

Prelimsure Test-14 Detailed Answerkey

1. B

- India has 11 UNESCO recognised Biosphere Reserves. They are Nilgiri, Gulf of Mannar, Sunderbans, Nanda Devi, Nokrek, Pachmarhi, Similipal, Achanakmar-Amarkantak, Great Nicobar, Agasthyamala and Khangchendzonga

2. A

- The Basel Convention is for the Control of Transboundary Movements of Hazardous Wastes and Their Disposal. It was designed to reduce the movements of hazardous waste between nations, and specifically to prevent transfer of hazardous waste from developed to less developed countries (LDCs). It does not, however, address the movement of radioactive waste.
- The Minamata Convention on Mercury is an international treaty designed to protect human health and the environment from anthropogenic emissions and releases of mercury and mercury compounds.
- Stockholm Convention on Persistent Organic Pollutants is an international environmental treaty that aims to eliminate or restrict the production and use of persistent organic pollutants (POPs).

3. B

- Logical. Think of Colour Blindness. We cannot see some colours as it is. Now relate.
- Plant blindness is a form of cognitive bias, which in its broadest meaning, is a human tendency to ignore plant species.
- This includes such phenomena as not noticing plants in the surrounding environment, not recognizing the importance of plant life to the whole biosphere and to human affairs, a philosophical view of plants as an inferior form of life to animals and/or the inability to appreciate the unique features or aesthetics of plants.

4. A

- DMFs were instituted under the Mines and Minerals (Development and Regulation) (MMDR) Amendment Act 2015 as non-profit trusts to work for the interest and benefit of persons and areas affected by mining-related operations.
- Its objectives and aims make it clear that DMFs are meant to alleviate poverty and improve human development indicators. Hence they should be more aligned to state and district planning departments along with other concerned departments that overlook the high priority issues.
- However, in reality, in all the states except Odisha the DMF is under the mines department.

5. A

- The Galilee Basin is a large inland geological basin in the western Queensland region of Australia. Australia has given the final approval for construction to begin on a controversial coal mine to be built by Indian company Adani. The mine, in Queensland's Galilee Basin, has been the subject of years of hold-ups over environmental approvals.
- Sea of Galilee is in Israel. The Sea of Galilee Lake Tiberias, Kinneret or Kinnereth, is a freshwater lake in Israel. The Sea of Galilee is situated in northeast Israel, between the Golan Heights and the Galilee region, in the Jordan Rift Valley.

6. C

- Dirty dozens are the 12 persistent organic pollutants. These were the 12 initial compounds that were listed under the Stockholm convention. These are aldrin, chlordane, DDT, dieldrin, dioxins, endrin, furans, heptachlor, hexachlorobenzene, mirex, PCBs, and toxaphene.

7. C

- India is planning to launch its own space station by 2030, joining the league of US, Russia, and China to an elite space club. A space station is a habitable spacecraft capable of supporting human crewmembers and designed to remain in space. As of now, the International Space Station (ISS) is the only fully functioning space station and largest human-made body in low Earth orbit.
- ISRO (Indian Space Research Organisation) is working on space docking experiment (Spadex), a technology that is crucial for making the space station functional. Space docking is a technology that allows transferring humans from one spacecraft to another.

8. B

- A tiger reserve has two zones – core and buffer. In the buffer zone, human activity is allowed. Guidelines of the NTCA are strict in such a way that it does not allow more than 20 per cent area of a tiger reserve to be used for tourism.

9. D

- Biosphere reserves are created by merely a notification and they do not require legislation. National parks, wildlife sanctuaries, tiger reserves, community reserves, conservation reserves are backed up by the Wildlife Protection Act, 1972.

10. D

- Shola forests are found all along the upper reaches of the Western Ghats particularly in the Anamalai, Palani, Nilgiri hills. Manas national park is in the state of Assam, can be eliminated easily.
- Bandhavgarh National Park is in the central Indian state of Madhya Pradesh. Western Ghats do not pass through Madhya Pradesh.
- Kawal Tiger Reserve is located in Telangana state of India which is mainly a part of the Eastern Ghats and thus shola forests will not be present ideally.

11. B

- MoEFCC had issued national guidelines on FFPM in 2000 but they are no longer being implemented.
- Forest officers point out that fires are often started by private citizens doing early-season burning in forest near settlements and agricultural lands.
- Collection of non-timber forest products (NTFPs) was reported as a main cause of fire. People may burn to aid in the collection of flowers from the mahua tree for food or to brew alcohol.

12. D

- The DNA Technology (Use And Application) Regulation Bill, 2019 was introduced in the Lok Sabha. The bill which is also known as the DNA profiling bill, tries to check use of DNA technology to establish the identity of a person. According to the government, the DNA technology bill aims to establish the identity of missing persons, victims, offenders, under trials and unknown deceased persons.
- DNA Index System - It is a first-of-its-kind initiative which allows generation of DNA profiles from live samples like saliva and blood stains within 90-120 minutes. Andhra Pradesh became the first state in the country to launch DNA Index System (DIS) for DNA profiling of criminals.

13. B

- More than 70 per cent of all the species recorded are animals, while plants (including algae, fungi, bryophytes, gymnosperms and angiosperms) comprise no more than 22 per cent of the total.
- Among animals, insects are the most species-rich taxonomic group, making up more than 70 per cent of the total.
- The number of fungi species in the world is more than the combined total of the species of fishes, amphibians, reptiles and mammals.

14. B

- The US H-1B visa is a non-immigrant visa that allows US companies to employ graduate level workers in specialty occupations. Speciality occupations requires theoretical or technical expertise in specialized fields such as in IT, finance, accounting, architecture, engineering, mathematics, science, medicine, etc.
- Any professional level job that usually requires you to have a bachelor's degree or higher can come under the H-1B visa for specialty occupations.
- H-1B visa holders can bring their spouse and children under 21 years of age to the US under the H-4 Visa category as dependents. An H4 Visa holder is allowed to remain in the US as long as the H-1B visa holder remains in legal status.
- While, an H-4 visa holder is not eligible to work in the US, they may attend school, obtain a driver's license and open a bank account while in the US.
- H1B visa holders are also allowed to apply for permanent residency in the US as well as buy or sell property in the country.

15. A

- The South Asia Wildlife Enforcement Network has been formally launched at an inter-governmental meeting hosted by the Royal Government of Bhutan opening a new chapter in regional cooperation in South Asia for strengthening wildlife law enforcement. It was agreed to base the SAWEN Secretariat in Nepal.

16. D

- Ecosystem services are the many and varied benefits that humans freely gain from the natural environment and from properly-functioning ecosystems.
- Collectively, these benefits are becoming known as 'ecosystem services', and are often integral to the provisioning of clean drinking water, the decomposition of wastes, and the natural pollination of crops and other plants.

17. B

- Among the options given, Indravati can be used to reach the answer. As learned in geography, Indravati river rises in the state of Odisha and flows through Chattisgarh before joining Godavari as a tributary.
- Thus, options Jharkhand and Madhya Pradesh are eliminated. The national parks Guru Ghasidas, Indravati and Kanger Valley are all located in the state of Chattisgarh.

18. C

- Alpha diversity is just the diversity of each site (local species pool). Beta diversity represents the differences in species composition among sites. Gamma diversity is the diversity of the entire landscape (regional species pool). Among these, alpha and gamma diversity are fairly straightforward

19. B

- The Kigali Amendment is a legally binding agreement and considered very vital for reaching the Paris Agreement target of keeping global temperature rise to below 2-degree Celsius compared to pre-industrial times.
- For the first time in the Montreal mechanism, developing countries got divided into two different groups with different phasedown schedules.
- The amendment, which will come into force in 2019, will ensure that the developed countries eliminate at least 85% of their HFCs from the baseline period of 2011-13 by the year 2036.
- The Chinese group of developing countries has the target of eliminating 80% of their 2020-22 baseline HFC use by the year 2045, while the Indian group will have to phase out 85% of their baseline HFCs by the year 2047.

20. D

- Dachigam National Park is located 22 kilometers from Srinagar, Jammu and Kashmir.
- It covers an area of 141 square kilometers from Srinagar, Jammu and Kashmir. The main animal species that Dachigam is most famous for is the Hangul, or the Kashmir Stag.

21. C

- Finance Minister Nirmala Sitharaman in the Union Budget announced a bunch of policy actions to make owning and manufacturing electric vehicles (EVs) cheaper in the country.
- Among other things, the government has moved to reduce the goods and services tax (GST) on EV purchases to 5% from the existing rate of 12%.
- Customers will also get an additional income tax relaxation of up to Rs1.5 lakh against interest payments on any loan that they take to buy an EV. This raises the total rebate that can be availed on the interest on EV loans to Rs2.5 lakh, including an earlier Rs1 lakh allowance.
- The Union Budget also included the proposal for custom duty exemption on import of specific components that are needed by EV manufacturers. The new proposals will be in addition to the ₹ 10,000 crore allocated for EVs under the FAME II scheme and includes solar storage batteries and charging infrastructure as well. FAME Scheme is under Ministry of Heavy Industries & Public Enterprises

22. A

- Cycads are seed plants which usually have a woody trunk with a crown of large, hard evergreen leaves. Beetles are insects who feed on plant species such as cycads for food.
- Beetles are small and relatively defenseless creatures and thus a variety of mammals hunt them. Rodents and small carnivores frequently consume beetles.

23. D

- Sunlight helps in photosynthesis, soil provides minerals, water etc; relief helps in development of soil. Human activities can alter or fully destroy a vegetation community.

24. D

- An association of different organisms forming a closely integrated community that include plants and animals.

25. C

- Ireland is part of EU. From Brexit Related news it can be easily understood. Also Russia isn't part of EU.
- Now eliminate the options to reach the answer.

26. A

- A climax community is an ecological community in which populations of plants or animals remain stable and exist in balance with each other and their environment.
- A climax community is the final stage of succession, remaining relatively unchanged until destroyed by an event such as fire or human interference. It's marked by high stability and high diversity.

27. A

- Biopiracy is the practice of commercially exploiting naturally occurring genetic material or biochemical. Most of the indigenous people possess a traditional knowledge that mainly comprises of genetic diversity and biological feature of the natural environment from generation to generation. Some of the traditional knowledge that is relevant to global survival includes the following components. (1) Medicinal Plants (2) Farming or Agriculture (3) Varieties of Food crops.
- Example: Biopiracy of African super-sweet berries: Pentadiplandra brazzein is a plant found in the west of South Africa. It is a vital source of protein known as Brazzein. Here, people use it as a low-calorie sweetener. It is known to be two thousand times sweeter than sugar. Recent developments include isolation of the gene encoding brazzein that has been sequenced and patented in the USA.

28. B

- The Great Himalayan National Park Conservation Area is located in the western part of the Himalayan Mountains in the northern Indian State of Himachal Pradesh. The property lies within the ecologically distinct Western Himalayas at the junction between two of the world's major biogeographic realms, the Palearctic and Indomalayan Realms.

- Kishtwar and Kanchendzonga National Park can be easily eliminated because they both are located far west and far east respectively.

29. D



●

30. B

- Nagaland's Home Commissioner has issued a notification for setting up of the Register of Indigenous Inhabitants of Nagaland (RIIN). The aim is to prepare a master list of all indigenous peoples and check the issuance of fake indigenous inhabitant certificates.
- The RIIN will be prepared after an extensive survey with the help of a village-wise and ward-wise list of indigenous inhabitants based on official records. Also, It will be prepared under the supervision of each district administration.
- No fresh indigenous inhabitant certificate will be issued after the RIIN is completed except for children born to the State's indigenous inhabitants who will be issued indigenous certificates along with birth certificates. The RIIN database will be updated accordingly.
- The RIIN will also be integrated with the online system for Inner-Line Permit, a temporary document non-inhabitants are required to possess for entry into and travel in Nagaland.
- RIIN has been called as a variant of the National Register of Citizens (NRC) that the state of Assam is updating to identify and weed out illegal immigrants in the state

31. D

- Kolleru Lake is one of the largest freshwater lakes in India located in state of Andhra Pradesh and forms the largest shallow freshwater lake in Asia, 15 kilometers away from the city of Eluru. Kolleru is located between Krishna and Godavari deltas.

32. B

- Women Health and Hygiene empowerment' the biggest social movement of 21st century, Sanfe, a leading feminine Hygiene brand has launched #RedDot Campaign to normalize period pain talk for women. The campaign intends to generate widespread awareness around the discomfort caused by a period pain in the life of women and how it restricts them from reaching new heights in various walks of life.

- To spark conversations around period pain and allow women to embrace periods in the most inspiring manner, #Red Dot campaign invites women to post a photo on social media with a RED DOT on their hand and tag 2 friends or family members to do the same. Sanfe has partnered with renowned NGO Pinkishe and The Better India to make Period Pain talks a mass movement.
- On the other hand, it is the Red line campaign which aims to check the irrational use of antibiotics.

33. A

- Manas National Park has been designated a National Park, UNESCO Natural World Heritage site, a Project Tiger Reserve, an Elephant Reserve and a Biosphere Reserve in Assam, India. It is Located in the Himalayan foothills, with a part extending to Bhutan.

34. C

- Abu Dhabi hosted International Security Alliance (ISAs) first joint security exercise named ISALEX19.
- The mission of the Alliance is to promote internal security cooperation among its member ministers, in particular with regards to the following strategic priorities:
 - preventing and combating transnational organized crime;
 - preventing and combating forms of radicalisation and violent extremism;
 - the management of borders
- India is not a member.



35. C

- The Global Carbon Project was established in 2001 by a shared partnership between the International Geosphere-Biosphere Programme (IGBP), the International Human Dimensions Programme on Global Environmental Change (IHDP), the World Climate Research Programme.
- It was formed to support policy debate and implement action to slow down and ultimately stop the increase of greenhouse gases in the atmosphere.
- The project aims to strengthen the broad carbon research programs of nations and regions through better coordination, articulation of goals, and development of conceptual frameworks.

36. D

- India has more than 20% of geographical area under managed forests and thus under effective conservation as well. It exceeds the targets set under the Aichi Target of having 17% forest cover.

- ‘Integrated Development of Wildlife Habitats’ is an on-going Centrally Sponsored Scheme where the financial assistance is provided to State/UT Governments for protection and conservation of wildlife and its habitats in Protected Areas as well as outside PAs.
- The orange-finned mahseer is an iconic sport fish that is reported to be endemic to the Cauvery basin. It is also known as the hump-back mahseer,

37. B

- Pitti Island is the uninhabited coral islet of the Lakshadweep islands and it is host to a number of marine birds. Amini Island and Pitti Island are a part of the sunken atoll, which is also well known for the variety of birds.

38. B

- The Cartagena Protocol on Biosafety is a legally binding global protocol that seeks to contribute to ensuring the safe transfer, handling and use of living modified organisms (LMOs) created through modern biotechnology.
- The Protocol covers the “transboundary movement, transit, handling and use of all living modified organisms that may have adverse effects on the conservation and sustainable use of biological diversity, taking into account risks to human health”.
- It does not cover:
 1. Products derived from LMOs (e.g. paper from GM trees)
 2. LMOs which are pharmaceuticals for humans that are addressed by other relevant international agreements or organizations

39. C

- The Centre has approved setting up of e-Foreigner Tribunal (e-FT) in Assam.
- Aim: To maintain a statewide bio-metric and biographic data and to capture the illegal migrants’ data to computerize data flow for all the stakeholders.
- The proposed integrated e-FT IT system will be implemented across Assam for effective monitoring and resolution of cases registered with Foreigner Tribunal.

40. D

- The Cartagena Protocol on Biosafety entered into force on 11 September 2003. It is a legally binding international agreement under the United Nations’ Convention on Biological Diversity (CBD). A protocol is a binding international instrument, separate from, but related to, another treaty.
- The protocol defines a ‘living modified organism’ as any living organism that possesses a novel combination of genetic material obtained through the use of modern biotechnology, and ‘living organism’ means any biological entity capable of transferring or replicating genetic material, including sterile organisms, viruses and viroids.
- ‘Modern biotechnology’: is defined in the Protocol to mean the application of in vitro nucleic acid techniques, or fusion of cells beyond the taxonomic family, that overcome natural physiological reproductive or recombination barriers and that are not techniques used in traditional breeding and selection.

- The Protocol applies to the transboundary movement, transit, handling and use of all living modified organisms that may have adverse effects on the conservation and sustainable use of biological diversity, taking also into account risks to human health.
- A number of agreements under the World Trade Organization (WTO), such as the Agreement on the Application of Sanitary and Phytosanitary Measures (SPS Agreement) and the Agreement on Technical Barriers to Trade (TBT Agreement), and the Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPs), contain provisions that are relevant to the Protocol.

41. A

- Indian Railways have launched “Operation Thirst”, as an all India drive to curb the menace of selling unauthorized packaged drinking water in railway premises.
- With the increase in the number of passengers traveling by railways (due to the closure of schools & festive/marriage season) during peak summer, the demand for drinking water also increases.
- The operation thirst drive was carried out in all major railway stations of the country on 8 and 9th July 2019.

42. B

- The Tropical Forest Alliance 2020 (TFA 2020) is a global public-private partnership in which partners take voluntary actions to reduce the tropical deforestation associated with the sourcing of commodities such as palm oil, soy, beef, and paper and pulp.
- The Tropical Forest Alliance 2020 was founded in 2012 at Rio+20 after the Consumer Goods Forum (CGF) committed to zero net deforestation by 2020 for palm oil, soy, beef, and paper and pulp supply chains in 2010.

43. A

- Astronomers have defined a new class of celestial objects called "Ploonets," which are orphaned moons that have escaped the bonds of their planetary parents.
- Planet + moon = Ploonet.
- The researchers explain that the angular momentum between the planet and its moon results in the moon escaping the gravitational pull of its parent.
- A new study suggests that the moons of gas-giant exoplanets may break away into their own orbits.

44. D

- The forty second amendment Clause (g) to Article 51A of the Indian constitution made it a fundamental duty to protect and improve the natural environment.
- Article 48A states “The State shall endeavour to protect and improve the environment and to safeguard the forests and wildlife of the country”.
- The Department of Environment was established in India in 1980 to ensure a healthy environment for the country. This later became the Ministry of Environment and Forests in 1985. This Ministry has overall responsibility for administering and enforcing environmental legislation and policies.

45. C

- Biodiversity prospecting or bioprospecting is the systematic search for biochemical and genetic information in nature in order to develop commercially valuable products for pharmaceutical, agricultural, cosmetic and other applications.
- The phases of bioprospecting start with sample collection, isolation, characterisation and move to product development and commercialisation.

46. C

- The concept of GIs was pushed into the Agreement on Trade Related Intellectual Property (TRIPS) regime by the EU as a way to protect its lucrative food and wine exports. Any association of persons, producers, organisation or authority established by or under the law can apply.
- GI law protects the right of a group of producers to represent that their product is from the protected region and stop people from outside the region from representing their products.
- The Appellate Board or the Registrar of Geographical Indications has the power to remove the geographical indication or an authorised user from the register.

47. B

- The tropical evergreen forests are naturally found mainly in the Andaman and Nicobar islands, Western slope of the Western Ghats and the North East India. Namdapha National Park is located in Arunachal Pradesh where as Silent Valley is located in Kerala as well.
- Wild Ass sanctuary is located in the Little Rann of Kutch in the state of Gujarat. The climate surrounding this protected area is arid conditions, thus tropical rainforests are not naturally observed in this protected area.

48. C

- Recently a flock of five greater flamingoes were spotted on the Coast of Hope Island in East Godavari River Estuarine Eco (EGREE) System after a long gap of 25 years.
- Hope Island and Sacramento Island are important nesting sites for globally threatened Olive Ridley turtles and green turtles and a good site for over 200 breeding fin and shellfish species.
- Preparations coupled with the natural protection provided by the Coringa mangroves and Hope Island have minimised the loss due to the cyclone Phethai. The cyclone that hit the coast at Katrenikona in the Konaseema region of East Godavari district
- The project named “Development of Kakinada Hope Island, Konaseema (Andhra Pradesh) as World Class Coastal & Eco Tourism Circuit” which was sanctioned under the Swadesh Darshan Scheme has been completed. Hope Island is situated 10 km from Coringa Wildlife Sanctuary

49. A

- Forest Ecosystem Restoration Initiative (FERI) was developed by the Korea Forest Service of the Republic of Korea, in cooperation with the Executive Secretary of the UNCBD.
- FERI directly supports developing country Parties as they operationalize national targets and plans for ecosystem conservation and restoration within the framework of the Strategic Plan and Aichi Biodiversity Targets.

50. A

- Green Bonus is a new term in the environmental parlance denoting the money which is to be given for the effort made by a country, state or community for preservation of green cover.
- It is a compensation to be given to the people for the sacrifices they have made in preserving the green cover, which not only benefits them, but also benefits others nearby and humanity as a whole.
- Recently, 11 Himalayan States of India met in Dehradun, Uttarakhand, demanding a “green bonus”, or a payment for environmental services they provide to the nation. This has brought to the surface the long-standing problem of integration of the mountain regions with the mainstream India.
- The Himalayan states stretch from J&K (which was still a State during the meet) to Tripura. The ruling government had earlier committed a financial package to address the special developmental needs of the Himalayan States. The Himalayan States argued that they paid a developmental price for maintaining forests, rivers, and other environmental goods that help the rest of the country.

51. D

- Located on the Chambal River near the tripoint of Rajasthan, Madhya Pradesh and Uttar Pradesh, it was first declared in Madhya Pradesh in 1978, and now constitutes a long narrow eco-reserve co-administered by the three states.

52. A

- UNSC Resolution 47 focuses on the complaint of the Government of India concerning the dispute over the State of Jammu and Kashmir, that India took to the Security Council in January 1948.
- After the first war in Kashmir (1947-1948), India approached the UN Security Council to bring the conflict in Kashmir to the notice of Security Council members.

53. D

- BIOFIN was initiated in response to the urgent global need to divert more finance from all possible sources towards global and national biodiversity goals. UNDP and the European Commission had launched The Biodiversity Finance Initiative - BIOFIN.
- It was soon joined by the Governments of Germany and Switzerland, followed by the Governments of Norway and Flanders in 2014. BIOFIN in India is led by the MoEFCC and hosted by the National Biodiversity Authority, Government of India.

54.D

- Any species that has any kind of interaction with plants will act as carrier and help in pollination.

55. C

Benefits of bioprospecting

- The most important benefit is the medicinal properties of the plants and other organisms. Innovation is promoted through bioprospecting, helping countries to develop new pharmaceutical products. Even our indigenous medical system is heavily based on bioprospecting.
- It also favours employment opportunities related to natural products.
- The local community and business enterprises both benefit from the economic value of the plant and organisms. The Convention on Biological Diversity, 1992 ensures that the benefits derived are not abused by enterprises.

- It creates an incentive to monitor and preserve biodiversity in order to avoid the risk of losing economic opportunities from competitors or extinction
- Technology and knowledge transfer among countries is promoted through bioprospecting
- Biodiversity conservation is boosted as local populations will become increasingly aware of the potential economic value of natural habitats.
- Traditional culture and habits are preserved by rediscovering ancient native practices.

Challenges of bioprospecting

- Bioprospecting is time-consuming which enhances the risk in terms of expected returns. There is no certainty of returns and success rate is very low.
- Traditional knowledge bears the risk of biopiracy and intellectual property, especially for the countries who are not parties to Nagoya Protocol and where the local law enforcement is weak in this area.
- Unequal capacities of host country stakeholders lead to unfair negotiation outcomes over benefit sharing. The negotiation of bioprospecting contracts can be difficult, including the determination of a fair price for exploration and commercialisation.
- Bioprospecting involving marine environment is prone to legal risks, including of litigation in multiple jurisdictions or conflicts of jurisdiction like in Antarctica.
- Unsustainable harvesting of resources and other negative environmental impacts can damage the biodiversity and environment.
- The concerns can be largely dealt with stronger legal and enforcement mechanisms but the local community and the enterprises will have to work responsibly to ensure that the prospects of biodiversity are utilised sustainably.

56. C

- WMO Greenhouse Gas Bulletin published today shows that globally averaged concentrations of CO₂ reached 407.8 parts per million in 2018, up from 405.5 ppm in 2017. Global levels of CO₂ crossed the 400 ppm "benchmark" in 2015.
- Urban areas already account for the vast share of the world's gross domestic product and more than 70 percent of GHG emissions

57. B

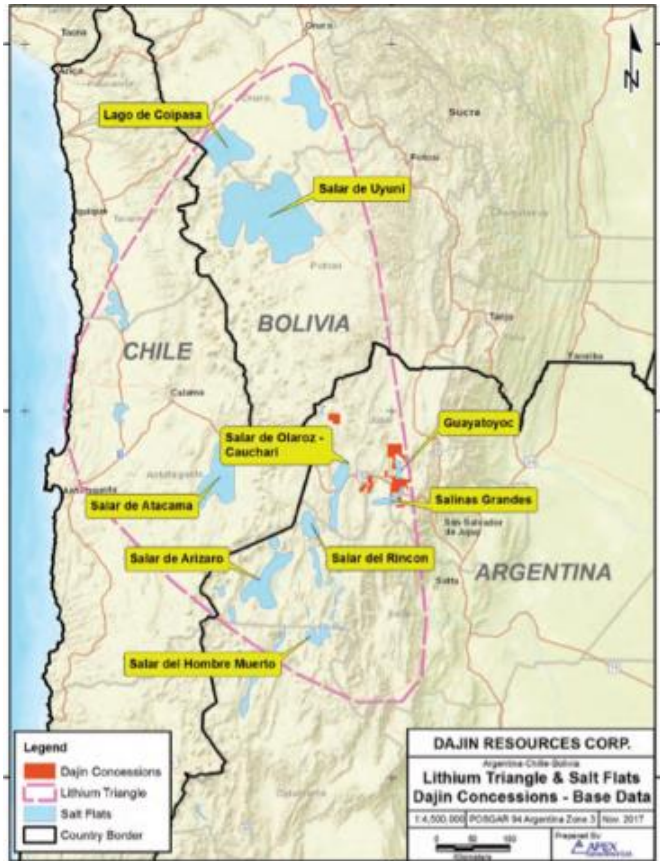
- Logic: Think about Russia-India collaboration in India's space missions like cryogenic technology etc
- Explanation: The Union Cabinet chaired by Prime Minister Narendra Modi has recently approved the setting up of ISRO Technical Liaison Unit (ITLU) at Moscow, Russia.
- This will help ISRO to collaborate with Space agencies/industries in Russia and neighbouring countries for mutually synergetic outcomes.

58. D

- The mugger crocodile is widely distributed throughout Asia. Its range extends through Bangladesh, Iran, India, Nepal, Pakistan, and Sri Lanka. It is an adaptive species that can survive in a wide range of habitats.

- The saltwater crocodile is a crocodylian native to saltwater habitats and brackish wetlands from India's east coast across Southeast Asia and the Sundaic region to northern Australia and Micronesia. As the name suggests, it exists in major salt water areas.
- Gharials are long crocodiles native to northern India and are distinguished by their long, narrow snouts. They are naturally found in the Chambal river.

59. A



- Numerous exploration companies have turned their attention to the vast Lithium Triangle in Argentina, Chile and Bolivia. It has been estimated that South America's Lithium Triangle hosts about 54% of the world's lithium resources.

60. D

- Among the States, Kerala and Himachal Pradesh are the front runners with an SDG India Index score of 69. Among the UTs, Chandigarh is a front-runner with a score of 68.
- Kerala's top rank is attributed to its superior performance in providing good health, reducing hunger, achieving gender equality and providing quality education.
- Himachal Pradesh ranks high in providing clean water and sanitation, in reducing inequalities and preserving mountain ecosystem.
- Among the UTs, Chandigarh takes the lead because of its exemplary performance in providing clean water and sanitation to its people.
- On the other hand states like Assam, Bihar and UP have featured badly in the index as their score was below 49.

- The Index can be useful to States/UTs in assessing their starting point on the SDGs in the following ways, by
- Supporting States/UTs to benchmark their progress against national targets and performance of their peers to understand the reasons for differential performance and devise better strategies to achieve the SDGs by 2030
- Supporting States/UTs to identify priority areas in which they need to invest and improve by enabling them to measure incremental progress.
- Highlighting data gaps related across SDGs for India to develop its statistical systems at the national and State levels.

61. B

- National Agricultural Higher Education Project: The ICAR has recently launched Rs 1100 crore ambitious National Agricultural Higher Education Project (NAHEP) to attract talent and strengthen higher agricultural education in the country.
- This project will be funded by the World Bank and the Indian Government on a 50:50 basis.
- The objective of the NAHEP for India is to support participating agricultural universities and ICAR in providing more relevant and higher quality education to Agricultural University students.
- In addition, a four year degree in Agriculture, Horticulture, Fisheries and Forestry has been declared a professional degree.

62. D

SDGs and India's Commitment

- Clean Fuel
 - India introduces BS-VI petrol and diesel.
 - Delhi will be the first city to leapfrog from BS-IV to BS-VI.
 - 13 major cities like Mumbai, Chennai, Bengaluru, etc. will make the shift from 1st Jan 2019.
 - The rest of the country will make the change from April 2020 next year.
- No Plastics
 - India has pledged to eliminate all single-use plastic in the country by 2022.
- International Solar Alliance (ISA)
 - ISA is a group of 121 solar rich countries which are situated either on or between the tropics.
 - Aims to deploy over 1000 GW of solar energy and mobilize more than \$1000 billion into solar power by 2030.
- Climate Change
 - To reduce the emissions intensity of its GDP by 33 to 35 percent by 2030 from 2005 levels.
 - To achieve about 40 percent cumulative electric power installed capacity from non-fossil fuel based energy resources by 2030, with the help of transfer of technology and low-cost international finance, including from Green Climate Fund.
 - To create an additional carbon sink of 2.5 to 3 billion tonnes of CO₂ equivalent through additional forest and tree cover by 2030.

63. B

- Black softshell turtle or Bostami turtle is a species of freshwater turtle found in India and Bangladesh. As per the IUCN Red List, it is declared to be extinct.
- Golden Langur is a monkey found in a small region of western Assam, India and in the neighboring foothills of the Black Mountains of Bhutan.
- Lion Tailed macaque is an Old World monkey endemic to the Western Ghats of South India.

64. B

- The recently adopted National Wildlife Action Plan 2017-31 has suggested to amend the Wildlife Protection Act, 1972 in order to ensure sustainable use of wetland resources in protected wetlands.
- Thinking by logic, we can reach a conclusion that the protected lands are governed by the Wildlife Protection Act, 1972.

65. A

- Intergovernmental Panel on Climate Change published its special report on the ocean and cryosphere in a changing climate. The report notes that the global climate changes are increasingly pushing adaptation responses to their limits, with the most vulnerable people having the lowest capacity to respond.

66. B

- Cyber hygiene relates to the practices and precautions users take with the aim of keeping sensitive data organized, safe, and secure from theft and outside attacks.

67. B

- The Sustainable Development Goals (SDGs) were born at the United Nations Conference on Sustainable Development in Rio de Janeiro in 2012. The objective was to produce a set of universal goals that meet the urgent environmental, political and economic challenges facing the world.
- The SDGs are a bold commitment to finish what the Millennium Development Goals (MDGs) started, and tackle some of the more pressing challenges. All 17 Goals interconnect, success in one-goal motivates for the success of others.
- For example, dealing with the threat of climate change impacts how we manage our fragile natural resources, achieving gender equality or better health helps eradicate poverty, and fostering peace and inclusive societies will reduce inequalities and help economies prosper.

68. A

- Usually news headlines can be seen in newspaper like “Government cracks the whip on purse seine fishing” and ‘Allow modified purse seine nets in fishing’
- Ghost nets related to olive ridley turtles (Trawling and the use of gill-nets, purse seine and FADs (Fish Aggregating Devices) are some problematic fishing techniques that create ghost nets.)
- Seine fishing is a method of fishing that employs a fishing net called a seine, that hangs vertically in the water with its bottom edge held down by weights and its top edge buoyed by floats. Seine nets can be deployed from the shore as a beach seine, or from a boat. Boats deploying seine nets are known as seiners.

69. C

- Development projects in the past were undertaken without any consideration to their environmental consequences. In view of the colossal damage to the environment, governments and public are now concerned about the environmental impacts of developmental activities. Thus, to assess the environmental impacts, the mechanism of EIA was introduced.
- EIA is a tool to anticipate the likely environmental impacts that may arise out of the proposed developmental activities and suggest mitigation measures and strategies. EIA was introduced in India in 1978, with respect to river valley projects.
- Later the EIA legislation was enhanced to include other developmental sections. EIA comes under Notification on Environmental Impact Assessment (EIA) of developmental projects 1994 under the provisions of Environment (Protection) Act, 1986.
- Besides EIA, the Government of India under Environment (Protection) Act 1986 issued a number of other notifications, which are related to environmental impact assessment. EIA is now mandatory for more than 30 categories of projects, and these projects get Environmental Clearance (EC) only after the EIA requirements are fulfilled.
- Environmental clearance or the 'go ahead' signal is granted by the Impact Assessment Agency in the Ministry of Environment and Forests, Government of India.

70. D

- Tardigrades are also known as water bears or moss piglets. They are a phylum of water-dwelling eight legged segmented micro-animals. They have been found everywhere, from mountaintops to the deep sea and mud volcanoes, from tropical rain forests to the Antarctic.
- They are among the most resilient animals known, with individual species able to survive extreme conditions. They have survived exposure to outer space. They can survive extremes of temperature and pressure, including the frigid vacuum of space.

71. C

- The Global Forest Resources Assessment (FRA) reports on the status and trends of the world's forest resources. It is led by the Forestry Department of the Food and Agriculture Organization of the United Nations.
- South America has one of the highest percentage share of forest area coverage in the world. However, it has witnessed an average loss of 9% forest since 1990.

72. C

- A deadly combination of canine distemper virus and babesiosis, a disease caused by tick-borne parasites, is killing Asiatic lions in the Gir forest sanctuary in Gujarat.
- Endotheliotropic herpesviruses or Elephantid betaherpesvirus 1 is a type of herpesvirus, which can cause a highly fatal hemorrhagic disease when transmitted to young Asian elephants.

73. C

- EIA applies to public and private sections. The six main players are:
 - ★ Those who propose the project
 - ★ The environmental consultant who prepare EIA on behalf of project proponent.

- ★ Pollution Control Board (State or National).
- ★ Public has the right to express their opinion.
- ★ The Impact Assessment Agency.
- ★ Regional centre of the Ministry of Environment and Forest.
- The EIA process looks into the following components of the environment.
 - ❖ Air environment
 - Quality of ambient air present and predicted.
 - Meteorological data: Wind speed, direction, humidity etc.
 - Quantity of emission likely from project.
 - Impact of the emission on the area.
 - Pollution control desires/air quality standards.
 - ❖ Noise
 - Levels of noise present and predicted
 - Strategies for reducing noise pollution.
 - ❖ Water environment
 - Existing ground and surface water resources, their quality and quantity within the zone.
 - Impact of proposed project on water resources.
 - ❖ Biological environment
 - Flora and fauna in impact zone.
 - Potential damage (likely) due to project, due to effluents, emissions and landscaping.
 - Biological stress (prediction).
 - ❖ Land environment
 - Study of soil characteristics, land use, and drainage pattern, and the likely adverse impact of the project.
 - Impact on historical monuments and heritage site.

74. A

- Majuli is most popular as the world's largest river island and the first river island to be made into a district.
- Dailong village is home to the rare and endangered citrus indica or the Indian wild orange. The Indian wild orange is the most primitive ancestor to all cultivated citrus fruits in the world. A total area of 11.35 sq.km has been declared as a Biodiversity Heritage Site.
- The Shola vegetation of Hogrekan is home to a number of unique medicinal plants. Shola forests are stunted tropical montane forest, interspersed by undulating grasslands. Due to its proximity to Bhadra Wildlife Sanctuary and Yemmedode Tiger Reserve, it also serves as an important wildlife corridor.

75. C

- Kurki is attachment of farmers' land by banks or arhtiyas/sahukars/traders (commission agents and private money lenders) in the event of non-payment of loan or debt.

- <https://indianexpress.com/article/explained/explained-why-kurki-ban-on-farm-land-is-not-working-in-punjab-villages-5912156/>

76. B

- The India Biodiversity Awards is a joint initiative by the Ministry of Environment, Forest and Climate Change, National Biodiversity Authority and the United Nations Development Programme.
- It is an innovative mechanism to identify and recognize the efforts of individuals, communities and institution working towards biodiversity conservation, sustainable use of biological resources, access and benefit sharing and biodiversity governance.
- The award recognizes the effort of an institution towards conservation of wild species, management and restoration of their habitats.

77. A

- The Reserve Bank of India (RBI) has constituted a six-member task force, headed by Canara Bank chairman T.N. Manoharan, on the development of secondary market for corporate loans.
- The terms of reference of the task force would include review of the existing state of the market for loan sale or transfer in India as well as the international experience in loan trading.
- In India, banks sell their stressed loans to the Asset Reconstruction Companies, but have practically no other alternatives. However, globally, there is a healthy corporate loan market where banks can offload their stressed assets and those get traded.

78. B

- Oryx is a genus consisting of four large antelope species called oryxes. Three of them are native to arid parts of Africa, and the fourth to the Arabian Peninsula. Thus it is not naturally found in India.
- Tibetan antelope or chiru is a medium-sized bovid native to the Tibetan plateau. Fewer than 150,000 mature individuals are left in the wild, but the population is currently thought to be increasing. The increase can be attributed to the measures by country like India which put a ban on trade of shahtoosh shawl.
- Cheetah is the only animal in recorded history to become extinct from India due to unnatural causes. Thus, they are not naturally found in India.

79.D

- e-AUSHADHI portal for Online Licensing System of AYUSH Medicine: Portal is intended for increased transparency, improved information management facility, improved data usability and increased accountability.

80. B

- Albedo is a non-dimensional, unitless quantity that indicates how well a surface reflects solar energy. Albedo (\hat{I}_{\pm}) varies between 0 and 1. A typical ocean albedo is approximately 0.06, while bare sea ice varies from approximately 0.5 to 0.7. This means that the ocean reflects only 6 percent of the incoming solar radiation and absorbs the rest, while sea ice reflects 50 to 70 percent of the incoming energy.

- Snow has an even higher albedo than sea ice, and so thick sea ice covered with snow reflects as much as 90 percent of the incoming solar radiation. This serves to insulate the sea ice, maintaining cold temperatures and delaying ice melt in the summer.
- After the snow does begin to melt, and because shallow melt ponds have an albedo of approximately 0.2 to 0.4, the surface albedo drops to about 0.75.

81. A

- On January 30, 2019, the Indian Sundarban was accorded the status of ‘Wetland of International Importance under the Ramsar Convention.
- It comprises hundreds of islands and a network of rivers, tributaries and creeks in the delta of the Ganga and the Brahmaputra at the mouth of the Bay of Bengal in India and Bangladesh.
- Located on the southwestern part of the delta, the Indian Sundarban constitutes over 60% of the country’s total mangrove forest area.
- It is the 27th Ramsar Site in India, and with an area of 4,23,000 hectares is now the largest protected wetland in the country.

82. C

- Pangti is a village that had earned global notoriety in 2012 for the massacre of the handsome Amur falcons. They have turned conservationists of the Amur falcons drastically.
- The Pangti Story is a 26-minute documentary that explores the transition of an entire village from slaughtering hundreds and thousands of these winged visitors to becoming conservationists which won the 65th National Awards for Best Environment Film in the non-feature category in India

83. B

- Kashmir accounts for over 90 per cent of India’s walnut production and is a major exporter of the nutritious nut. Its timber has a high demand in the region’s handicrafts industry, which is the second largest after fruits in the valley.
- Walnut trees are naturally grown in the alpine conditions needing very low mean annual temperature.

84. C

- Recently some animals have been declared vermins for a specified period by the Central Government. In these states these animals are shifted to schedule V of the Wildlife Protection Act.
- Wildlife Protection Act, 1972 empowers the states to send a list of wild animals to the Centre requesting it to declare them vermin for selective slaughter. Chief Wildlife Warden (CWLW) is the statutory authority, under the Wildlife Protection Act, who heads the Wildlife Wing of the department and exercises complete administrative control over Protected Areas (PAs) within a state. He/she is appointed by the state government itself.

85. D

- Critically Endangered Mammals
 1. Pygmy Hog (*Porcula salvania*).
 2. Andaman White-toothed Shrew (*Crocidura andamanensis*)
 3. Jenkin’s Andaman Spiny Shrew (*Crocidura jenkinsi*)

4. Nicobar White-tailed Shrew (*Crocidura nicobarica*)
 5. Kondana Rat (*Millardia kondana*)
 6. Large Rock Rat or Elvira Rat (*Cremnomys elvira*)
 7. Namdapha Flying Squirrel (*Biswamoyopterus biswasi*)
 8. Malabar Civet (*Viverra civettina*)
 9. Sumatran Rhinoceros (*Dicerorhinus sumatrensis*)
 10. Javan Rhinoceros (*Rhinoceros sondaicus*)
- Critically Endangered Reptiles
 1. Gharial (*Gavialis gangeticus*)
 2. Hawksbill Turtle (*Eretmochelys imbricata*)
 3. Leatherback Turtle (*Dermochelys coriacea*)
 4. Four-toed River Terrapin or River Terrapin (*Batagur baska*)
 5. Red-crowned Roofed Turtle or the Bengal Roof Turtle (*Batagur kachuga*)
 6. Sispara day gecko (*Cnemaspis sisparensis*)
 - Major Critically Endangered Amphibians
 1. Anamalai Flying Frog (*Rhacophorus pseudomalabaricus*)
 2. Gundia Indian Frog (*Indirana gundia*)
 3. Kerala Indian Frog (*Indirana phrynoderma*)
 4. Charles Darwin's Frog (*Ingerana charlesdarwini*)
 5. Kottigehara Bubble-nest Frog (*Micrixalus kottigeharensis*)
 6. Amboli Bush Frog (*Pseudophilautus amboli*)
 - Critically Endangered Fishes
 1. Pondicherry Shark (*Carcharhinus hemiodon*)
 2. Ganges Shark (*Glyphis gangeticus*)
 3. Knife-tooth Sawfish (*Anoxypristis cuspidata*)
 4. Large-tooth Sawfish (*Pristis microdon*)
 5. Long-comb Sawfish or Narrow-snout Sawfish (*Pristis zijsron*)
 - Critically Endangered Corals
 1. Fire corals (*Millepora boschmai*)
 - Critically Endangered Spiders
 1. Rameshwaram Ornamental or Rameshwaram Parachute Spider (*Poecilotheria hanumavilasumica*)
 2. Gooty Tarantula, Metallic Tarantula or Peacock Tarantula (*Poecilotheria metallica*)

86. C

- United Nations Forum on Forests is a high-level intergovernmental policy forum. The parent organisation is UN Economic and Social Council. UN General Assembly recently adopted the first ever UN Strategic Plan for Forests 2017-2030.
- The ITTO was established under the International Tropical Timber Agreement 1983 (ITTA 1983), negotiated under the auspices of the United Nations Conference on Trade and Development. The ITTA 1983 came into force on 1 April 1985.

87. D

- Biodiversity Management Committees are established under the provisions of Biodiversity Management Act, 2002.
- The BMC is constituted by the local body with members of the participatory forest/ natural resources management committees members based on the local conditions.
- Once a BMC is formed, its operation shall commence immediately and a set of tasks shall be completed within 12 months. The tenure of BMC will be five years or co terminus with the tenure of the local body.

88. D

- The International Union for Conservation of Nature (IUCN) is the world's oldest and largest global environmental organisation. Founded in 1948, today IUCN the largest professional global conservation network. IUCN has more than 1,200 member organizations including 200+ government and 900+ non-government organizations. The Union's headquarters are located in Gland, near Geneva, in Switzerland.
- Governance by a Council elected by member organizations every four years at the IUCN World Conservation Congress.
- Funded by governments, bilateral and multilateral agencies, foundations, member organisations and corporations.
- Official Observer Status at the United Nations General Assembly.
- The work is framed by a Global Programme, developed with and approved by IUCN member organisations every four years. The current programme runs from 2012 to 2016. IUCN's Global Programme is coordinated by IUCN's Secretariat and delivered in conjunction with IUCN member organisations, Commissions and IUCN's theme-based programmes.
- Threatened species are any species which are vulnerable to extinction in the near future. International Union for Conservation of Nature treats threatened species not as a single category, but as a group of three categories: vulnerable, endangered, and critically endangered, depending on the degree to which they are threatened

89. C

- The decay of the pristine Shola ecosystem started over half a century back when the government decided to introduce acacia plantations in the region for economic gains. After their introduction, the invasive species proliferated due to changing weather pattern. Over the years, the nights have become warmer and the amount of frost has reduced in the Nilgiris
- Supreme Court in the year 2012 made environmental clearance mandatory for all mining sites. Minor mineral mines have to undergo the Environmental Impact Assessment (EIA) process under the Environment Protection Act of 1986.

90. A

- Launched in 1971, UNESCO's Man and the Biosphere Programme (MAB) is an Intergovernmental Scientific Programme that aims to establish a scientific basis for the improvement of relationships between people and their environments.
- MAB combines natural and social sciences, economics and education to improve human livelihoods and the equitable sharing of benefits, and to safeguard natural and managed ecosystems,

thus promoting innovative approaches to economic development that are socially and culturally appropriate, and environmentally sustainable.

- Its World Network of Biosphere Reserves currently counts 701 sites in 124 countries all over the world, including 21 transboundary sites.

91. B

- The Global Environment Facility (GEF) was established on the eve of the 1992 Rio Earth Summit to help tackle our planet's most pressing environmental problems.
- GEF funds are available to developing countries and countries with economies in transition to meet the objectives of the international environmental conventions and agreements.
- GEF support is provided to government agencies, civil society organizations, private sector companies, research institutions, among the broad diversity of potential partners, to implement projects and programs in recipient countries.

92. A

- The Global Biodiversity Outlook (GBO) is a periodic report that summarises the latest data on the status and trends of global biodiversity.
- It is the flagship publication of the Convention on Biological Diversity and summarises the progress made towards achieving the objectives of the Convention, such as the Aichi Targets and identifies key actions to achieve these.
- The Outlook is prepared by the Secretariat of the Convention on Biological Diversity drawing on information from national biodiversity strategies and action plans, national reports submitted by the Parties to the Convention, scientific literature, scenarios, and biodiversity indicators.
- There have been four editions of the Global Biodiversity Outlook and the fifth edition will be launched in May 2020.

93. D

- India's soil biodiversity is in grave peril, according to the Global Soil Biodiversity Atlas prepared by the World Wide Fund for Nature.
- The WWF's 'risk index' for the globe — indicating threats from loss of above-ground diversity, pollution and nutrient over-loading, over-grazing, intensive agriculture, fire, soil erosion, desertification and climate change — shows India among countries whose soil biodiversity faces highest level of risk.
- Soil biodiversity encompasses the presence of micro-organisms, micro-fauna (nematodes and tardigrades for example), and macro-fauna (ants, termites and earthworms).

94. B

- Government of India consolidated the intervention on participatory forest management through the National Forest Policy and then through enabling guidelines in 1990 on Joint Forest Management. Through this guideline, Joint Forest Management Committees were established in India.
- The Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006 confers customary rights like grazing, fishing and collection of Minor Forest Produce etc.

95. D

- Trade-Related Aspects of Intellectual Property Rights (TRIPS) is an international legal agreement between all the member nations of the World Trade Organization used to safeguard intellectual property rights across the world. India used Article 27(3)(b) of TRIPS which allows WTO members to exclude plants from patentability.
- The International Convention for the Protection of New Varieties of Plants (UPOV) is an intergovernmental organisation set up to essentially protect the interest of corporate plant breeders. India has stood steadfast in **not joining** UPOV. This is because the plant breeder rights it prescribes severely limit farmers' freedoms.

96. C

- Rotterdam Convention creates legally binding obligations for the implementation of the Prior Informed Consent (PIC) procedure. It built on the voluntary PIC procedure, initiated by UNEP and FAO in 1989 and ceased on 24 February 2006.
- The Convention covers pesticides and industrial chemicals that have been banned or severely restricted for health or environmental reasons by Parties and notified by Parties for inclusion in the PIC procedure.

97. D

- Sriharikota is a barrier island off the Bay of Bengal coast located in the Nellore district of Andhra Pradesh, offshore the Pulicat lake.
- Wheeler island or the Abdul Kalam island is located offshore the Bhitarkanika National Park. Mahanadi delta is located further southwards.
- Sagar Island is an island in the Ganges delta, lying on the Continental Shelf of Bay of Bengal. Since it receives heavy sedimentation, it will not be suitable for the formation of coral reefs.
- Chilika Lake is a brackish water lagoon, spread over the Puri, Khurda and Ganjam districts of Odisha state on the east coast of India.

98. D

- Toda tribal groups inhabit the Nilgiri hills of Tamilnadu who have unique language, customs and traditions etc. They herd buffaloes for living.
- Niyamgiri hill range is located in Odisha state. It is home to the Dongria Kondh tribe. Niyamgiri is an area of densely forested hills, deep gorges and cascading streams. The place came to news because of the issues of threat of mining by Vedanta Resources.
- Maldharis are a group of pastoral community who inhabit the Banni grasslands.

99. D

- UNCCD was established in 1994. It is the sole legally binding international agreement linking environment and development to sustainable land management.
- It is a convention stemming directly through recommendation of the Rio Conference's Agenda 21. To help publicise the Convention, 2006 was declared "International Year of Deserts and Desertification".

- Focus areas: The Convention addresses specifically the arid, semi-arid and dry sub-humid areas, known as the drylands, where some of the most vulnerable ecosystems and peoples can be found.
- Aim: Its 197 Parties aim, through partnerships, to implement the Convention and achieve the Sustainable Development Goals. The end goal is to protect land from over-use and drought, so it can continue to provide food, water and energy.
- The Ministry of Environment, Forest and Climate Change is the nodal Ministry for this Convention.

100. B

- Rio+20 was one of the biggest international gatherings of 2012, and the largest event in the history of the United Nations. It presented an opportunity to redirect and re-energise political commitment to the three dimensions of sustainable development: economic growth, social improvement and environmental protection.
- Rio+20 focused on two themes:
 - A Green economy in the context of sustainable development and poverty eradication.
 - The institutional framework for sustainable development.