.57) Solution (a)**

Saksham is a people centric fuel conservation mega campaign of Petroleum Conservation Research Association (PCRA).

**Q.58) 'Ibadat Khana' at Fatehpur Sikri was**

- a) The mosque for the use of Royal Family.
- b) Akbar's private chamber prayer.
- c) The hall in which Akbar held discussions with scholars of various religions.
- d) The room in which the nobles belonging to different religions gathered to discuss religious affairs

**Q.58) Solution (c)**

The Ibādat Khāna (House of Worship) was a meeting house built in 1575 CE by the Mughal Emperor Akbar (r. 1556–1605) at Fatehpur Sikri to gather spiritual leaders of different religious grounds so as to conduct a discussion on the teachings of the respective religious leaders.



**Q.59) 'Pin Valley National Park' is located in**

- a) Ladakh
- b) Himachal Pradesh
- c) Arunachal Pradesh
- d) Jammu & Kashmir

**Q.59) Solution (b)**

Pin Valley National Park is a National park of India located within the Lahaul and Spiti district, in the state of Himachal Pradesh.

**Q.60) Consider the following statements with respect to 'STARS' Scheme.**

1. It is aimed at promoting translational, India-centric research in Sciences.
2. It is implemented and managed by Indian Institute of Science (IISc), Bangalore.

**Select the correct statements**

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

**Q.60) Solution (c)**

Scheme for Transformational and Advanced Research in Sciences (STARS) for promoting translational, India-centric research in Sciences, to be implemented and managed by Indian Institute of Science (IISc), Bangalore.

With the key objective of supporting socially relevant research, the following 6 basic thrust areas have been identified: Physics, Chemistry, Biological Sciences, Nanosciences, Data Sciences & Mathematics and Earth Sciences.

**Q.61) Consider the following statements with respect to 'IndARC'**

1. It is India's first underwater moored observatory.
2. It is located in the Kongsfjorden fjord, half way between Norway and the North Pole.

**Select the correct statements**

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

**Q.61) Solution (c)**

IndARC is India's first underwater moored observatory in the Arctic region. It was deployed in 2014 at Kongsfjorden fjord, Svalbard, Norway which is midway between Norway and North Pole. Its research goal is to study the Arctic climate and its influence on the monsoon.

**Q.62) 'TrueNat' is associated with which of the following diseases?**

- a) Malaria
- b) Polio
- c) Tuberculosis
- d) HIV/AIDS

**Q.62) Solution (c)**

World Health Organization has endorsed TrueNat, an indigenous molecular diagnostic tool for tuberculosis (TB) diagnosis. The TrueNat TB test is a new molecular test that can diagnosis TB in one hour as well as testing for resistance to the drug rifampicin. It has been developed by the Indian firm MolBio Diagnostics Pvt Ltd Goa.

**Q.63) Consider the following statements with respect to 'Women, Business and the Law (WBL)' Project**

1. It collects unique data on the laws and regulations that restrict women's economic opportunities.
2. It is a World Bank Group Project.

**Select the correct statements**

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

**Q.63) Solution (c)**

Women, Business and the Law (WBL) is a World Bank Group project collecting unique data on the laws and regulations that restrict women's economic opportunities. Since 2009, Women, Business and the Law has enhanced the study of gender equality and informed discussions on improving women's economic opportunities and empowerment. The data offers objective and measurable benchmarks for global progress toward gender equality. Comparable across economies, the data is useful for research and policy discussions on improving women's economic opportunities.

**Q.64) 'HS Code' is used for**

- a) Taxation
- b) Migration
- c) Rise in Sea Level
- d) Forest Fires

**Q.64) Solution (a)**

HS code are used by Customs authorities, statistical agencies, and other government regulatory bodies, to monitor and control the import and export of commodities.

HSN classification is widely used for taxation purposes by helping to identify the rate of tax applicable to a specific product in a country that is under review. It can also be used in calculations that involve claiming benefits.

**Q.65) 'Hormuz Peace Initiative' is led by**

- a) Jordan
- b) Iran
- c) Oman
- d) USA

**Q.65) Solution (b)**

The initiative aims to stabilise the Strait of Hormuz, the gateway for a significant amount of global oil supplies and is led by Iran.

**Q.66) Consider the following statements with respect to 'Jhum cultivation'**

1. It is the process of growing crops by first clearing the land of trees and vegetation and burning them thereafter.
2. IT is particularly practiced in the northeastern States of India.

**Select the correct statements**

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

**Q.66) Solution (c)**

Jhum cultivation, also known as the slash and burn agriculture, is the process of growing crops by first clearing the land of trees and vegetation and burning them thereafter. The burnt soil contains potash which increases the nutrient content of the soil. Tribal groups in the northeastern Indian states of Arunachal Pradesh, Meghalaya, Mizoram and Nagaland and the Bangladeshi districts of Rangamati, Khagrachari, Bandarban and Sylhet refer to slash-and-burn agriculture as jhum or jhoom cultivation.

**Q.67) 'Katchchativu island' is administered by**

- a) Sri Lanka
- b) India
- c) Bangladesh
- d) Myanmar

**Q.67) Solution (a)**

It is an uninhabited island administered by Sri Lanka and was a disputed territory claimed by India until 1976. The island is located between Neduntheevu, Sri Lanka and Rameswaram, India and has been traditionally used by both Sri Lankan Tamil and Tamil Nadu fishermen. In 1974 India recognized Sri Lankan ownership of the island on a conditional agreement.

**Q.68) Consider the following statements with respect to 'K4' missiles**

1. It is a 3,500 km strike range nuclear-capable missile.
2. It is an underwater missile that is being developed by India's submarine force.

**Select the correct statements**

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

**Q.68) Solution (c)**

It is a 3,500 kilometre range nuclear capable missile that can be launched from a submarine.

The missile is being developed by India's Defence Research and Development Organisation (DRDO) and is to be fitted into the indigenously built Arihant-class nuclear-powered submarines of the Indian Navy.

**Q.69) 'Myitsone Dam' is associated with which of the following countries?**

- a) Bhutan
- b) Nepal
- c) Myanmar
- d) Thailand

**Q.69) Solution (c)**

The Myitsone Dam is a large dam and hydroelectric power development project which was planned to be built in Myanmar (aka Burma). The proposed construction site is at the confluence of the Mali and N'mai rivers and the source of the Irawaddy River (Ayeyawady River) in northern Burma. As of 2017 the project is suspended, but the Chinese in 2019 are trying to revive the dam.

**Q.70) 'Kyaukpyu' was in news recently. Where is it located?**

- a) Thailand
- b) Myanmar
- c) Indonesia
- d) Malaysia

**Q.70) Solution (b)**

It is a major town in Rakhine State, in western Myanmar. It is located on the north western corner of Yanbye Island on Combermere Bay, and is 250 miles (400 km) north-west of Yangon. It is the principal town of Kyaukpyu Township and Kyaukpyu District. The town is situated on a superb natural harbor which connects the rice trade between Calcutta and Yangon.

**Q.71) 'Global Social Mobility Index' is released by**

- a) World Economic Forum
- b) World Bank
- c) World Trade Organization
- d) World Health Organization

**Q.71) Solution (a)**

World Economic Forum's Global Social Mobility Index ranks 82 countries on their citizens' ability to fulfill their potential regardless of their socio-economic background.

The index ranks economies across five dimensions: health, education, technology access, work (in terms of opportunities, conditions and fair wages), and protection and institutions.

Germany is the most socially mobile country among the G7, ranking 11th overall, followed by France (12th), Canada (14th), Japan (15th), the United Kingdom (21st), the United States (27th) and Italy (34th).

Nordic countries, including Denmark, Finland, Norway, Sweden and Iceland, have the best social mobility scores.

Among the world's large emerging economies, Russia ranks 39th, followed by China (45th), Brazil (60th), India (76th) and South Africa (77th).

**Q.72) Consider the following statements with respect to 'Reciprocating territory'**

1. Execution of decrees passed by Courts in reciprocating territory", provides the law on the subject of execution of decrees of Courts in India by foreign Courts and vice versa.
2. It is notified under Section 44A of the Civil Procedure Code, 1908.

**Select the correct statements**

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

**Q.72) Solution (c)**

Ministry of Law and Justice issued an Extraordinary Gazette Notification, declaring the United Arab Emirates to be a “reciprocating territory” under Section 44A of the Civil Procedure Code, 1908. The notification also declared a list of courts in the UAE to be “superior Courts” under the same section.

The decision is believed to help bring down the time required for executing decrees between the two countries. Indian expatriates in the UAE would no longer be able to seek safe haven in their home country if they are convicted in a civil case in the UAE.

Apart from Dubai, the other countries declared to be “reciprocating territories” are: United Kingdom, Singapore, Bangladesh, Malaysia, Trinidad & Tobago, New Zealand, the Cook Islands (including Niue) and the Trust Territories of Western Samoa, Hong Kong, Papua New Guinea, Fiji, Aden.

Essentially, orders passed by certain designated courts from a ‘reciprocating territory’ can be implemented in India, by filing a copy of the decree concerned in a District Court here. The courts so designated are called ‘superior Courts’.

Section 44A, titled “Execution of decrees passed by Courts in reciprocating territory”, provides the law on the subject of execution of decrees of Courts in India by foreign Courts and vice versa.

“Reciprocating territory” means any country or territory outside India which the Central Government may, by notification in the Official Gazette, declare to be a reciprocating territory for the purposes of this section; and “superior Courts”, with reference to any such territory, means such Courts as may be specified in the said notification.”

S.44A (1) provides that a decree passed by “a superior Court” in any “reciprocating territory” can be executed in India by filing a certified copy of the decree in a District Court, which will treat the decree as if it has been passed by itself.

According to Explanation-2, the scope of the Section is restricted to decrees for payment of money, not being sums payable “in respect of taxes or other charges of a like nature or in respect of a fine or other penalty”.

It also cannot be based on an arbitration award, even if such an award is enforceable as a decree or judgment.

**Q.73) Which of the following species of locusts are found in India?**

1. Desert locust

2. Migratory locust
3. Bombay Locust
4. Tree locust

**Select the correct code:**

- a) 1, 2 and 3
- b) 2, 3 and 4
- c) 1, 3 and 4
- d) All of the above

**Q.73) Solution (d)**

Locusts are a group of short-horned grasshoppers that multiply in numbers as they migrate long distances in destructive swarms. Only four species of locusts are found in India: Desert locust (*Schistocerca gregaria*), Migratory locust (*Locusta migratoria*), Bombay Locust (*Nomadacris succincta*) and Tree locust (*Anacridium* sp.). The desert locust is regarded as the most important in India as well as internationally.

The swarms devour leaves, flowers, fruits, seeds, bark and growing points, and also destroy plants by their sheer weight as they descend on them in massive numbers.

India has a locust control and research scheme that is being implemented through the Locust Warning Organisation (LWO), established in 1939 and amalgamated in 1946 with the Directorate of Plant Protection Quarantine and Storage (PPQS) of the Ministry of Agriculture, according to the PPQS. The LWO's responsibility is monitoring and control of the locust situation in Scheduled Desert Areas, mainly in Rajasthan and Gujarat, and partly in Punjab and Haryana.

India is most at risk of a swarm invasion just before the onset of the monsoon. The swarms usually originate in the Arabian Peninsula and the Horn of Africa.

**Q.74) 'World Economic Situation and Prospects (WESP)' report is published by**

1. United Nations Department of Economic and Social Affairs (UNDESA)
2. United Nations Conference on Trade and Development (UNCTAD)
3. World Economic Forum (WEF)

**Select the correct code:**

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



- d) All of the above

**Q.74) Solution (a)**

The report is a joint product of the United Nations Department of Economic and Social Affairs (UN/DESA), the United Nations Conference on Trade and Development (UNCTAD) and the five United Nations regional commissions (Economic Commission for Africa (ECA), Economic Commission for Europe (ECE), Economic Commission for Latin America and the Caribbean (ECLAC), Economic and Social Commission for Asia and the Pacific (ESCAP) and Economic and Social Commission for Western Asia (ESCWA)).

**Q.75) Consider the following statements with respect to 'Dedicated Freight Corridor Corporation of India Limited (DFCCIL)'**

1. It is a PSU corporation run by the Ministry of Railways.
2. It is a statutory body.

**Select the correct statements**

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

**Q.75) Solution (a)**

The Dedicated Freight Corridor Corporation of India Limited (DFCCIL) is a Public Sector Undertaking (PSU) corporation run by government of India's Ministry of Railways to undertake planning, development, and mobilisation of financial resources and construction, maintenance and operation of the Dedicated Freight Corridors. The DFCCIL was registered as a company under the Companies Act 1956 in 2006.

It is both enabler and beneficiary of other key Government of India schemes, such as and Industrial corridor, Make in India, Startup India, Standup India, Sagarmala, Bharatmala, UDAN-RCS, Digital India, BharatNet.

**Q.76) The US-France Tarrif Dispute' which was in news recently is associated with**

- a) Fisheries
- b) Agriculture

- c) Digital Revenue
- d) Solar Energy

**Q.76) Solution (c)**

France imposed a 3 per cent tax on digital revenue earned in the country by tech firms having sales of more than EUR 750 million globally or more than EUR 25 million in France.

American tech giants, such as Google, Amazon, and Apple were hit by the levies.

In retaliation, the Trump administration threatened to place tariffs of up to 100 per cent on USD 2.4 billion of French imports including wine, cheese, and lipstick.

Internationally, efforts have been underway to find out ways to tax tech revenues, since tech companies often pay little tax in countries in which they are not physically present, thanks to older tax regimes.

Apart from France, other countries such as Austria and Italy have introduced plans to tax online sales and advertising revenues. Canada and the UK have also been exploring possibilities to reform their policies.

**Read More - <https://indianexpress.com/article/explained/explained-what-is-the-us-france-tariff-dispute-over-tech-firms-6228189/>**

**Q.77) Consider the following statements with respect to a newly discovered virus, called as 'Wuhan Virus'.**

1. It causes pneumonia and then doesn't respond to antibiotic treatment.
2. It is very similar to the SARS Virus which was first identified in the Guangdong province in China.

**Select the correct statements**

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

**Q.77) Solution (c)**

A new Chinese coronavirus, a cousin of the SARS virus, has infected hundreds since the outbreak began in Wuhan, China.

The first cases emerged in Wuhan in central China's Hubei province.

It causes pneumonia and then doesn't respond to antibiotic treatment

Severe Acute Respiratory Syndrome, also known as SARS, is the other coronavirus that can cause more severe symptoms. First identified in the Guangdong province in southern China, according to the WHO, it causes respiratory problems but can also cause diarrhea, fatigue, shortness of breath, respiratory distress and kidney failure. Depending on the patient's age, the death rate with SARS ranged from 0-50% of the cases, with older people being the most vulnerable.

Read More - <https://indianexpress.com/article/explained/wuhan-virus-mystery-virus-that-has-killed-6-triggered-worry-6228950/>

**Q.78) Consider the following statements with respect to 'Bilateral Investment Treaties (BITs)'**

1. The world's first BIT was signed between USA and Russia.
2. BITs were initiated by the Government of India in the mid-90s.

**Select the correct statements**

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

**Q.78) Solution (b)**

A BIT is entered into between two states, with the aim to protect investments made by a national of either of the states into the other. It affords extra rights to investors and gives them an effective remedy for unlawful actions by host states that cause damage to their investments. The benefit for a foreign investor is that they can feel secure that their investments will be protected. The benefit for a state is that such measures encourage foreign direct investment.

The world's first BIT was signed on November 25, 1959 between Pakistan and Germany.

BITs were embraced by the Government of India in the mid-90s.

**Q.79) Which of the following countries is the largest producer of Sugar in the world?**

- a) India
- b) China

- c) Brazil
- d) USA

**Q.79) Solution (c)**

Brazil is the largest producer and exporter of sugar, and claims Indian subsidies are inconsistent with global trade rules.

**Read More -** <https://www.thehindu.com/news/national/india-brazil-to-sign-strategic-action-plan/article30618041.ece>

**Q.80) 'Sittwe Port' is located in**

- a) Indonesia
- b) Thailand
- c) Myanmar
- d) Philippines

**Q.80) Solution (c)**

Sittwe Port is a deepwater port constructed by India in 2016 at Sittwe, the capital of Rakhine State in Myanmar, on the Bay of Bengal.

**Q.81) The Democracy Index is published by**

- a) Economist Intelligence Unit
- b) Heritage Foundation
- c) United Nations
- d) World Economic Forum

**Q.81) Solution (a)**

The Democracy Index is an index compiled by the Economist Intelligence Unit (EIU), a UK-based company.

**Q.82) Consider the following statements with respect to 'INTERPOL'**

1. 'INTERPOL Notices' are international requests for cooperation or alerts allowing police in member countries to share critical crime-related information.
2. India joined the INTERPOL in 1949.

**Select the correct statements**

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

**Q.82) Solution (c)**

INTERPOL Notices are international requests for cooperation or alerts allowing police in member countries to share critical crime-related information.

Notices are published by the General Secretariat at the request of a National Central Bureau and are made available to all our member countries. Notices can also be used by the United Nations, International Criminal Tribunals and the International Criminal Court to seek persons wanted for committing crimes within their jurisdiction, notably genocide, war crimes, and crimes against humanity.

India is one of the oldest members of Interpol, having joined the organization in 1949.

**Q.83) 'National Start-up Advisory Council' will be chaired by**

- a) Minister for Commerce & Industry
- b) NITI Aayog, Chairman
- c) Minister of Skill Development
- d) Cabinet Secretary

**Q.83) Solution (a)**

**National Start-up Advisory Council**

- It will suggest measures to foster a culture of innovation amongst citizens and students in particular.
- It will support creative and innovative ideas through incubation and research and development to transform them into valuable products.
- It will also suggest measures to facilitate public organizations to assimilate innovation with a view to improving public service delivery.

- It will be chaired by Minister for Commerce & Industry.
- It will consist of the non-official members, to be nominated by Central Government, from various categories like founders of successful startups, veterans who have grown and scaled companies in India etc.

**Q.84) Consider the following statements with respect to 'White Rhinoceros'**

1. It is only found in Africa and South East Asia.
2. The white rhinoceros consists of two subspecies: the southern white rhinoceros and the northern white rhinoceros.

**Select the correct statements**

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

**Q.84) Solution (b)**

The white rhinoceros or square-lipped rhinoceros (*Ceratotherium simum*) is the largest extant species of rhinoceros. It has a wide mouth used for grazing and is the most social of all rhino species. The white rhinoceros consists of two subspecies: the southern white rhinoceros, with an estimated 19,682–21,077 wild-living animals in the year 2015, and the much rarer northern white rhinoceros.

It is only found in Africa.

**Q.85) Consider the following statements with respect to 'Youth Co:Lab'**

1. It aims to establish a common agenda for Asia-Pacific countries to invest in and empower youth to accelerate implementation of the Sustainable Development Goals (SDGs) through leadership, social innovation and entrepreneurship.
2. It was co-created in 2017 by the United Nations Development Programme (UNDP) and the Citi Foundation.

**Select the correct statements**

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

- d) Neither 1 nor 2

**Q.85) Solution (c)**

Co-created in 2017 by the United Nations Development Programme (UNDP) and the Citi Foundation, Youth Co:Lab aims to establish a common agenda for Asia-Pacific countries to invest in and empower youth to accelerate implementation of the Sustainable Development Goals (SDGs) through leadership, social innovation and entrepreneurship.

**Q.86) Consider the following statements**

1. The ideals behind the Preamble to India's Constitution were laid down by Jawaharlal Nehru's Objectives Resolution.
2. The Preamble acts as an aid during the interpretation of Articles when language is found ambiguous.

**Select the correct statements**

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

**Q.86) Solution (c)**

The ideals behind the Preamble to India's Constitution were laid down by Jawaharlal Nehru's Objectives Resolution, adopted by the Constituent Assembly on January 22, 1947.

Although not enforceable in court, the Preamble states the objects of the Constitution, and acts as an aid during the interpretation of Articles when language is found ambiguous.

**Read More - <https://indianexpress.com/article/explained/the-preamble-what-does-it-say-and-what-does-it-mean-to-india-and-its-constitution-6232014/>**

**Q.87) The Tashkent Declaration was a peace agreement between India and**

- a) China
- b) Pakistan
- c) England
- d) Sri Lanka

**Q.87) Solution (b)**

The Tashkent Declaration was a peace agreement between India and Pakistan signed on 10 January 1966 that resolved the Indo-Pakistani War of 1965. Peace had been achieved on 23 September by the intervention of the external powers that pushed the two nations to cease fire, afraid the conflict could escalate and draw in other powers.

**Q.88) 'Custodian of Enemy Property for India' is under the aegis of**

- a) Ministry of External Affairs
- b) Ministry of Home Affairs
- c) Ministry of Law and Justice
- d) Ministry of Minority Affairs

**Q.88) Solution (b)**

It is under the Ministry of Home Affairs.

**Q.89) Consider the following statements with respect to 'Wollemi Pines'**

1. It is only found in the Arctic region.
2. It is classified as 'critically endangered' on the IUCN's Red List.

**Select the correct statements**

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

**Q.89) Solution (b)**

Wollemia is a genus of coniferous tree in the family Araucariaceae. Wollemia was known only through fossil records until the Australian species *Wollemia nobilis* was discovered in 1994 in a temperate rainforest wilderness area of the Wollemi National Park in New South Wales. The genus is named after the National Park.

The oldest fossil of the Wollemi tree has been dated to 200 million years ago.



The Wollemi pine is classified as critically endangered (CR) on the IUCN's Red List, and is legally protected in Australia.

**Q.90) 'Global Investment Trends Monitor' Report' is released by**

- a) UNCTAD
- b) World Economic Forum
- c) World Trade Organization
- d) World Bank

**Q.90) Solution (a)**

It is released by UN Conference on Trade and Development (UNCTAD).

**Q.91) 'Operation Alberich' is associated with which of the following countries?**

- a) Germany and France
- b) Germany and France
- c) UK and USA
- d) UK and USA

**Q.91) Solution (a)**

Operation Alberich (German: Unternehmen Alberich) was the code name of a German military operation in France during the First World War.

**Q.92) Consider the following statements with respect to 'Dhanush gun system'**

1. It is an improved version of the FH-77B 155 mm/39-calibre field howitzers that were originally produced by AB Bofors of Sweden.
2. It is a product of joint efforts by the Ordnance Factory Board (OFB) and the Indian Army with contributions from DRDO.

**Select the correct statements**

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

**Q.92) Solution (c)**

Dhanush, a product of joint efforts by the OFB and the Indian Army with contributions from DRDO and several other government and private enterprises, is an improved version of the FH-77B 155 mm/39-calibre field howitzers that were originally produced by AB Bofors of Sweden, which is now BAE Systems.

The 155 mm/45-calibre gun system is a towed Howitzer designed indigenously by the Ordnance Factory Board (OFB). It is the first long-range artillery gun to be produced in India and has been billed as a success of the government's Make in India initiative.

**Q.93) Consider the following statements with respect to 'Indian National Army (INA)'**

1. The army was first formed in 1942 under Mohan Singh, by Indian prisoners of war of the British-Indian Army captured by Japan in the Malayan campaign and at Singapore.
2. INA fought along with the Imperial Japanese Army against the British and Commonwealth forces in the Battles of Imphal and Kohima.

**Select the correct statements**

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

**Q.93) Solution (c)**

The Indian National Army was an armed force formed by Indian nationalists in 1942 in Southeast Asia during World War II. Its aim was to secure Indian independence from British rule. It formed an alliance with Imperial Japan in the latter's campaign in the Southeast Asian theatre of WWII. The army was first formed in 1942 under Mohan Singh, by Indian PoWs of the British-Indian Army captured by Japan in the Malayan campaign and at Singapore. This first INA collapsed and was disbanded in December that year after differences between the INA leadership and the Japanese military over its role in Japan's war in Asia. It was revived under the leadership of Subhas Chandra Bose after his arrival in Southeast Asia in 1943. The army was declared to be the army of Bose's Arzi Hukumat-e-Azad Hind (the Provisional Government of Free India). Under Bose's leadership, the INA drew ex-prisoners and thousands of civilian volunteers from the Indian expatriate population in Malaya (present-day Malaysia) and Burma. This second INA fought along with the Imperial Japanese Army against the British and

Commonwealth forces in the campaigns in Burma: at Imphal and Kohima, and later against the Allied retaking of Burma.

**Q.94) Consider the following statements with respect to 'Vakataka dynasty'**

1. They were contemporaneous with the Satavahanas.
2. The Vakataka rulers followed the Shaiva sect of Hinduism.

**Select the correct statements**

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

**Q.94) Solution (b)**

The Vakataka Empire was a dynasty from the Indian subcontinent that originated from the Deccan in the mid-3rd century CE. Their state is believed to have extended from the southern edges of Malwa and Gujarat in the north to the Tungabhadra River in the south as well as from the Arabian Sea in the west to the edges of Chhattisgarh in the east.

They were the most important successors of the Satavahanas in the Deccan and contemporaneous with the Guptas in northern India.

The Vakataka rulers followed the Shaiva sect of Hinduism while the Guptas were staunch Vaishnavites.

**Read More - <https://indianexpress.com/article/explained/nagardhan-excavation-site-nagpur-excavation-vakataka-dynasty-1500-year-old-relics-6236915/>**

**Q.95) 'Ganga-Volga Dialogue' was held between India and**

- a) Japan
- b) Russia
- c) Israel
- d) France

**Q.95) Solution (b)**

The Ganga-Volga Dialogue was held between India and Russia in New Delhi. The dialogue focused in providing interface between the civilizations of the countries.

**Q.96) Which of the following states does not have a 'Legislative Council'?**

- a) Maharashtra
- b) Karnataka
- c) Telangana
- d) Gujarat

**Q.96) Solution (d)**

Besides Andhra Pradesh, five other states have Vidhan Parishads — Bihar (58 members), Karnataka (75), Maharashtra (78), Telangana (40), UP (100). Jammu and Kashmir had a Council until the state was bifurcated into the Union Territories of J&K and Ladakh.

**Q.97) Consider the following statements with respect to 'Outer Space Treaty'**

1. The treaty bans military activities within space and weaponization of space.
2. India is party to the treaty.

**Select the correct statements**

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

**Q.97) Solution (b)**

India is a signatory of the international treaty on space, the 1967 Outer Space Treaty. According to the treaty, mass destruction of weapons in outer space are alone prohibited.

The Outer Space Treaty does not ban military activities within space, military space forces, or the weaponization of space, with the exception of the placement of weapons of mass destruction in space.

**Q.98) 'Global Talent Competitiveness Index' is compiled by**

- a) Economist Intelligence Unit
- b) INSEAD
- c) World Economic Forum
- d) London School of Economics

**Q.98) Solution (b)**

The GTCI report compiled by INSEAD in collaboration with human resource firm Addeco and Google.

**Q.99) Consider the following statements with respect to 'Polycrack technology'**

1. It converts multiple feed stocks into hydrocarbon liquid fuels, gas, carbon and water.
2. It operates at a low temperature of less than 350 degrees Celsius.

**Select the correct statements**

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

**Q.99) Solution (c)**

Polycrack is world's first patented heterogeneous catalytic process which converts multiple feed stocks into hydrocarbon liquid fuels, gas, carbon and water.

Polycrack's strength includes not requiring pre-segregation of waste, allowing waste as collected to be directly used. With a high moisture tolerance, drying of waste is not required

**FEATURES OF POLYCRACK**

- Low Operating Temperature < 350oC
- High Moisture Tolerant upto 50%
- Atmospheric Pressure Reactor
- Unique Multifunctional Catalytic Process
- Multiple Heterogeneous Mingled Feed Stock Capability
- Consistent Fuel Quality
- No pre-segregation of material since segregation completed during processing
- Entire unit is enclosed, no dust or smoke pollution
- Modular system that can be upgraded based on garbage generation

**Q.100) 'Zoological Survey of In-dia (ZSI)' is installing a Bio rock structure off the Mithapur coast in the Gulf of Kutch. Consider the following statements**

1. The technology works by passing a small amount of electrical current through electrodes in the water.
2. The technology helps corals, including the highly sensitive branching corals, to counter the threats posed by global warming.

**Select the correct statements**

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

**Q.100) Solution (c)**

The Zoological Survey of India (ZSI), with help from Gujarat's forest department, is attempting for the first time a process to restore coral reefs using biorock or mineral accretion technology. A biorock structure was installed one nautical mile off the Mithapur coast in the Gulf of Kachchh.

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

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

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

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

The technology helps corals, including the highly sensitive branching corals, to counter the threats posed by global warming.

**Q.101) Consider the following statements**

1. India has recently banned the import of crude palm oil (CPO) and refined, bleached and deodorised (RBD) palm oil.
2. Palm oil the cheapest edible oil available naturally.

**Select the correct statements**

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

**Q.101) Solution (b)**

India has cut import duty on crude palm oil (CPO) and refined, bleached and deodorised (RBD) palm oil, and also moved RBD oil from the “free” to the “restricted” list of imports.

Palm oil the cheapest edible oil available naturally. Its inert taste makes it suitable for use in foods ranging from baked goods to fried snacks. It stays relatively stable at high temperatures, and is therefore suitable for reuse and deep frying. It is the main ingredient in vanaspati (hydrogenated vegetable oil).

Indonesia and Malaysia together produce 85% of the world's palm oil, and India is among the biggest buyers. Both Indonesia and Malaysia produce refined palm oil; however, Malaysia's refining capacity equals its production capacity — this is why Malaysia is keen on exporting refined oil. Indonesia, on the other hand, can supply CPO, which would allow India to utilise its full refining capacity.

**Q.102) NASA's series of Great Observatories satellites include**

1. Hubble Space Telescope (HST)
2. Spitzer Space Telescope (SST)
3. Chandra X-ray Observatory (CXO)

**Select the correct code:**

- a) 1 and 2
- b) 2 and 3
- c) 1 and 3
- d) All of the above

**Q.102) Solution (d)**

NASA's series of Great Observatories satellites are four large, powerful space-based astronomical telescopes launched between 1990 and 2003. They were built with different technology to examine specific wavelength/energy regions of the electromagnetic spectrum: gamma rays, X-rays, visible and ultraviolet light, and infrared light. Three remain operational as of 2019.

- Hubble Space Telescope
- Gamma ray program
- Chandra X-ray Observatory history
- Spitzer history

**Q.103) 'Kuno-Palpur Wildlife Sanctuary' is located in**

- a) Maharashtra
- b) Madhya Pradesh
- c) Rajasthan
- d) Gujarat

**Q.103) Solution (b)**

Kuno National Park is a protected area in Madhya Pradesh that received the status of national park in 2018. The protected area was established in 1981 as a wildlife sanctuary with an area of 344.686 km<sup>2</sup> (133.084 sq mi) in the Sheopur and Morena districts. It was also known as Kuno-Palpur and Palpur-Kuno Wildlife Sanctuary. It is part of the Kathiawar-Gir dry deciduous forests ecoregion.

Supreme Court allowed the introduction of African Cheetahs to a suitable habitat in India. It said the animal could be brought to Madhya Pradesh's Kuno-Palpur Wildlife Sanctuary or any other part of India after a detailed study.

**Q.104) 'Nauradehi Wildlife Sanctuary' is located in**

- a) Maharashtra
- b) Madhya Pradesh
- c) Rajasthan
- d) Gujarat



**Q.104) Solution (b)**

Nauradehi Wildlife Sanctuary, covering about 1,197 km<sup>2</sup> (462 sq mi), is the largest wildlife sanctuary of Madhya Pradesh.

The NTCA had first filed a plea in 2010 requesting permission to introduce African Cheetahs from Namibia as the animal has become extinct in India. But the top court declined permission for it in 2013, calling the animal a “foreign species”.

On 22 February 2019, the NTCA had told the apex court that African Cheetahs to be translocated to India from Namibia will be kept at the Nauradehi Wildlife Sanctuary in Madhya Pradesh.

**Q.105) ‘Nandur Madhmeshwar’ Bird Sanctuary is located in**

- a) Karnataka
- b) Maharashtra
- c) Goa
- d) Madhya Pradesh

**Q.105) Solution (b)**

Nandur Madhmeshwar Bird Sanctuary is located at Niphad Tehsil of Nashik District, known as the Bharatpur of Maharashtra.

Maharashtra gets its first Ramsar site (Nandur Madhmeshwar).

Read More - <https://pib.gov.in/newsite/PrintRelease.aspx?relid=197705>

**Q.106) Consider the following statements with respect to ‘SISDP Project’**

1. It is a national initiative of preparing basic spatial layers useful in planning process for local self-governance.
2. National Remote Sensing Centre (NRSC) is the lead centre to execute the project in collaboration with various State Remote Sensing Centres.

**Select the correct statements**

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

d) Neither 1 nor 2

**Q.106) Solution (c)**

Space based Information Support for Decentralised Planning at Panchayat level (SIS-DP) is a national initiative of preparing basic spatial layers useful in planning process at grassroot levels as per 73rd, 74th constitutional amendment of local self governance. NRSC is the lead centre to execute the project in collaboration with various State Remote Sensing Centres. For the first time an all India mosaic of high resolution ortho products and DEM from Cartosat-1 and Resourcesat data was prepared and basic thematic layers at 1:10K scale viz. LU/LC, drainage, settlements, transportation network, slope and aspect were prepared and relevant collateral data useful in planning exercise was also integrated. Under Phase II, this project shall be implemented shortly with an enhanced scope of updating geodatabase with latest high resolution remote sensing data and spatial data analytics to generate simple & ready to use geospatial products and services at Grampanchayats. The geodatabase, products and services prepared under this project are expected to be disseminated through Bhuvan geoportal.

**Q.107) Consider the following statements with respect to 'Bodoland' Region.**

1. It lies to the south of Brahmaputra in Assam.
2. Bodoland Territorial Area District (BTAD) includes 5 districts which border Bangladesh.

**Select the correct statements**

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

**Q.107) Solution (d)**

Bodoland, officially the Bodoland Territorial Council (BTC), is an autonomous region in the state of Assam, India. It made up of four districts on the north bank of the Brahmaputra river, by the foothills of Bhutan and Arunachal Pradesh. The region is predominantly inhabited by the indigenous Bodo people and other indigenous communities of Assam. The official map of Bodoland includes four districts of BTAD recognised by the Government of India.

**Q.108) 'Auschwitz' was in news recently. Where is it located?**

- a) Germany
- b) Czech Republic
- c) Poland
- d) Italy

**Q.108) Solution (c)**

The Auschwitz concentration camp (Konzentrationslager Auschwitz) was a complex of over 40 concentration and extermination camps operated by Nazi Germany in occupied Poland during World War II and the Holocaust. It consisted of Auschwitz I, the main camp (Stammlager) in Oświęcim; Auschwitz II–Birkenau, a concentration and extermination camp built with several gas chambers; Auschwitz III–Monowitz, a labor camp created to staff a factory for the chemical conglomerate IG Farben; and dozens of subcamps. The camps became a major site of the Nazis' Final Solution to the Jewish Question.

**Q.109) Consider the following statements with respect to 'World Sustainable Development Summit (WSDS)'**

1. It is the annual flagship event of The Energy and Resources Institute (TERI)
2. The inaugural event was held in 2014.

**Select the correct statements**

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

**Q.109) Solution (a)**

The World Sustainable Development Summit (WSDS) is The Energy and Resources Institute's annual event. The theme of the 2020 edition of the Summit is 'Towards 2030 Goals: Making the Decade Count'. It has in its journey of eighteen years (2001- 2019) become a focal point for global leaders and practitioners to congregate on a single platform to discuss and deliberate over climatic issues of universal importance. The Summit series has emerged as the premier international event on sustainability which focusses on the global future, but with an eye on the actions in the developing world which could bend our common future.

**Q.110) 'Shantilal Shah Committee' is associated with**

- a) Abortion
- b) MGNREGA
- c) Sedition
- d) Traditional Medicines

**Q.110) Solution (a)**

The Shah Committee was appointed by the Government of India in 1964. The Committee carried out a comprehensive review of the socio-cultural, legal and medical aspects of abortion. The Committee in 1966 recommended legalizing abortion in its report to prevent wastage of women's health and lives on both compassionate and medical grounds.

**Q.111) 'Sampriti' is a joint military exercise between India and**

- a) Sri Lanka
- b) Bangladesh
- c) Maldives
- d) Thailand

**Q.111) Solution (b)**

It is an Indo- Bangladesh joint military exercise.

**Q.112) Consider the following statements with respect to 'Advisory Board for Banking Frauds (ABBF)'**

1. It functions as the first level of examination of all large fraud cases before recommendations or references are made to the investigative agencies by the respective public sector banks (PSBs).
2. It has been constituted by the 'Central Vigilance Commission (CVC)'.

**Select the correct statements**

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

**Q.112) Solution (c)**

The Central Vigilance Commission (CVC) has constituted Advisory Board for Banking Frauds (ABBF) to examine bank fraud over Rs 50 crore and recommend action.

The ABBF, formed in consultation with the RBI, would function as the first level of examination of all large fraud cases before recommendations or references are made to the investigative agencies by the respective public sector banks (PSBs).

The four-member board's jurisdiction would be confined to those cases involving the level of officers of General Manager and above in the PSB in respect of an allegation of a fraud in a borrowal account.

The Board consists of four members including chairman. The tenure of the Chairman and members would be for a period of two years.

**Q.113) Consider the following statements with respect to 'Prabhavatigupta'**

1. She was the daughter of Samudragupta.
2. She was queen and regent of the Vakataka dynasty.

**Select the correct statements**

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

**Q.113) Solution (b)**

Prabhavatigupta (fl. 405), was queen and regent of the Vakataka dynasty. She was the queen consort of Rudrasena II, and ruled as regent during the minority of her sons, Divakarasena, Damodarasena, and Pravarasena, from 385 until 405.

Her father was Chandragupta II of the Gupta Empire and her mother was Kuberanaga. She married Rudrasena II of the Vakataka.

**Q.114) 'Asiatic cheetah' is now found in**

1. Iran
2. Iraq
3. Afghanistan

**Select the correct statements**

- a) 1 Only
- b) 1 and 2
- c) 1 and 3
- d) 2 and 3

**Q.114) Solution (a)**

The Asiatic cheetah (*Acinonyx jubatus venaticus*), also known as Iranian or Persian cheetah, is a Critically Endangered cheetah subspecies surviving today only in Iran. It once occurred from the Arabian Peninsula and the Near East to the Caspian region, Kyzylkum Desert, Pakistan and India, but has been extirpated there during the 20th century.

**Q.115) The 'Kalahari Desert' covers regions of which of the following countries?**

- 1. South Africa
- 2. Botswana
- 3. Namibia

**Select the correct statements**

- a) 1 and 2
- b) 2 and 3
- c) 1 and 3
- d) All of the above

**Q.115) Solution (d)**

The Kalahari Desert is a large semi-arid sandy savanna in Southern Africa extending for 900,000 square kilometres (350,000 sq mi), covering much of Botswana, parts of Namibia and regions of South Africa.

