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| Division | 12th |
| Subject | Biology |
| Chapter | Biodiversity and Conservation |
| Author | Anand |
| Category | 1 |

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| Habitat loss and fragmentation, over exploitation, alien species invasion and co-extinction are causes for |
| population explosion |
| competition |
| biodiversity loss |
| natality. |
| c |
| Evil quartet |
| There are four major causes (The Evil Quartet) of biodiversity losses : habitat loss and fragmentation, over exploitation, alien species invasion and co-extinctions. |
| Biodiversity |

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| Which of the following regions of the globe exhibits highest species diversity? |
| Western Ghats of India |
| Madagascar |
| Himalayas |
| Amazon forests |
| d |
| Brazil |
| The correct option is Amazon forests Brazil is home to over two-thirds of the Amazon jungle.  The Amazon is reported to host 2.5 million kinds of insects. More than half the species in the Amazon rainforest are considered to dwell in the canopy. Production in regions that get rainfall or water from the Amazon accounts for 70% of South America's GDP. |
| Species diversity |

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| According to Robert May, the global species diversity is about  2020 |
| 1.5 million |
| 20 million |
| 50 million |
| 7 million. |
| d |
| Robert Mary |
| The correct option is 7 million; Species diversity refers to the different species present in a particular area. It has two components- species richness and species evenness. Species richness represents the number of species found in an area, whereas species evenness is the relative abundance of each species. According to Robert May, the global species diversity is about 7 million. |
| Species diversity |

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| Which of the following is the most important for animals and plants being driven to extinction? |
| Alien species invasion |
| Habitat loss and fragmentation |
| Drought and floods |
| Economic exploitation |
| b |
| Habitat loss |
| Habitat loss and fragmentation is the most important cause of driving the animals and plants to extinction. When large habitats are broken into small fragments due to various human activities, mammals and birds requiring large territories and certain animals with migratory habitats are badly affected, leading to population declines. The same can be applicable to the plant (forest) loss and degradation as millions of species are being cut and cleared for the expansion of agricultural land, harvesting timber, forest fire, as well as overgrazing. |
| Genetic diversity |

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| Decline in the population of Indian native fishes due to introduction of Clarias gariepinus in river Yamuna can be categoriesd as  Odisha NEET 2019 |
| co-extinction |
| habitat fragmentation |
| over-exploitation |
| alien species invasion. |
| d |
| Biodiversity Loss |
| The correct option is Alien species invasion; Earth is considered the treasure of a variety of species. There is a rapid decline in the biological wealth of earth i.e., there is loss of biodiversity on earth. Such loss of biodiversity is primarily because of human activities. |
| Species Diversity |

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| Alexander von Humboldt described for the first time  2017 |
| laws of limiting factor |
| species area relationships |
| population growth equation |
| ecological biodiversity. |
| b |
| Species relationship |
| Alexander von Humboldt described species area relationship for the first time. He observed that within a region, species richness increases with increasing explored area, but only upto a limit. |
| Species diversity |

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| Which of the following is correctly matched?  NEET-II 2016 |
| Aerenchyma – Opuntia |
| Age pyramid – Biome |
| Parthenium - Threat to hysterophorus biodiversity |
| Stratification – Population |
| c |
| Congress grass |
| Parthenium hysterophorus is commonly known as congress grass or carrot weed. It is herbaceous annual plant of Family Asteraceae. It is a deadly invasive, noxious weed infesting cropped and non-cropped areas. It rapidly colonises area replacing the native vegetation and causes a number of human health related problems such as skin allergy, rhinitis and eye irritations. Also, being toxic and unpalatable it causes fodder scarcity. Hence, it is considered a threat to the biodiversity. |
| Species diversity |

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| Red list contains data or information on  NEET-II 2016 |
| all economically important plants |
| plants whose products are in international trade |
| threatened species |
| marine vertebrates only. |
| c |
| Extinction risk of species |
| A red data book or red list is a catalogue of taxa facing risk of extinction. Red data book or red list was initiated in 1963. |
| Total species on earth and in India |

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| Which is the national aquatic animal of India?  NEET-I 2016 |
| Blue whale |
| Sea-horse |
| Gangetic shark |
| River dolphin |
| d |
| Ganga |
| River dolphin found in holy river Ganga, Brahmaputra, Indus and its tributaries is the National aquatic animal of India. Presence of river dolphin in Ganga indicates pure and freshwater. |
| Biodiversity in India |

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| Which of the following is the most important cause of animals and plants being driven to extinction?  NEET-I 2016 |
| Habitat loss and fragmentation |
| Co-extinctions |
| Over-exploitation |
| Alien species invasion |
| a |
| Urbanization and industrialisation |
| Destruction of natural habitat causes the most serious threat to the biodiversity. Over-population, urbanisation and industrialisation lead to the destruction or fragmentation of natural habitats to fulfill the requirement of additional land. Loss of habitat results in annihilation of plants, microorganisms and forcing out of animals which in alien lands die out after some time. Fragmentation of habitats results in disruption of complex interactions amongst species, destruction of species in the cleared regions, annihilation of species restricted to deeper undisturbed parts of forests and decreased biodiversity in the habitat fragments. |
| Patterns of biodiversity |

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| A species facing extremely high risk of extinction in the immediate future is called  2014 |
| vulnerable |
| endemic |
| critically endangered |
| extinct. |
| c |
| Endangered |
| The taxon under critically endangered category are facing very high risk of extinction in the wild and can become extinct at any moment in the immediate future. |
| Causes of biodiversity loss |

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| The organization which publishes the Red list of species is  2014 |
| ICFRE |
| UNEP |
| IUCN |
| WWF. |
| c |
| Conservation of natural and natural resources |
| IUCN is International Union of Conservation of Nature and Natural Resources which is now called World Conservation Union (WCU). It has its headquarters at Morges, Switzerland. It maintains a red data book or red list which is a catalogue of taxa facing risk of extinction. Red data book or red list was initiated in 1963. The Red list of year 2000 has made assessment of 18,000 species. |
| Biodiversity conservation |

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| Which of the following represent maximum number of species among global biodiversity? |
| Fungi |
| Mosses and Ferns |
| Algae |
| Lichens |
| a |
| Eukaryotic |
| Fungi is a large kingdom of over 72,000 species. They are achlorophyllous, heterotrophic, spore forming, nonvascular, eukaryotic organisms which contain chitin or fungal cellulose in their walls and possess glycogen as food reserve. They are major decomposers of many ecosystems and are associate of many organisms. |
| Important of species diversity in ecosystem |

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| Which of the following has maximum genetic diversity in India?  Karnataka NEET 2013, 2011 |
| Mango |
| Wheat |
| Groundnut |
| Rice |
| d |
| Oryzae sativa |
| Genetic diversity is the diversity in the numbers and types of genes as well as chromosomes present in different species and the variations in the genes and their alleles in the same species. Oryza sativa (rice) has 32,000-50,000 genes. |
| Important of species diversity in ecosystem |

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| Which organization publishes the 'Red Data Book'?  Karnataka NEET 2013 |
| IUCN |
| UNEP |
| WWF |
| GEF |
| a |
| Conservation of nature and natural resources |
| The correct option is IUCN (International Union for Conservation of Nature and Natural Resources) is an organization that publishes the Red data book. The Red data book is the book having records of all the endangered species belonging to animal, plant and fungi kingdom. |
| Biodiversity conservation |

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| Which one of the following have the highest number of species in nature?  2011 |
| Fungi |
| Insects |
| Birds |
| Angiosperms |
| b |
| Class insecta |
| Insects have highest number of species found in nature. The insecta is the largest class of animals. It has over species. The insects are the most successful land invertebrates and the only major competitors with humans for dominance in the world. |
| Important of species diversity in ecosystem |

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| Biodiversity of a geographical region represents  Mains 2011 |
| endangered species found in the region |
| the diversity in the organisms living in the region |
| genetic diversity in the dominant species of the region |
| species endemic to the region. |
| b |
| Wide variety of species |
| Biodiversity (biological diversity) is the existence of a wide variety of species (species diversity) or other taxa of plants, animals and microorganisms in a natural community or habitat, or of communities within a particular environment (ecological diversity), or of genetic variation within a species (genetic diversity). The maintenance of a high level of biodiversity is important for the stability of ecosystems. |
| Why should we conserve biodiversity |

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| Study the four statements (i-iv) given below and select the two correct ones out of them.  (i) A lion eating a deer and a sparrow feeding on grains are ecologically similar in being consumers.  (ii) Predator star fish Pisaster helps in maintaining species diversity of some invertebrates.  (iii) Predators ultimately lead to the extinction of prey species.  (iv) Production of chemicals such as nicotine, strychnine by the plants are metabolic disorders. The two correct statements are  2010 |
| (ii) and (iii) |
| (iii) and (iv) |
| (i) and (iv) |
| (i) and (ii). |
| d |
| Biodiversity loss by predation |
| Predator and prey evolve together. The prey is part of the predator's environment, and the predator dies if it does to get food, so it evolves whatever is necessary in order to eat the prey. Likewise, the predator is part of the prey's environment, and the prey dies if it is eaten by the predator, so it evolves whatever is necessary to avoid being eaten. So, predators cannot lead to the extinction of prey species. Nicotine is an alkaloid found in the night shade family of plants (Solanaceae) that constitutes approximately of dry weight of tobacco, with biosynthesis taking place in the roots and accumulation occurring in the leaves. Strychnine is an alkaloid plant toxin extracted chiefly from Nux vomica; formerly used as a stimulant. These are not metabolic disorder products but are metabolic wastes. |
| Habitat loss and fragmentation |

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| The Indian rhinoceros is a natural inhabitant of which one of the Indian states?  Mains 2010 |
| Uttarakhand |
| Uttar Pradesh |
| Himachal Pradesh |
| Assam |
| d |
| North east region of India |
| The Indian rhinoceros is a endemic of north-east region of India. Kaziranga National Park (Assam) is famous for rhinoceros. |
| Examples of some endangered species |

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| Which one of the following has maximum genetic diversity in India?  2009 |
| Mango |
| Wheat |
| Tea |
| Teak |
| a |
| Magnifera indica |
| The correct option is Mango, When organisms have a number of genetic variations among the species, then it is referred to as Genetic diversity. Here, Mango has maximum genetic diversity as it includes more than 1000 varieties. In India, rice has over 5000 species and it is the most genetically diverse plant. |
| Genetic diversity |

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| The table gives the populations (in thousands) of ten species in four areas consisting of the number of habitats given within brackets against each. Study the table and answer the question which follows.   |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | |  | Species, and their populations (in thousands) | | | | | | | | |  | | in the areas |  |  |  |  |  |  |  |  |  |  | | A (11) | 2.3 | 1.2 | 0.52 | 6.0 | - | 3.1 | 1.1 | 9.0 | - | 10.3 | | p (11) | 10.2 | - | 0.62 | - | 1.5 | 3.0 | - | 8.2 | 1.1 | 11.2 | | r (13) | 11.3 | 0.9 | 0.48 | 2.4 | 1.4 | 4.2 | 0.8 | 8.4 | 2.2 | 4.1 | | s (12) | 3.2 | 10.2 | 11.1 | 4.8 | 0.4 | 3.3 | 0.8 | 7.3 | 11.3 | 2.1 |   Which area out of shows maximum species diversity?  2008 |
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| q |
|  |
| a |
| Richness of species |
| Species diversity is related to the variety in the number and richness of the species within a region and is measured at the level of 'species'. Thus, it is the product of species richness and species evenness. Species richness refers to the number of species per unit area. As the area of the site increases, the number of species also increases due to more availability of natural resources. Species evenness is the relative abundance with which each species is represented in an area. Thus, variation in the number of species, kinds of species as well as the number of individuals per species lead to greater diversity. In the given table, the area which shows maximum species diversity is ' '. |
| Species diversity |

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| Which one of the following pairs of organisms are exotic species introduced in India?  2007 |
| Lantana camara, water hyacinth |
| Water hyacinth, Prosopis cineraria |
| Water hyacinth, Prosopis cineraria |
| Ficus religiosa, Lantana camara |
| a |
| Water hyacinth |
| In India, large variety of exotic animal and plant species have been introduced from other parts of the world through the ages. Some exotic plants have turned into weeds, multiplying fast and causing harm to the ecosystem, e.g. water hyacinth and Lantana camara. |
| Examples of some endangered species in India |

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| One of the endangered species of Indian medicinal plants is that of  2007 |
| Ocimum |
| Nepenthes |
| Garlic |
| Podophyllum. |
| d |
| Indian medicinal plant |
| An endangered species is a population of an organism which are at risk of becoming extinct because it is either a few in number or threatened by changing environmental or predation parameters. Podophyllum is such an endangered species of Indian medicinal plants. They contain, podophyllotoxin and podophyllin that is used as a purgative and as a cytostatic. They are also grown as ornamental plants for their attractive foliage and flowers. Extracts of plants are used for genital warts and some skin cancers. |
| Examples of some endangered species in India |

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| Which of the following pairs of an animal and a plant represents endangered organisms in India?  2006 |
| Banyan and black duck |
| Bentinckia nicobarica and red Panda |
| Tamarind and rhesus monkey |
| Cinchona and leopard |
| b |
| Red Panda |
| An endangered species is a living organism in danger of disappearing from the face of the earth if it is not protected and its situation is not improved. Red panda (Ailurus fulgens) and Bentinckia nicobarica are endangered organisms of India. The red panda (Ailurus fulgens) faces problems with human encroachment into its habitat. Bentinckia nicobarica is a fast-growing, slender and elegant, pinnate palm from the Nicobar Islands in the Andaman Sea, North of Sumatra. |
| Examples of some endangered species in India |

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| According to IUCN Red List, what is the status of Red Panda (Ailurus fulgens)?  2005 |
| Critically endangered |
|  |
|  |
| Endangered species |
| b |
| Depleting fast |
| Vulnerable species have sufficient population at present but are depleting fast. e.g., Golden langur, leopard cat. Extinct species no longer exist, e.g., Dodo. Critically endangered species are threatened to a greater extent. |
| Examples of some endangered species in India |

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| Which group of vertebrates comprises the highest number of endangered species?  2003 |
| Mammals |
| Fishes |
| Reptiles |
| Birds |
| a |
| International union of conservation of nature and natural resources |
| IUCN Red List (2004) documents the extinction of 784 species (including 338 vertebrate species, 359 invertebrate species and 87 plant species) in the last 500 years. On worldwide basis, more than 15,500 species are facing the threat of extinction. At present, of the bird species, of mammal species, of amphibian species and of gymnosperm species are facing the threat of extinction in the world. Several endangered mammalian species are Panthera pandus (Leopard), Panthera leo persica (Lion), Presbytis pilaetus (capped langur), etc. |
| Biodiversity conservation |

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| Which endangered animal is the source of the world's finest, lightest, warmest and most expensive wool - the shahtoosh?  2003 |
| Nilgai |
| Cheetal |
| Kashmiri goat |
| Chiru |
| d |
| Chiru |
| Chiru or the Tibetan antelope (Pantholops hodgsoni) is medium-sized bovid which is about in height. Its coat is grey to reddish brown, with a white underside. The Chiru's wool, known as the shahtoosh, is warm, soft and fine. The wool can only be obtained by killing the animal. It is listed as endangered by the world conservation union and the United States Fish and Wildlife Service due to commercial poaching for its wool. |
| Examples of endangered species |

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| Wildlife is continuously decreasing. What is the main reason of this?  2002 |
| Predation |
| Cutting down of forest |
| Destruction of habitat |
| Hunting |
| c |
| Deforestation |
| Wildlife refers to all living organisms (terrestrial, aquatic and aerial) living in all possible natural habitats of their own, other than the cultivated plants and domesticated animals. Thus "wildlife" does not exist only in jungles and are hunted down but wild life includes even the migrating birds, turtles, coral reefs, microorganisms, insects, fishes, etc. Several hundred organisms are endangered or on the verge of extinction. The reasons are deforestation, pollution, killing, over exploitation, etc. The most important among them is deforestation or destruction of their natural habitat because it will affect the species (flora and fauna) of complete area and not only the few organisms. The natural habitat may be destroyed by man for his settlements, grazing grounds, agriculture, mining, industries, dam building, etc. As a consequence of this, the species must adapt to the changes, move elsewhere or may succumb to predation, starvation or disease, and eventually dies. |
| Biodiversity conservation |

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| Indri-indri lemur is found in  2000 |
| Madagascar |
| Mauritius |
| India |
| Sri Lanka. |
| a |
| Lemur |
| Indri-indri lemur is found in Madagascar. It is the largest of all surviving lemurs and is best known for its beautiful song which can carry for more than . Today, the Indri's number is small and dwindling due to habitat loss. |
| Examples of endangered species |

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| Occurrence of endemic species in South America and Australia is due to  2001 |
| these species has been extinct from other regions |
| continental separation |
| there is no terrestrial route to these places |
| retrogressive evolution. |
| b |
| Area separation |
| Occurrence of endemic species in South America and Australia is due to geographic isolation (continental separation). Animals occupy all diverse habitats. The distribution, continuous or discontinuous of a species or a group of organisms depends on many factors like evolutionary, climatic, physical or biological barriers, etc. |
| Species area relationship |

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| Which of the following is mainly responsible for the extinction of wildlife?  1999 |
| Pollution of air and water |
| Hunting of flesh |
| Destruction of habitats |
| All of these |
| c |
| Biodiversity reduction |
| The correct option is All the above; Wild animals are hunted for flesh, fur and also for ivory. Habitat destruction is the process by which a natural habitat is rendered unable to support the species present. In this process, the organisms that previously used the site are displaced or destroyed. Human activity leads to the pollution of air and water which in turn, kills many animals. So all of the above lead to a reduction in biodiversity. |
| Habitat loss and fragmentation |

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| What is the major cause of diminishing wildlife number?  1998 |
| Felling of trees |
| Paucity of drinking water |
| Cannibalism |
| Habitat destruction |
| d |
| Elimination or alteration in an area |
| The correct option is ; Habitat destruction is the elimination or alternation in an area or environment required for animal and plant species survival. It is a primary cause of the extinction of plants and animal species. Various human activities led to the destruction of habitat. Such as pollution, deforestation, overpopulation, industries work, floods, forest fires, etc. destroying habitat. |
| Habitat loss and fragmentation |

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| The breeding place of Flamingo (Hansawar) in India is most likely  1996 |
| Runn of Kutch |
| Ghana Vihar |
| Sambhar lake |
| Chilka lake. |
| d |
| Odisha |
| Flamingoes are protected in Chilka lake, Odisha. Other important birds protected are water fowls, ducks, cranes, golden plovers, sandpipers, etc. |
| Species area relationship |

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| The abundance of a species population, within its habitat, is called  1995 |
| relative density |
| regional density |
| absolute density |
| niche density. |
| d |
| Functional role of an organsims |
| The correct option is Niche density; Absolute density is the number of organisms per unit area. Regional density is the density of a population over a larger region. Relative density is the density of a population relative to another population. Within a community, each organism occupies a particular biological role or niche. Niche is a functional role of an organism in an ecosystem. It describes the relative position of a species in its ecosystem. Niche density is the number of particular species in a given habitat. |
| Patterns of biodiversity |

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| The most important human activity, leading to the extinction of wildife, is  1994 |
| pollution of air and water |
| hunting for valuable wildlife products |
| introduction of alien species |
| alteration and destruction of the natural habitats. |
| d |
| Habitat loss and fragmentation |
| The accelerated rates of species extinctions that the world is facing now are largely due to human activities. There are four major causes: (i) Habitat loss and fragmentation- This is the most important cause driving animals and plants to extinction. (ii) Overexploitation.  (iii) Alien species invasions. (iv) Co-extinctions. |
| Causes of biodiversity loss |

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| Which of the following is not a method of ex situ conservation?  2022 |
| In vitro fertilization |
| National parks |
| Micropropagation |
| Cryopreservation |
| b |
| Conservation of nature |
| National parks are the method of in-situ conservation (Conservation in natural habitat). |
| Ex situ conservation |

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| In-situ conservation refers to :  2022 |
| Protect and conserve the whole ecosystem |
| Conserve only high risk species |
| Conserve only endangered species |
| Conserve only extinct species |
| a |
| Onsite conservation |
| When we conserve and protect the whole ecosystem, its biodiversity at all levels is protected - we save the entire forest to save the tiger. This approach is called in situ (on site) conservation. However, when there are situations where an animal or plant is endangered or threatened (organisms facing a very high risk of extinction in the wild in the near future) and needs urgent measures to save it from extinction, ex situ (off site) conservation is the desirable approach. |
| Insitu conservation |

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| The Earth Summit held in Rio de Janeiro in 1992 was called  2019 |
| for immediate steps to discontinue use of CFCs that were damaging the ozone layer |
| to reduce emissions and global warming |
| for conservation of biodiversity and sustainable utilization of its benefits |
| to assess threat posed to native species by invasive weed species. |
| c |
| Conservation |
| 'The Earth Summit' held in Rio de Janeiro in 1992, called upon all nations to take appropriate measures for conservation of biodiversity and sustainable utilization of its benefits. |
| How do we conserve biodiversity |

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| Which one of the following is not a method of in situ conservation of biodiversity?  2019 |
| Sacred grove |
| Biosphere reserve |
| Wildlife sanctuary |
| Botanical garden |
| d |
| Onsite conversation |
| Botanical garden comes under ex-situ method of conservation of biodiversity. |
| Exsitu conservation |

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| Western Ghats have a large number of plant and animal species that are not found anywhere else. Which of the following terms will you use to notify such species?  Odisha NEET 2019 |
| Endemic |
| Threatened |
| Vulnerable |
| Keystone |
| a |
| Endemic plants |
| The Western Ghats covers a total area of 140000 sq km. It is a part of the states of Karnataka, Tamil Nadu, Kerala, Goa, Maharashtra and Gujarat. The largest numbers of endemic plant species are found here. According to scientists, this region is among the biodiversity hot spots of the country. |
| Biodiversity conservation |

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| All of the following are included in 'ex-situ conservation' except  2018 |
| wildlife safari parks |
| botanical gardens |
| sacred groves |
| seed banks. |
| b |
| Conservation at specific sites |
| Sacred groves come under in-situ conservation and represent the pristine forest patches around places of worship which are held in high esteem by tribal communities. Cutting of trees and branches is prohibited due to religious reasons. Wildlife safari parks, botanical gardens and seed banks come under ex-situ conservation. |
| Ex-situ conservation |

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| Which one of the following is related to ex-situ conservation of threatened animals and plants? 2017 |
| Biodiversity hotspots |
| Amazon rainforest |
| Himalayan region |
| Wildlife safari parks |
| d |
| Offsite collection |
| Ex-situ conservation is conservation of selected rare or threatened animals and plants in places outside their natural homes. It includes offsite collections like botanical gardens, zoological parks, wildlife safari parks, gene banks, etc. |
| Exsitu conservation |

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| The region of biosphere reserve which is legally protected and where no human activity is allowed is known as  2017 |
| buffer zone |
| transition zone |
| restoration zone |
| core zone. |
| d |
| Restoration and reserve management |
| Core zone or Natural zone area of a biosphere reserve is undisturbed and legally protected ecosystem. No human activity is allowed in this zone. Little human activity is allowed in the buffer zone whereas in transition zone, an active cooperation is present between reserve management and local people for activities like settlements, cropping, etc. Restoration region is degraded area which is selected for restoration to near natural form. |
| Other ways of insitu conservation |

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| How many hotspots of biodiversity in the world have been identified till date by Norman Myers?  NEET-II 2016 |
| 17 |
| 25 |
| 34 |
| 43 |
| c |
| Insitu conservation |
| Biodiversity hotspots are a method to identify those regions of the world where attention is needed to address biodiversity loss and to guide investments in conservation. The idea was first developed by Norman Myers in 1988 to identify tropical forests hotspots characterised both by exceptional levels of plant endemism and serious habitat loss which he then expanded to a more global scope. Currently 34 biodiversity hotspots have been identified most of which occur in tropical forests. |
| Hotspots |

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| Which of the following national parks is home to the famous musk deer or hangul?  NEET-II 2016 |
| Keibul Lamjao National Park, Manipur |
| Bandhavgarh National Park, Madhya Pradesh |
| Eaglenest Wildlife Sanctuary, Arunachal Pradesh |
| Eaglenest Wildlife Sanctuary, Arunachal Pradesh |
| d |
| Offsite conservation |
| Eaglenest or Eagle's Nest Wildlife Sanctuary is famous for its birds and tiger. Dachigam National Park, Jammu and Kashmir is famous for Hangul, Kashmir stag. Keibul Lamjao National Park, Manipur is famous for brow-antlered deer and flagship species of Bandhavgarh National Park, Madhya Pradesh is Bengal tiger. |
| Exsitu conservation |

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| The species confined to a particular region and not found elsewhere is termed as  2015 |
| Endemic |
| Rare |
| Keystone |
| alien. |
| a |
| Extinction |
| The correct option is Endemic species are those species which are found in one particular place on the planet. They are not found anywhere else. Endemic species run a higher risk of extinction because of their geographic isolation. For examples kangaroos are endemic to Australia. |
| Over exploitation |

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| In which of the following, both pairs have correct combination?  2015 Cancelled |
| In-situ conservation : Seed Bank Ex-situ conservation : National Park |
| In-situ conservation: Tissue culture Ex-situ conservation : Sacred groves |
| In-situ conservation: National Park Ex-situ conservation : Botanical Garden |
| In-situ conservation: Cryopreservation Ex-situ conservation: Wildlife Sanctuary |
| c |
| Offsite and onsite |
| In-situ (on site) conservation is conservation and protection of the whole ecosystem and its biodiversity at all levels, in order to protect the threatened species. Two in-situ methods are being used to save biodiversity viz., hotspots and protected areas. Protected areas include national parks, sanctuaries, biosphere reserves and sacred groves. Ex-situ (off site) conservation is conservation of selected rare plants/animals in places outside their natural homes. Ex-situ conservation includes offsite collections, seed banks, gene banks, in vitro fertilization, cryopreservation techniques and tissue culture. |
| Insitu conversation |

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| Cryopreservation of gametes of threatened species in viable and fertile condition can be referred to as  2015 Cancelled |
| in situ conservation by sacred groves |
| in situ cryo-conservation of biodiversity |
| in situ conservation of biodiversity |
| advanced ex situ conservation of biodiversity. |
| d |
| Offsite |
| Cryopreservation is an advanced method of exsitu conservation. It involves preservation at in liquid nitrogen. It can maintain tissue culture, embryos, animal cells/ tissues, spermatozoa indefinitely. The cryopreserved material is revived through special technique, when required. |
| Advantages of exsitu conservation |

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| An example of ex-situ conservation is  2014 |
| national park |
| seed bank |
| wildlife sanctuary |
| sacred grove. |
| b |
| Offsite conservation |
| Ex-situ (off site) conservation is conservation of selected rare plants/animals in places outside their natural homes. Ex-situ conservation includes offsite collections, seed banks, gene banks, in vitro fertilization, cryopreservation techniques and tissue culture. |
| Ex situ conservation |

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| Which one of the following is not used for ex-situ plant conservation?  2013 |
| Shifting cultivation |
| Botanical gardens |
| Field gene banks |
| Seed banks |
| a |
| Offsite conservation |
| Ex-situ conservation is conservation of selected rare plants/animals in places outside their natural homes. It includes botanical gardens or zoological parks, seed banks, cryopreservation, field gene banks and sacred plants. Many wild and domesticated species are well managed and collected in botanical gardens, zoological parks, wildlife safari parks, arboreta, etc. Most of these have capture breeding programmes to restore the decreasing number of animals and helping the survival of existing individuals of the species. Gene banks are institutes that maintain stocks of viable seeds (seed banks), live plants (orchards), tissue culture and frozen germplasm with the whole range of genetic viability. |
| Exsitu conservation |

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| The largest tiger reserve in India is  Karnataka NEET 2013 |
| Valmiki |
| Nagarjunasagar-Srisailam |
| Periyar |
| Nagarhole. |
| b |
| Andrapradesh |
| Nagarjunasagar - Srisailam Tiger Reserve is the largest tiger reserve in India. It is present in Andhra Pradesh with a total area of . The core area of this reserve is . |
| Insitu conservation |

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| Which one of the following areas in India, is a hotspot of biodiversity?  2012 |
| Eastern Ghats |
| Gangetic Plain |
| Sunderbans |
| Western Ghat |
| d |
| Western parts of India |
| Hotspots are areas with high density of biodiversity or megadiversity which are also the most threatened ones. Ecologically hotspots are determined by four factors - number of species/species diversity, degree of endemism, degree of threat to habitat due to its degradation and fragmentation, and degree of exploitation. India has three hotspots : Indo-Burma, Himalayas and Western Ghats - Sri Lanka. |
| Hotspots |

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| Select the correct statement about biodiversity.  Mains 2012 |
| The desert areas of Rajasthan and Gujarat have a very high level of desert animal species as well as numerous rare animals. |
| Large scale planting of Bt cotton has no adverse effect on biodiversity. |
| Western ghats have a very high degree of species richness and endemism. |
| Conservation of biodiversity is just a fad pursued by the developed countries. |
| c |
| Indian western ghats |
| The correct option is Western Ghats have a very high degree of species richness and endemism. The Western Ghats is a hotspot for biodiversity. It is found along India's western coast in Maharashtra, Karnataka, Tamil Nadu, and Kerala. Endemic species are those that can only be found in one location and are not found anywhere else. Many of the species are unknown, and many of them pose a threat to species found in the Western Ghats. |
| Biodiversity conservation |

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| Sacred groves are specially useful in Mains 2012 |
| generating environmental awareness |
| preventing soil erosion |
| year-round flow of water in rivers |
| conserving rare and threatened species. |
| d |
| Onsite conservation |
| Sacred grove is an example of in situ conservation of forests and wildlife especially rare and threatened species. These forest patches are found around places of worship which are held in high esteem by tribal communities. They are the most undisturbed forest patches which are often surrounded by highly degraded landscapes. Not a single branch is allowed to be cut from these forests. As a result many endemic species which are rare or have become extinct elsewhere can be seen to flourish here. Such sacred groves are found in Khasi and Jaintia hills of Meghalaya, Aravalli hills of Rajasthan, Western ghat regions of Karnataka, Maharashtra, Sarguja, Chanda and Bastar areas of Madhya Pradesh. |
| Insitu conservation; sacred groves |

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| Tiger is not a resident in which one of the following national parks?  2009 |
| Sunderbans |
| Jim Corbett |
| Gir |
| Ranthambhor |
| b |
| Gujarath |
| Gir National Park is situated in district Junagarh of Gujarat. This national park is famous for Asiatic lion. Beside lion, panther, striped hyaena, sambhar, nilgai, cheetal are also conserved. |
| Insitu conservation |

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| Which one of the following is not observed in biodiversity hotspots?  2008 |
| Lesser inter-specific competition |
| Species richness |
| Endemism |
| Accelerated species loss |
| a |
| Interactions between the species |
| Lesser interspecific competition is not observed in biodiversity Hotspots. A biogeographic region where the significant levels of biodiversity are threatened by the human habitation is known as biodiversity Hotspots. The competition in which the individuals of different species compete for the resources in the same ecosystem is known as interspecific competition. It is a type of mutualism or symbiosis which is completed for resources such as food for living space in an ecosystem. It interacts with the biotic and abiotic factors which affect the community structure and can occur when two individuals species which are separate species share a limit of resources in the same area which is known as limited or lesser intraspecific competition. This competition has the potential to alter the communities and populations in the evolution of interacting species in an individual organism level in which the competition can occur interference or exploitative competition. |
| Hotspots |

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| World Summit on Sustainable Development (2002) was held in  2008 |
| Argentina |
| South Africa |
| Brazil |
| Sweden. |
| b |
| Johamsesberg |
| Conservation of biodiversity is a collective responsibility of all nations. The historic Convention on Biological Diversity ('The Earth Summit') held in Rio de Janeiro in 1992, called upon all nations to take appropriate measures for conservation of biodiversity and sustainable utilisation of its benefits. In a followup, the World Summit on Sustainable Development held in 2002 in Johannesburg, South Africa, 190 countries pledged their commitment to achieve by 2010 , a significant reduction in the current rate of biodiversity loss at global, regional and local levels |
| Biodiversity conservation |

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| Identify the odd combination of the habitat and the particular animal concerned. |
| Bengal Tiger- Sunderbans |
| Elephant-Periyar |
| Wild Ass- Rann of Kutch |
| Snow Leopard National Park- Dachigam |
| d |
| Srinagar, India |
| Dachigam National Park is located only 22 kilometers from Srinagar, the capital city of the northern state of Jammu and Kashmir. Dachigam is considered home to some of the unique Himalayan range of flora and fauna. Primary amongst them is the hangul or Kashmiri stag, the most endangered species of red deer in the world. It was finally upgraded and declared a National Park in the year 1981. |
| Insitu conservation |

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| Which of the following is considered a hotspot of biodiversity in India?  2006 |
| Aravalli hills |
| Western ghats |
| Indo-gangetic plain |
| Eastern ghats |
| b |
| Tamilandu and Kerala mountains |
| The Western Ghats occur along the western coast of India for a distance of about 1600 km in Maharashtra, Karnataka, Tamil Nadu and Kerala extending over to Sri Lanka. At low elevation up to 500 meters above sea level, the area contains tropical evergreen rain forests, while semi-evergreen forests occur at a height of 500-1000 meters. Major centres of biodiversity in this region are Agasthyamalai hills, Silent valley and Amambalam reserve. There is high degree of endemism as well as richness of species of flowering plants, amphibians, reptiles, some mammals and butterflies. It is the most biodiversity rich zone in India. |
| Insitu conservation |

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| Which one of the following is not included under in situ conservation?  2006 |
| National Park |
| Botanical garden |
| Sanctuary |
| Biosphere reserve |
| c |
| Onsite conservation |
| In-situ conservation means "on-site conservation". In-situ conservation is the protection and management of important components of biological diversity through a network of protected areas e.g., National Park, sanctuary, biosphere reserve, etc. Botanical gardens come under ex-situ conservation. |
| Insitu conservation |

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| Which one of the following is the correctly matched pair of an endangered animal and a national park?  2006 |
| Great Indian bustard: Keoladeo National Park |
| Lion: Corbett National Park |
| Rhinoceros: Kaziranga National Park |
| Wild ass : Dudhwa National Park |
| c |
| Assam |
| Kaziranga National Park of Assam is known for the conservation of rhinoceros. |
| Insitu conservation |

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| Biodiversity Act of India was passed by the Parliament in the year  2005 |
| 1992 |
| 2000 |
| 1996 |
| 2002 |
| d |
| The biodiversity act of India |
| Biodiversity Act of India provides for conservation of biological diversity, substainable use of its components and fair and equitable sharing of the benefits arising out of the use of biological resources, knowledge and for matters connected therewith or incidental thereto. The biodiversity act of India was passed in 2002. |
| How do we conserve biodiversity |

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| In your opinion, which is the most effective way to conserve the plant diversity of an area? |
| By tissue culture method |
| By creating biosphere reserve |
| By creating botanical garden |
| By developing seed bank |
| b |
| Maintaining ecosystem |
| Biosphere reserves are multipurpose protected areas of different representative ecosystems which are meant for conservation of biodiversity or wildlife, traditional life style of tribals and their domesticated animals and also plant resources. Each biosphere reserve has a core zone (where no human activity is allowed), a buffer zone (with limited human activity) and manipulation zone (where human activity is allowed without degradation of ecology. Thus, the biosphere reserves protect not just wild varieties but also domesticated varieties of plants of an area. |
| Insitu conservation |

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| Viable material of endangered species can be preserved by  2000 |
| gene bank |
| gene library |
| herbarium |
| gene pool. |
| a |
| Gene bank-NCBI |
| Viable material of endangered species can be preserved by gene bank. Gene bank is an institute that maintains stocks of viable seeds (seed banks), live growing plants (orchards), tissue culture and frozen germplasm with the whole range of genetic variability. |
| Advantages of exsitu conservation |

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| MAB stands for  1997 |
| mammals and biosphere |
| mammals and biology programme |
| man, and biology programme |
| man, and biosphere programme. |
| d |
| Programme by UNESCO |
| Man and biosphere programme is an international biological programme of UNESCO (United Nations Educational Scientific and Cultural Organisation) which was started in 1971 but was introduced in India in 1986. MAB has studied human environment, impact of human interference and pollution on biotic and abiotic environment and conservation strategies for the present as well as future. |
| How do we conserve biodiversity |

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| Identify the correct match between tiger reserve and its state.  1995 |
| Manas – Assam |
| Corbett - Madhya Pradesh |
| Bandipur - Tamil Nadu |
| Palamu – Odisha |
| a |
| Assam |
| Manas biosphere reserve is located in Assam. Corbett National Park is located in district Nainital of Uttaranchal. Bandipur National Park is located in district Mysore of Karnataka. Palamu is located in Chhotanagpur, Jharkhand. |
| Exsitu conservation |

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| Which of the following is the matching pair of a sanctuary and its main protected wild animal  1995 |
| Kaziranga-Musk deer |
| Gir-Lion |
| Sunderban-Rhino |
| All of these |
| b |
| Panthera leo |
| Lion (Panthera leo persica) is an important protected animal in wildlife of India. It is an endangered animal. The conservation project for protection of lion was started in the year 1972 in 'Gir National Park' in Junagadh in Gujarat. Single horned rhino (Rhinoceros unicornis) is an important protected animal in wildlife of India. The conservation efforts for this animal started in 1987 as 'Project Rhino'. It is protected in 'Kaziranga National Park', Sibsagar, Jorhat, Assam. Tiger is protected in 'Sunderbans Tiger Reserve' in Bengal, as part of 'Project Tiger'. Sambar deer is widely distributed and is protected in Pench, Kanha, Bandipur etc. |
| Ex-situ conservation |