

Key with Explanation

<p>1</p>	<p>D Sher, Dudhi, Shakkar, Tawa, Barna etc. are tributaries of Narmada river.</p>		<p>micrometer range. They can come from a variety of sources, including cosmetics, clothing, and industrial processes. They may be classified into two types:</p> <ol style="list-style-type: none"> 1. Primary microplastics are manufactured and are a direct result of human material and product use. 2. Secondary microplastics are microscopic plastic fragments derived from the breakdown of larger plastic debris. The Great Pacific Garbage Patch is almost entirely made up of tiny bits of plastic, called microplastics as plastic is not biodegradable, meaning it does not disintegrate-it simply breaks into tinier and tinier pieces, known as microplastics. Microplastics can't always be seen by the naked eye. Even satellite imagery doesn't show a giant patch of garbage. The microplastics of the Great Pacific Garbage Patch can simply make the water look like a cloudy soup. Microplastics are recognized to persist in the environment at high levels, particularly in aquatic and marine ecosystems. Because plastics do not break down for many years, they can be ingested and incorporated into and accumulated in the bodies and tissues of many organisms.
<p>2</p>	<p>A Large and continuous supply of warm and moist air is the most important condition for formation of tropical cyclone. Where coriolis force is zero (like equator), tropical cyclones do not develop. An upper level outflow of air (and not inflow) helps in formation of tropical cyclone.</p>		
<p>3</p>	<p>C Statement 1 is self-explanatory. Statement 2: If the earth was like a horizontal disc (where population lived only on the top surface), the whole world would have sunrise and sunset at the same time. Since it has a curvature, sun's rays are slanted at most locations. However, due to earth's axial tilt Sun is overhead at least one point between the tropics in an year. In summer months (India), it is tropic of cancer or regions near it. In winter months (India), it is the tropic of Capricorn or regions near it.</p>		
<p>4</p>	<p>C The given cities are the capitals of four neighboring countries: Amman is the capital of Jordan Damascus is the capital of Syria Riyadh is the capital of Saudi Arabia Cairo is the capital of Egypt The sequence of the countries from South to North is: Saudi Arabia, Egypt, Jordan and Syria. The sequence of the capitals from South to North is same as the respective countries. Hence, option C is the correct answer. These countries have been in news due to reasons such as falling oil prices, destabilised political scenario etc.</p>		
<p>5</p>	<p>D Microplastics are small plastic particles in the environment that are generally smaller than 1 mm (0.039 in) down to the</p>	<p>6</p> <p>D Corals need to grow in shallow water where sunlight can reach them. Corals depend on the zooxanthellae (algae) that grow inside of them for oxygen and other things, and since these algae needs sunlight to survive, corals also need sunlight to survive. Corals rarely develop in water deeper than 50 meters. Corals need clear water that lets sunlight through; they don't thrive well when the water is opaque. Sediment and plankton can cloud water, which decreases the amount of sunlight that reaches the zooxanthellae.</p>	

	Corals need saltwater to survive and require a certain balance in the ratio of salt to water. This is why corals don't live in areas where rivers drain fresh water into the ocean. Reef-building corals require warm water conditions to survive. Different corals living in different regions can withstand various temperature fluctuations. However, corals generally live in water temperatures of 20-32° C.	11	B Tripura and Meghalaya share border with only 2 states.
7	C Antarctica has nearly 70% all the freshwater stored in it.	12	D Statement 1: A shield volcano on Mars, Olympus Mons, is the largest volcano in the Solar System. <ul style="list-style-type: none"> • It is three times taller than Mount Everest and about five hundred km in diameter. • The surface of Venus is dominated by volcanic features and has more volcanoes than any other planet in the Solar System. • Mercury is quieter as compared to these two planets, but volcanoes do exist on it. Statement 2: There is evidence for the existence of ice, as well as water, on the surface of planets other than earth. <ul style="list-style-type: none"> • In 2012, NASA's Messenger confirmed the discovery of ice in permanently shadowed craters near Mercury planet's North pole. • Astronomers have detected that the atmosphere of Venus as well as of Mars contains water vapour. • But, there isn't any water on the surface of Venus, in form of rivers, lakes or oceans. • New findings from NASA's Mars Reconnaissance Orbiter (MRO) provide the strongest evidence yet that liquid water flows intermittently on present-day Mars.
8	C The 12th edition of the 'Naseem-Al-Bahr' bilateral exercise between the navies of India and Oman was held in Goa. The exercise is held once in every two years between Indian Navy and the Royal Navy of Oman since 1993. The previous edition of the exercise was held in December 2017 in Muscat, Oman. Recently, two naval ships of the Oman Navy arrived in Goa, while the Indian Navy ships Beas and Subhadra will participate in the exercise.	13	A The Western Himalayan Region covers Jammu and Kashmir, Himachal Pradesh and the hill region of Uttarakhand. There is alluvial soil in the valleys of Kashmir, Kullu and Dun, and brown soil in the hills. The valley floors grow rice, while the hilly tracts grow maize in the kharif season. Winter crops are barley, oats, and wheat. The region supports horticulture, especially apple orchards and other temperate fruits such as peaches, apricot, pears, cherry, almond, litchis, walnut, etc. Saffron is
9	C IBGs are brigade-sized, agile, self-sufficient combat formations, which can swiftly launch strikes against an adversary in case of hostilities. Each IBG would be tailor-made based on Threat, Terrain and Task and resources will be allotted based on the three Ts. They need to be light so they will be low on logistics and they will be able to mobilise within 12-48 hrs based on the location.		
10	B China has successfully launched the last Satellite of its BeiDou Navigation Satellite System (BDS), which is a rival for the Global Positioning System (GPS) of the US, to become a major space power. The satellite was launched from the Xichang Satellite Launch center in Sichuan Province.		

	grown in this region. The high altitude alpine pastures, locally known as 'dhoks' or 'margs', are used by the Gujjars, Bakarwals and Gaddis to rear their sheep, goats, cattle and horses. The economy is largely agrarian.	17	A Rooftop solar installations, as opposed to large-scale solar power generation plants, can be installed on roofs of any residential, commercial, institutional and industrial building. As of 18 July, 2019 over 1700 MegaWatts of grid-connected rooftop systems have been installed in India. Government has set a target for installation of Rooftop Solar projects (RTS) of 40,000 MegaWatt (MW) by 2022 in the country including installation of RTS on the rooftop of houses. the addition of 38000 megawatts by 2022 would reduce 45.6 tonnes CO2 per year. Government has set a target for installation of Rooftop Solar projects (RTS) of 40,000 MegaWatt (MW) by 2022 in the country including installation of RTS on the rooftop of houses.
14	B While India is the 2nd largest producer of Silk in the world after China, it is also the largest consumer of silk in the world. The five commercially traded varieties of natural silks are Mulberry, Tropical Tasar, Oak Tasar, Eri and Muga. Silks other than mulberry are all grouped together and called as 'Vanya Silks'. And India is the only country in the world that produces all 5 varieties of silk on commercial scale and holds the global monopoly for production of the famed golden 'Muga' silk. Almost all the Indian States, except Gujarat and Rajasthan are involved in the production of one or the other variety of silk.	18	B India, by virtue of being a member of the International Charter 'Space and Major Disasters' has received satellite data related to the Assam floods from other member nations including France, Russia and China. Initiated by the European Space Agency and the French space agency CNES after the UNISPACE III conference held in Vienna, Austria in July 1999. It is a non-binding charter. It provides for the charitable and humanitarian related acquisition and transmission of space satellite data to relief organizations in the event of major disasters. It officially came into operation on November 1, 2000, after the Canadian Space Agency signed onto the charter on October 20, 2000.
15	B TRAFFIC, the wildlife trade monitoring network, is a joint program of WWF and IUCN. It is the leading nongovernmental organization working globally on trade in wild animals and plants in the context of both biodiversity conservation and sustainable development. It was established in 1976 by the Species Survival Commission of IUCN, principally as a response to the entry into force during the previous year of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES). Traffic aims to ensure that trade in wild plants and animals is not a threat to the conservation of nature. TRAFFIC actively monitors and investigates wildlife trade and provides its information to a diverse audience worldwide, as a basis for effective conservation policies and programmes. This non governmental organization undertakes its activities in close collaboration with governments and the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES).	19	B On May 12, the Prime Minister, Mr. Narendra Modi, announced a special economic package of Rs 20 lakh crore (equivalent to 10% of India's GDP) with the aim of making the country independent against the tough competition in the global supply chain and to help in empowering the poor, labourers, migrants who have been adversely affected by COVID.
16	B Aravalli Ranges		

20	<p>B</p> <p>The Vishakha Guidelines were a set of procedural guidelines for use in India in cases of sexual harassment. They were promulgated by the Indian Supreme Court in 1997 and were superseded in 2013 by The Sexual Harassment of Women at Workplace (Prevention, Prohibition and Redressal) Act, 2013.</p>	<p>found at a depth of about six thousand metres and the closest point of the nodule fields is at a distance of about two thousand five hundred km off the Kanyakumari coast.</p>
21	<p>A</p> <p>Mullaperiyar - Mullayar River and Periyar river both Polavaram - Godavri Kishnaganga - Kishanganga Baglihar - Chenab</p> <p>Mullaperiyar word is derived from Mullayar River and Periyar River, at the confluence of which the dam is located.</p> <p>Indirasagar Polavaram an interstate project on river Godavari has been conceived as a part of recommendations of Godavari Water Disputes Tribunal (GWDT).</p> <p>The Kishanganga Hydroelectric Plant is part of a run-of-the-river hydroelectric scheme that is designed to divert water from the Kishanganga River to a power plant in the Jhelum River basin 450 megawatt Baglihar Hydel Power Project is built on chenab river.</p>	<p>24 C</p> <p>The Atlantic Ocean is the second largest Ocean in the world. The coastline of Atlantic Ocean is highly indented. This irregular and indented coastline provides ideal location for natural harbours and ports. From the point of view of commerce, it is the busiest Ocean. Thriving Atlantic Rim economies is not relates to the Natural harbours and ports. Atlantic Ocean is 'S' shaped. It is flanked by the North and South Americas on the western side, and Europe and Africa on the eastern side.</p>
22	<p>D</p> <p>All the three are mechanisms of metamorphism.</p>	<p>25 D</p> <p>The United States recently announced that the country will withdraw from the major global treaty named Open Skies treaty. The 35-nation treaty allows unarmed surveillance flights over the territories of member countries.</p> <p>US administration also highlighted that Russia has repeatedly violated the terms of the pact. It is expected that the US will pull out formally in six months, based on the withdrawal terms of the treaty. NATO allies and other countries have asked the US to remain in the treaty.</p>
23	<p>C</p> <p>Manganese Nodules is a type of sediment scattered on the ocean floor, consisting mainly of manganese and iron, and usually containing small amounts of copper, nickel and cobalt.</p> <p>Statement 1: Presently, there is no production of cobalt in the country from indigenous ores. The refined production of cobalt is from imported feed material.</p> <p>Cobalt is used in medical treatment and nickel in batteries. Thus, mining for these is of strategic importance as there is no terrestrial source of these metals in India.</p> <p>The nodules on the Indian Ocean bed are</p>	<p>26 B</p> <p>Renewable source of energy: Renewable sources are those which can be generated continuously in nature and are inexhaustible. Following are the renewable sources:</p> <ul style="list-style-type: none"> ● solar energy ● Geo-thermal energy (statement 1 correct) ● Tidal energy ● Wind energy ● Hydropower ● Biomass energy (statement 3 correct) ● Bio-fuels (statement 2 correct) ● Hydrogen

	<p>Following are the non-renewable sources of fossil fuels (coal, petroleum etc)</p> <ul style="list-style-type: none"> • Uranium (statement 4 incorrect) • Thorium 		<ul style="list-style-type: none"> • The land acquisition and all statutory clearances like forest and environmental clearance are also made part of approval of Detailed Project Report (DPR). • With the adoption of EPC mode of execution, it is mandatory to award work only when 90 per cent of the statutory clearances have been obtained, implementing the recommendation of CoE regarding obtaining prior clearances before the commencement of the project.
27	<p>B</p> <p>It is also known as Pakke Tiger reserve. It's in Arunachal Pradesh.</p>		
28	<p>A</p> <p>The International Atomic Energy Agency (IAEA) is an international organization that seeks to promote the peaceful use of nuclear energy, and to inhibit its use for any military purpose, including nuclear weapons. It was established in 1957 as an autonomous international organization within the United Nations system. (North Korea in 2009 had declared that it has developed Nuclear bombs). Hence, statement 2 is not correct. The IAEA headquarters is at the Vienna International Centre in Vienna, Austria. The IAEA is not a party to the NPT but is entrusted with a key verification role under it. Under the NPT, the IAEA has a specific role as the international safeguards inspectorate. Hence, statement 3 is not correct.</p>	30	<p>D</p> <p>The National Green Tribunal (NGT) has issued notices to the Ministry of Environment, Forest and Climate Change (MoEFCC), Oil India Limited (OIL) and two concerned state entities to explain how environmental clearances for the seven proposed drilling sites in the Dibru-Saikhowa National Park, Assam were given.</p> <p>Dibru-Saikhowa National Park is a national park in Assam, India, located in Dibrugarh and Tinsukia districts. It was designated a Biosphere Reserve in July 1997. The park is bounded by the Brahmaputra and Lohit Rivers in the north and Dibru river in the south. It mainly consists of moist mixed semi-evergreen forests, moist mixed deciduous forests, canebrakes and grasslands. It is the largest salix swamp forest in north-eastern India, with a tropical monsoon climate with a hot and wet summer and cool and usually dry winter. Annual rainfall ranges from 2,300 to 3,800 mm (91 to 150 in). It is a haven for many endangered species and rich in fish diversity.</p>
29	<p>D</p> <p>Government has accepted and implemented three important recommendations of Committee of Experts (CoE) under the Chairmanship of Lt General D B Shekatkar (Retd) relating to border Infrastructure.</p> <p>Accepted recommendations:</p> <ul style="list-style-type: none"> • Speeding up road construction, • Outsourcing road construction work beyond optimal capacity of the Border Roads Organisation (BRO). • Mandatory to adopt Engineering Procurement Contract (EPC) mode for execution of all works costing more than Rs 100 crore. • Delegating enhanced procurement powers from Rs 7.5 crore to Rs 100 crore to BRO, for domestic and foreign procurements. 	31	<p>C</p> <p>Hamada, a rocky desert, or desert region, which does not have surficial materials and which consists mainly of boulders and exposed bedrock. Two basic types occur: stony hamada, jaggedly developed across crystalline rocks; and pebbly hamada, cut across sedimentary material and mantled with bedrock fragments.</p>
		32	<p>D</p> <p>They are narrow where high mountains are very close and parallel to the coast. They</p>

	are wide where the wide plains are near the coast		Simlipal (1994) Achanakmar-Amarkantak (2005) Great Nicobar (1989) Agasthyamala (2005) Khangchendzonga (2018) (Sikkim)
33	A FAO has provided the relevant statistics, where largest Tropical moist deciduous is followed by tropical dry deciduous. So, deciduous forests cover the largest forest area in India, more than 60%! Tropical wet ever green forests follow and then semi-evergreen forests.	37	C Maintenance of a constant internal environment (homeostasis) by the organisms contributes to optimal performance, but only some organisms (regulators) are capable of homeostasis in the face of changing external environment. Some organisms are able to maintain homeostasis by physiological (sometimes behavioural also) means which ensures constant body temperature, constant osmotic concentration, etc. All birds and mammals, and a very few lower vertebrate and invertebrate species are indeed capable of such regulation. An overwhelming majority (99 per cent) of animals and nearly all plants cannot maintain a constant internal environment. Their body temperature changes with the ambient temperature. In aquatic animals, the osmotic concentration of the body fluids change with that of the ambient water osmotic concentration. These animals and plants are simply conformers.
34	D These forests are found in areas having rainfall between 100-200cm. Teak Sal Semul Sandalwood Shisam Khair etc. are found in these forests Jharkhand, Odisha, West Bengal have these kind of forests. Eastern side of western ghat also have this forest type.	38	C New Policy aims for universalization of education from pre-school to secondary level. <ul style="list-style-type: none"> • Universalise the pre-primary education (age range of 3-6 years) by 2025. • Universalization of Education from pre-school to secondary level with 100% Gross Enrolment Ratio (GER) in school education by 2030. The new system will have 12 years of schooling with three years of Anganwadi/ pre schooling. A new National Assessment Centre, PARAKH (Performance Assessment, Review, and Analysis of Knowledge for Holistic Development), will be set up as a standard-setting body.
35	B Safe Harbour refers to the conditions under which income-tax authorities will accept the transfer price declared by the assessee without any scrutiny. This feature benefits the tax payers, especially in the services sector. The Central Board of Direct Taxes (CBDT), the apex body under the Department of Revenue (Ministry of Finance) has recently notified changes in Safe Harbour Rules (SHR). As per the notification, the rates applicable from AY (Assessment Year) 2017-18 to 2019-20 will continue to apply for AY 2020-21.		
36	D The following are the Biosphere reserves from India that are listed in WNBR Nilgiri (Karnataka, Kerala & Tamil Nadu) (1986) Gulf of Mannar (1989) Sunderbans (1989) Nanda Devi (1988) Nokrek (1988) Pachmarhi (1999)#MP		

39	<p>C</p> <p>The United Nations (UN) on Friday released its World Happiness Report and India was at a dismal 144 rank of a total 156 nations surveyed. India has been scored at 3.573 points nestled between Lesotho and Malawi nations. Pakistan, on the other hand, has been ranked 66 with a score of 5.693. The rankings are based on GDP per capita, Social support, Healthy life expectancy, Freedom to make life choices, Generosity, Trust and Dystopia. In those surveys, people give scores from 1 to 10 on how much social support they feel they have if something goes wrong, their freedom to make their own life choices, their sense of how corrupt their society is and how generous they are.</p>	44	<p>A</p> <p>Statement 1: correct: Intercropping involves growing different crops simultaneously within the same plot of land. This increases the yield and maximizes utilization of abiotic inputs, like efficient use of sunlight, water etc.</p> <p>Statement 2: incorrect: Mulches are generally waste plant materials. In mulching, these plant materials are spread around the base of the crops. It protects the soil from erosion, reduces compaction from the impact of heavy rains, conserves moisture, reducing the need for frequent waterings, maintains a more even soil temperature and prevents weed growth.</p>
40	<p>B</p> <p>India and Maldives inked an agreement to set up Geydoshu Mas Plant (Neighborhood Fish Processing Plants) at two islands in the Addu city of Maldives namely Maradhoo and Hulhudhoo. The Contract signing ceremony was held virtually in Addu City, which was attended by Maldives' Foreign Secretary Abdul Ghafoor Mohamed, High Commissioner of India to the Maldives Sunjay Sudhir, along with other members of Maldives' Ministry of Foreign affairs.</p>	45	<p>D</p> <p>The common components of photochemical smog are:</p> <p>Ozone nitric oxide acrolein formaldehyde and peroxyacetyl nitrate (PAN)</p>
41	<p>D</p> <p>A Monadnock or Inselberg is an isolated rock hill, knob, ridge, or small mountain that rises abruptly from a gently sloping or virtually level surrounding plain.</p>	46	<p>B</p> <p>The critically endangered species of brown-tinted deer 'Sangai' is found only on a floating biomass on Manipur's Loktak lake. The Manipur Forest Department plans to translocate a section of the rare species of the endemic deer to Pumlun Pat, which is close to its existing habitat in Loktak. Keibul Lamjao National Park (KLNP), situated inside the lake, is the only remaining natural habitat of 'Sangai' which was once found across the Manipur valley.</p>
42	<p>C</p> <p>Tropical climate leads to early destruction of fishes caught. It makes refrigeration expensive compared to temperate climate. Too many bays and gulfs helps in fishing and India do not have too many such features. So statement 2 is incorrect.</p> <p>Monsoonal rainfall makes fishing a seasonal activity rather than a year round activity. Strong winds during monsoon makes it difficult to catch fishes.</p>	47	<p>B</p> <p>Bandipur NP is a Tiger Reserve in Mysore and Chamarajanagar districts of Karnataka.</p> <p>Eagle Nest wildlife sanctuary is a protected area in West Kameng district of Arunachal Pradesh.</p> <p>Nagarjunsagar Srisailem wildlife sanctuary is a tiger reserve spreads over Guntur, Prakasam & Kurnool districts of Andhra</p>
43	<p>A</p> <p>1 Only</p>		

	Pradesh and Nalgonda & Mahaboobnagar districts of Telangana. Rajiv Gandhi Orang NP is a tiger reserve in Darrang & Sonitpur districts of Assam.	51	C The Nullarbor Plain is in southern Australia, its located on the Great Australian Bight coast with the Great Victoria Desert to its north. It is the world's largest single exposure of limestone bedrock, and occupies an area of about 2 Lakh square kilometers
48	C It was an armed rebellion that took place in Odisha against the British East India Company. Paikas were the traditional landed militia of the Gajapati rulers of Odisha. Paikas owned rent-free land that had been given to them for their military service to Kingdom of Khurda. The uprising is said to be an expression against the disruption of traditional way of life of the region due to advent of British. It was directly against the colonial masters and due to the large-scale participation of all the section of the society it is sometimes referred as the "First war of Independence". Sidhu Murmu and Kanhu Murmu were the leader of the Santhal rebellion (1855-1856), the rebellion in present-day Jharkhand and Bengal (Purulia and Bankura) in eastern India against both the British colonial authority and the corrupt zamindari system.	52	B When a continental and Oceanic plates collide, the oceanic plate being heavier is subducted below the continental plate. Such a collision can result in formation of cordillera folded mountains like Rockies and Andes.
		53	B Gulf of Oman
		54	B Hirakud : Mahanadi Tehri : Bhagirathi Srisailam Dam : Krishna
		55	B A Coral Bleaching Alert System (CBAS) has been developed by the Indian National Centre for Ocean Information Services (INCOIS), Hyderabad of the Ministry of Earth Sciences (MOES). The primary parameter used in CBAS for generation of products, is night time Sea Surface Temperature (SST), derived from the National Oceanic and Atmospheric Administration (NOAA)'s Advanced Very High Resolution Radiometer (AVHRR). The alert system works on the principle that the rise in SST will impart thermal stress on the Coral reefs and if that thermal stress persists for longer periods the coral may start bleaching. The objective of developing the CBAS is to help in identification of thermal stress on coral systems for protection, preservation and the health of coral reefs in the country. These alerts can provide early indications of stress on coral ecosystem.
49	B Colistin is a valuable, last-resort antibiotic that saves human lives in critical care units. Indiscriminate use of colistin has led to the rise of antimicrobial resistance in the country. If the use of colistin as a growth factor in animals is cut down and it is limited to therapeutic usage only, the chances of developing resistance to it go down.	56	A The Govt. of India had launched "Project Tiger" on 1st April 1973 to promote conservation of the tiger. 'Project Tiger' is a Centrally Sponsored Scheme of the
50	D The Nuclear Power Corporation of India Limited (NPCIL) announced that, Unit-3 of Kakrapar Atomic Power Project (KAPP-3), India's First 700 MWe (megawatt electric) and indigenously developed Pressurized Heavy Water Reactor (PHWR) in Surat, Gujarat achieved its first criticality - initiation of controlled and sustained nuclear fission reaction on 22nd July 2020		

	<p>Ministry of Environment, Forests and Climate Change, providing funding support to tiger range States, for in-situ conservation of tigers in designated tiger reserves, and has put the endangered tiger on an assured path of recovery by saving it from extinction. Considering the urgency of the situation, Project Tiger has been converted into a statutory authority (NTCA) by providing enabling provisions in the Wild Life (Protection) Act, 1972 through an amendment, viz. Wild Life (Protection) Amendment Act, 2006. The Wild Life (Protection) Amendment Act, 2006 has come into force with effect from the 4th of September, 2006, and the NTCA has also been constituted on the same date. National Tiger Conservation Authority (NTCA) is chaired by the Minister of Environment and Forest. NTCA co-ordinates, implements and monitors Project Tiger.</p>	<p>of 1868. The flowers make an amazing bee-fodder. Even the timber is useful.</p> <p>The tree contributes to the micro-flora in desert soil. Its tap root goes deep into the earth, to depths of about 25 feet, seeking water. Wells are often dug close to the tree, for one can be sure of finding water near it. When vultures were more common in the desert, they would roost and nest in its branches.</p> <p>The decreasing number of Khejri has impacted the culture and economics in some way. Recently, the Central Arid Zone Research Institute (CAZRI) took out a report which stated that the number of Khejri trees per hectare in the 12 dry districts of Rajasthan had dropped to less than 35 per cent. This, the report stated, was happening because of a very high mortality rate owing to factors like decrease in groundwater level, fungal attacks, indiscriminate cutting, etc. The frequent and almost complete lopping off of branches for fodder affects seed production and stresses the trees. Frequent drought, the increased depth of the water table and use of mechanical ploughs - which injure the roots - have also affected chances of regeneration. One cause of the higher mortality of the khejri tree, scientists speculate, could also be the changing topography, with the Indira Gandhi Canal making water flow through once arid desert.</p>
<p>57</p>	<p>A</p> <p>Prosopis cineraria, locally called as Khejri or Jandi is an indigenous tree, which effectively stabilizes sand dunes and can withstand periodic burial. Culturally, the tree holds a very important place in lives Rajasthani people, especially the Bishnois.</p> <p>There is a significant economic and environmental importance too. The Khejri tree plays a vital role in maintaining the ecosystem of the dreary Thar region because of its ability to survive in such tough conditions and the different ways in which it can be used by the farmers. Apart from being a source of firewood and fodder, the Khejri also helps in sustaining the nutrient value of the soil and ensuring a good yield. The khejri tree is adapted to withstand both frost and drought, and survives both high temperature and low. It is known to improve soil fertility; it aids nitrate retention in soil.</p> <p>In addition, the fruit is used to make the very popular local dish 'Sangri' and can fetch up to Rs 300 per kilo for the farmers. "Khejri bark is used medicinally for a range of ailments and can be ground up and made into flour, and famously, saved thousands of lives during the Great Rajputana Famine</p>	
		<p>58</p> <p>A</p> <p>Recently, Central government decided to continue a British-era rule of exempting the Kodava community, from obtaining license for firearms. Kodavas (also known as Kogadu), a wellknown martial community of Coorg region in Karnataka. They worship weapons during the 'Kailpodh' festival and are the only community in the country who are exempted from obtaining arm licenses. They are known for its outstanding contributions to the country's defence sector and hence, Coorg is also called the Land of Generals. Another distinguishing characteristic of this community is the high status given to women like no child marriage, dowry is forbidden and widow remarriage is prevalent</p>

<p>59</p>	<p>B</p> <p>Introduced in 2015, the Pilgrimage Rejuvenation and Spiritual Augmentation Drive (PRASAD) is a government scheme that focuses on identifying and developing the pilgrim sites across the country to enrich the religious tourism experience.</p> <p>It was launched by the Union Ministry of Tourism. Its objectives are</p> <ul style="list-style-type: none"> ● Harness pilgrimage tourism for its direct and multiplier effect upon employment generation and economic development. ● Enhance tourist attractiveness in a sustainable manner by developing world-class infrastructure in religious destinations. ● It also seeks to promote local art, culture, handicraft, cuisine, etc. 	<p>the reflectivity of the earth's surface. Ice, especially with snow on top of it, has a high albedo: most sunlight hitting the surface bounces back towards space. Water is much more absorbent and less reflective. Fresh snow or ice = 60-90% or 80-95%, Old, melting snow = 40-70%, Sea ice = 25-60%, Clouds =40-90%, Forest = 5-20% or 10-20%, Tropical forests = 13% or Woodland = 14%, Crops or grasslands = 10-25%, Grasslands = 18-25% or 20%, Grass = 25-30%, Soil = 5-30%, Water = 5-10% or 8-10% or 10-60%, Clouds = 40-90%, Desert sand = 30-50% or Sandy desert = 37%, Stony desert = 24%, Tundra = 15-35%, Asphalt = 5-10% or 4-12%, Concrete (dry) = 17-27% or 55%, Brick or stone = 20-40%, Dark roof = 8-18% or Light roof = 35-50%, Moon = 6-14% (some bright areas 17-30%).</p>
<p>60</p>	<p>D</p> <p>Pakistan and Gezhouba Group Company Limited of China signed an Engineer Procurement and Contract (EPC) agreement for the 700 MW Azad Pattan Hydel Power Project on Jhelum River in the Sudhnoti District of Pakistan occupied Kashmir (PoK). Imran Khan, Prime Minister of Pakistan witnessed the signing in a ceremony in Islamabad. This 1.5 billion USD project is a 2nd power project under the China Pakistan Economic Corridor (CPEC).</p>	<p>65</p> <p>C</p> <p>Edge effects refer to the changes in population or community structures that occur at the boundary of two habitats. Areas with small habitat fragments exhibit especially pronounced edge effects that may extend throughout the range. As the edge effects increase, the boundary habitat allows for greater biodiversity.</p>
<p>61</p>	<p>A</p> <p>When rock column between two rift lines deepens downward then rift valley is formed. e.g., Narmada Valley, Tapti valley.</p>	<p>66</p> <p>C</p> <p>BS emission standards are emission standards instituted by the Union Government to regulate output of air pollutants from internal combustion engines and spark ignition engines equipment, including motor vehicles. The standards and the timeline for implementation are set by the Central Pollution Control Board under the Union Ministry of Environment & Forests and climate change (MoEFCC). The standards, based on European regulations were first introduced in 2000. Since then, various stages Bharat Stage compatible fuel and ungraded and modified vehicles were introduced throughout the country. Each stage specifies a certain limit on the pollutants released, Higher the Bharat Stage goes lesser it emits pollutants. BS-I, BS-II and BS-III stages were launched in 2000, 2005 and 2010 respectively The harmful emissions that are identified for</p>
<p>62</p>	<p>B</p> <p>The Bering Strait is a strait of the Pacific, which borders with the Arctic to north. It is located between Russia and the United States.</p>	
<p>63</p>	<p>C</p> <p>Hope Island is a small tadpole shaped Island situated off the coast of Kakinada, Andhra Pradesh, India, in Bay of Bengal.</p>	
<p>64</p>	<p>B</p> <p>Albedo is the fraction of solar energy (shortwave radiation) reflected from the Earth back into space. It is a measure of</p>	

	<p>regulations in different Bharat Stages (BS) are carbon monoxide (CO), unburnt hydrocarbons (HC), Nitrogen Oxides (NOx) and Particulate matter (PM).</p> <p>BS-IV fuels contain far less sulphur than BS-III fuel. Sulphur in fuel makes it dirtier and lowers the efficiency of catalytic converters, which control emissions.</p>		
67	<p>A</p> <p>Olive Ridley Turtle OR Olive Back Logger Head Turtle (<i>Lepidochelys olivacea</i>)</p> <p>The Olive ridley turtles are the smallest and most abundant of all sea turtles found in the world, inhabiting warm waters of the Pacific, Atlantic and Indian oceans. These turtles, along with their cousin the Kemps ridley turtle, are best known for their unique mass nesting called Arribada, where thousands of females come together on the same beach to lay eggs. The Olive ridley gets its name from its olive colored carapace, which is heart-shaped and rounded. They are carnivores, and feed mainly on jellyfish, shrimp, snails, crabs, molluscs and a variety of fish and their eggs. These turtles spend their entire lives in the ocean, and migrate thousands of kilometers between feeding and mating grounds in the course of a year. The coast of Orissa in India is the largest mass nesting site for the Olive-ridley, followed by the coasts of Mexico and Costa Rica. WWF-India, along with the fishermen community, has been involved in protecting the Olive ridley rookery at the mass nesting site at Rushikulaya, in Orissa, by fencing off the nesting area and patrolling it till hatching and ensuring a safe passage for the hatchlings to the sea. Olive-ridleys face serious threats across their migratory route, habitat and nesting beaches, due to human activities such as turtle unfriendly fishing practices, development and exploitation of nesting beaches for ports, and tourist centres. Though international trade in these turtles and their products is banned under CITES Appendix I, they are still extensively poached for their meat, shell and leather, and their eggs, though</p>	<p>illegal to harvest, have a significantly large market around the coastal regions. However, the most severe threat they face is the accidental killing of adult turtles through entanglement in trawl nets and gill nets due to uncontrolled fishing during their mating season around nesting beaches. To reduce accidental killing in India, the Orissa government has made it mandatory for trawls to use Turtle Excluder Devices (TEDs), a net specially designed with an exit cover which allows the turtles to escape while retaining the catch. Mechanised fishing boats are dealing the turtles a mortal blow as they come to breed.</p> <p>The turtles, which are protected under Schedule I of Wildlife (Protection) Act, 1972 commence their journey from the Indian Ocean during their mating season in October and November. When they reach the Bay of Bengal, the females lay eggs on the beaches. Even as the destination for a majority is Gahirmatha in Odisha, the sandy stretches of Hope Island of the Coringa Wildlife Sanctuary (Andhra Pradesh) have turned into a breeding area for a few hundred turtles every year.</p>	
		68	B
		69	D
		<p>Union Ministry of Mines organized an interactive workshop called 'Waste to Wealth' in New Delhi for discussing productive utilisation of bauxite residue.</p> <p>Red Mud is a solid waste generated during the aluminium production process.</p> <p>Red mud, or bauxite residue, is a side-product of the Bayer process, the principal means of refining bauxite to produce alumina. This is an environmental concern due to the presence of impurities such as caustic soda and other minerals.</p> <p>The Red Corridor is the region in the eastern, central and the southern parts of India that experience considerable Naxalite-Maoist insurgency. These are also areas that suffer from the greatest illiteracy, poverty and overpopulation in modern India, and span parts of Andhra</p>	

	Pradesh, Bihar, Chhattisgarh, Jharkhand, Madhya Pradesh, Maharashtra, Odisha, Telangana, and West Bengal and eastern Uttar Pradesh states. As per Ministry of Home Affairs, altogether 1,048 incidents of Left-wing extremism (LWE) violence took place in these 10 states		proposes to explore the deep ocean similar to the space exploration started by ISRO about 35 years ago. The 'Deep Ocean Mission' plan will enable India to develop capabilities to exploit resources in the Central Indian Ocean Basin (CIOB).
70	D Recently, a group Bhaona artist performed in Abu Dhabi in English language contrary to the traditional language of Brajawali. Brajawali is special language used in Bhaona which was created by Sankardeva. He was also the father of Assamese classical dance - Sattriya Dance. It was created because the Sanskrit, which was the original language used in the Hindu religious texts, was difficult for common people.	74	D The fundamental principle of ecosystem is that at any place where organisms live, there is a continuous interaction between plants, animals and their environment to produce and exchange materials. OR In other words, an ecosystem can be defined as "The biotic (living) community and its physical (non-living) environment in which matter cycles and energy flows is called ecosystem." The organisms of any community besides interacting among themselves always have functional relationship with the external world or the environment. This "structural and functional system of communities of living organisms and their environment is called ecological system or in short the ecosystem"
71	A Chaukhandi Stupa is an ancient Buddhist site in Sarnath (Uttar Pradesh), with a lofty brick structure crowned with an octagonal tower. Originally stupa is said to be built by Emperor Ashoka. The octagonal tower on top is a Mughal monument built in 1588 to commemorate Humanyu's visit to this place.	75	C GRIHA is a rating tool that helps people assesses the performance of their building against certain nationally acceptable benchmarks. It evaluates the environmental performance of a building holistically over its entire life cycle, thereby providing a definitive standard for what constitutes a 'green building'. The rating system, based on accepted energy and environmental principles, will seek to strike a balance between the established practices and emerging concepts, both national and international. This rating was jointly developed by TERI and MoN&RE.
72	C The United Nations Educational, Scientific and Cultural Organization's (UNESCO) Global Education Monitoring (GEM) Report Team launched its 2020 Report on "Inclusion and Education: All Means All", assessing the progress towards the Sustainable Developments Goal 4 on education and other SDG agendas related to education.	76	A The Government of India set up Bureau of Energy Efficiency (BEE) under the provisions of the Energy Conservation Act, 2001. The mission of the Bureau of Energy Efficiency is to assist in developing policies and strategies with a thrust on self-regulation and market principles, within the overall framework of the Energy
73	A India has been allotted 75,000 square kilometres in the Central Indian Ocean Basin (CIOB) by UN International Sea Bed Authority for exploration of poly-metallic nodules. CIOB reserves contain deposits of metals like iron, manganese, nickel and cobalt. Ministry Of Earth Sciences Plans Rs 8000 Crore 'Deep Ocean Mission' To Boost India's Sea Exploration Capabilities. The mission		

	Conservation Act, 2001 with the primary objective of reducing energy intensity of the Indian economy. It promote use of energy efficient processes, equipment, devices and systems and undertakes measures against the wasteful use of electricity. It also gives financial assistance to institutions for promoting efficient use of energy and its conservation. It works under Ministry of Power. Hence, statement 3 is incorrect.		Like many other seasonal Indian rivers, the Mahanadi too is a combination of many mountain streams and thus its precise source is impossible to pinpoint.
77	A Africa is the second largest continent after Asia. The Equator runs almost through the middle of the continent. A large part of Africa lies in the Northern Hemisphere. It is the only continent through which the Tropic of Cancer, the Equator and the Tropic of Capricorn pass. Hence, statement 1 is correct. North America is the third largest continent of the world. It is linked to South America by a very narrow strip of land called the Isthmus of Panama. The continent lies completely in the Northern and Western Hemisphere. Hence, statement 2 is incorrect. Australia (smallest continent) and Antarctica lies entirely in the Southern Hemisphere. Hence, statement 3 is incorrect.	80	A A landlocked country has no access to an ocean at its borders. 44 of the world's 198 countries are landlocked. A double landlocked country on the other hand is a country that is surrounded by landlocked countries. There are only two such countries in the world. Liechtenstein in Europe is surrounded by two landlocked countries; Switzerland and Austria while Uzbekistan in Asia is surrounded by five. They are Afghanistan, Kazakhstan, Kyrgyzstan, Tajikistan and Turkmenistan.
78	B An escarpment or the highly precipitous slope is associated with the typical landforms caused by the phenomenon of faulting. The fault scarps of Western Ghats overlooking the Arabian Sea are formed due to faulting.	81	C Savanna is a variety of grassland with scattered shrubs and individual isolated trees (deciduous). The trees are having a flat crown, umbrella shaped. Savanna can be found between tropical deciduous rainforest and desert biome. Plants of the savannah are highly specialised to the long period of drought. They have long tap roots, thick barks to resist annual fire, trunks that can store water, and the leaves that can drop off during the dry season to conserve water. Many plants have thorns and sharp leaves to protect against predation. Savanna is found in the tropics, near equator. Savannas cover Africa (generally central and east Africa) and large areas of Australia, South America (Venezuela, Brazil, Columbia), and India.
79	A Son River of central India is the second largest of the Ganges' southern tributaries after Yamuna River. It originates near Amarkantak in Madhya Pradesh, just east of the headwater of the Narmada River, and flows north-northwest through Madhya Pradesh state before turning sharply eastward where it encounters the southwest-northeast-Kaimur Range. The source of the Sutlej is west of Lake Rakshastal in Tibet, as springs in an ephemeral stream channel descending from this lake.	82	B The Roaring Forties in the Northern Hemisphere don't pack the same punch that they do in the Southern Hemisphere. This is because the large land masses of North America, Europe, and Asia obstruct the airstream, whereas, in the southern hemisphere, there is less land to break the wind in South America, Australia, and New Zealand. The Roaring Forties take shape as warm air near the equator rises and moves toward the poles. Warm air moving poleward (on both sides of the equator) is

	the result of nature trying to reduce the temperature difference between the equator and at the poles created by uneven heating from the sun.		7. National Mission for Sustainable Agriculture 8. National Mission for Strategic Knowledge for Climate Change
83	D National Waterway-1 from Allahabad to Haldia was in news due to threat for Gangetic river dolphins from its construction. National Waterway-2 is from Dibru and Sadiya and National Waterway-3 is from Kollam to Kottappuram in Kerala.	87	B These big birds with an average wing span of over 5 ft once ruled the skies in thousands, gliding on the thermals effortlessly. Vultures are natural scavengers as they feed on dead and sick animals; this, in turn, prevents the spread of diseases. However, their numbers have been dwindling since the early '90s - they were almost wiped out by the veterinary drug Diclofenac used to treat cattle.
84	B Greenland is the world's largest island. (Australia is not included in this list because it is defined as a continent rather than an island.) It is about 81% ice-capped and an autonomous dependent territory of Denmark with limited self-government and its own parliament. Greenland is located in North America, between the Arctic Ocean and the North Atlantic Ocean.	88	D Global Peace Index is released by the Australian think tank Institute for Economics & Peace. The GPI was founded by Steve Killelea, an Australian technology entrepreneur and philanthropist. The report covers 99.7 per cent of the world's population and uses 23 qualitative and quantitative indicators from highly respected sources to compile the index. This year's report includes new research on the possible effects of climate change on peace.
85	C Union Defence Minister Rajnath Singh recently inaugurated the strategically important Ghatiabagar-Lipulekh motor road. The road connects the last Indian post on the Indo-China border in Uttarakhand's Vyas valley. The construction of the road commenced in 2008 and was scheduled to be completed in 2013, but it was delayed due to the tough terrain. The Kailash-Mansarovar Yatra from Lipulekh pass is more convenient for pilgrims, after the road has been commissioned.	89	A The Uighurs are a mostly Muslim Turkic ethnicity who regard themselves as culturally and ethnically close to Central Asian nations. The majority live in Xinjiang, where they number about 11 million people. The region's economy has for centuries revolved around agriculture and trade.
86	D Under NAPCC. These are the 8 missions: 1. National Solar Mission. 2. National Mission for Enhanced Energy Efficiency . 3. National Mission on Sustainable Habitat 4. National Mission on Water . 5. National Mission for Sustaining the Himalayan Ecosystem. 6. National Mission for a Green India .	90	C Megalithic culture refers to the cultural remains found in the megaliths and from the habitation sites associated with them. Various types of megalithic monuments found are menhirs, dolmenoid cist/dolmen, topikal etc. Menhirs are monolithic slabs that are erected above the ground and may be small or gigantic in height.

91	<p>A</p> <p>Balochistan is one of the four provinces of Pakistan, located in the southwestern region of the country. It shares borders with Iran to the west, and Afghanistan to the north. Gwadar port is located in Balochistan.</p>	<p>transformation and nitrates are formed. Some of these are absorbed by the plants. The rest are either leached into the underground water or are denitrified to gaseous nitrogen and nitrous oxide under anaerobic conditions (absence of oxygen). Neem has properties that check nitrogen loss at each stage. It slows down the process of nitrate formation and hence excess nitrate is not available for denitrification. When farmers use this urea, the slow release of nitrogen helps the fertility of the soil. Therefore, there will be more yield to the extent of 15-20%. Also, the higher usage of neem-coated urea would check diversion of urea for industrial use. Neem coated urea also works as insecticide.</p>
92	<p>B</p> <p>The Rafale is a twine-engine, multi-role fighter aircraft. It is capable of carrying out all combat missions: air defence, interception, ground support, in-depth strikes, reconnaissance, anti-ship strikes and nuclear deterrence, hence statement 1 is wrong.</p>	
93	<p>A</p> <p>The Ministry of Road Transport & Highways has issued a draft notification amending Central Motor Vehicle Rules, allowing motor vehicles and their parts, components, assemblies, sub-assemblies to be affixed with permanent and nearly invisible microdots. Microdot technology involves spraying the body and parts of the vehicle or any other machine with microscopic dots, which give a unique identification.</p> <p>These microdots can be read physically with a microscope and identified with an ultraviolet light source.</p> <p>The microdots and adhesive will become permanent fixtures/affixation which cannot be removed without damaging the asset, that is the vehicle itself.</p> <p>Use of this technology will help check the theft of vehicles and also the use of fake spare parts.</p>	95
94	<p>A</p> <p>Urea is an important supplier of nitrogen, which is necessary for the development of plants. But only 30-40 per cent of nitrogen present in the urea is utilised by crops. The rest gets degraded. When ordinary urea is applied, it gets converted to ammonium carbamate. Some of this gets converted to ammonia gas in what is called ammonia volatilisation. About 8-10 per cent nitrogen is lost during volatilization. The rest of the ammonium carbamate undergoes chemical</p>	96
		<p>A</p> <p>Working to setting up commercial cooperation in renewable energy with developed and developing countries. The ministry of new and renewable energy has firmed up international cooperation agreements with Germany and United States to establish 'Green Energy Corridors' in the country. And also working in renewable energy sector with a view to establish commercial cooperation for supplies of indigenously manufactured renewable energy products, system and devices</p>
		<p>B</p> <p>The Kaziranga National Park is one of the oldest wildlife conservancy reserves of India, first notified in 1905 and constituted as Reserved Forest in 1908 with an area of 228.825 Sq. Km specially established for conservation and protection of the Greater One Horned Rhinoceros (<i>Rhinoceros Unicornis</i>) whose number was estimated at twenty pairs then. Kaziranga was declared a Game Sanctuary in 1916 and opened to visitors in 1938. It was declared a Wildlife Sanctuary in 1950, and notified as Kaziranga National Park in 1974 under the Wildlife (Protection) Act, 1972, with an area of 429.93 Sq. Km. which has now</p>

	extended to 899 Sq. Km. subsequently. The Kaziranga National park was declared a Tiger Reserve in the year 2007 and since then it is getting sufficient financial support under "CSS Project Tiger" which is under the National Tiger Conservation Authority (NTCA). Kaziranga was also declared as a World heritage site in 1985.		therefore, the high pressure is maintained. Cold currents on the western margins of the continents are also an important factor as they do not encourage any precipitation. Examples of cold currents: Canaries current in the Atlantic East coast, West Australian current in the West continental margins of Australia etc.
97	C There are a few hundred small islands in the SCS, a part of the Pacific Ocean. Some of the main ones are Spratly Islands, Paracel Islands and Scarborough Shoal. China claims most of these islands as its own. Vietnam, Malaysia, Brunei, the Philippines and Taiwan have rival claims. China has said it will not permit other nations to infringe on what it considers its sovereign rights in the strategically vital area. The U.S. has no claim in the South China Sea, but has been highly critical of China's assertiveness and says it will protect freedom of navigation. Ties between China and Japan have been strained by a territorial row over a group of islands, known as the Senkaku islands in Japan and the Diaoyu islands in China. It is a group of uninhabited islands and rocks in the East China Sea. The islands are controlled by Japan.	99	C Image result for different layers of atmosphere From highest to lowest, the five main layers are: Exosphere: 700 to 10,000 km Thermosphere: 80 to 700 km Mesosphere: 50 to 80 km Stratosphere: 12 to 50 km Troposphere: 0 to 12 km
98	C Off-shore winds and not on-shore winds the blow over this region. These winds carry no moisture thus cause no precipitation. These deserts though try to become areas of low pressure due to high heat but cool faster than the rate at which it gets heated	100	D Some important minor plates are listed below: (i) Cocos plate : Between Central America and Pacific plate (ii) Nazca plate : Between South America and Pacific plate (iii) Arabian plate : Mostly the Saudi Arabian landmass (iv) Philippine plate : Between the Asiatic and Pacific plate (v) Caroline plate : Between the Philippine and Indian plate (North of New Guinea) (vi) Fuji plate : North-east of Australia
<i>For further clarifications and feedback feel free to write to us at "testseriesrcr@gmail.com"</i>			