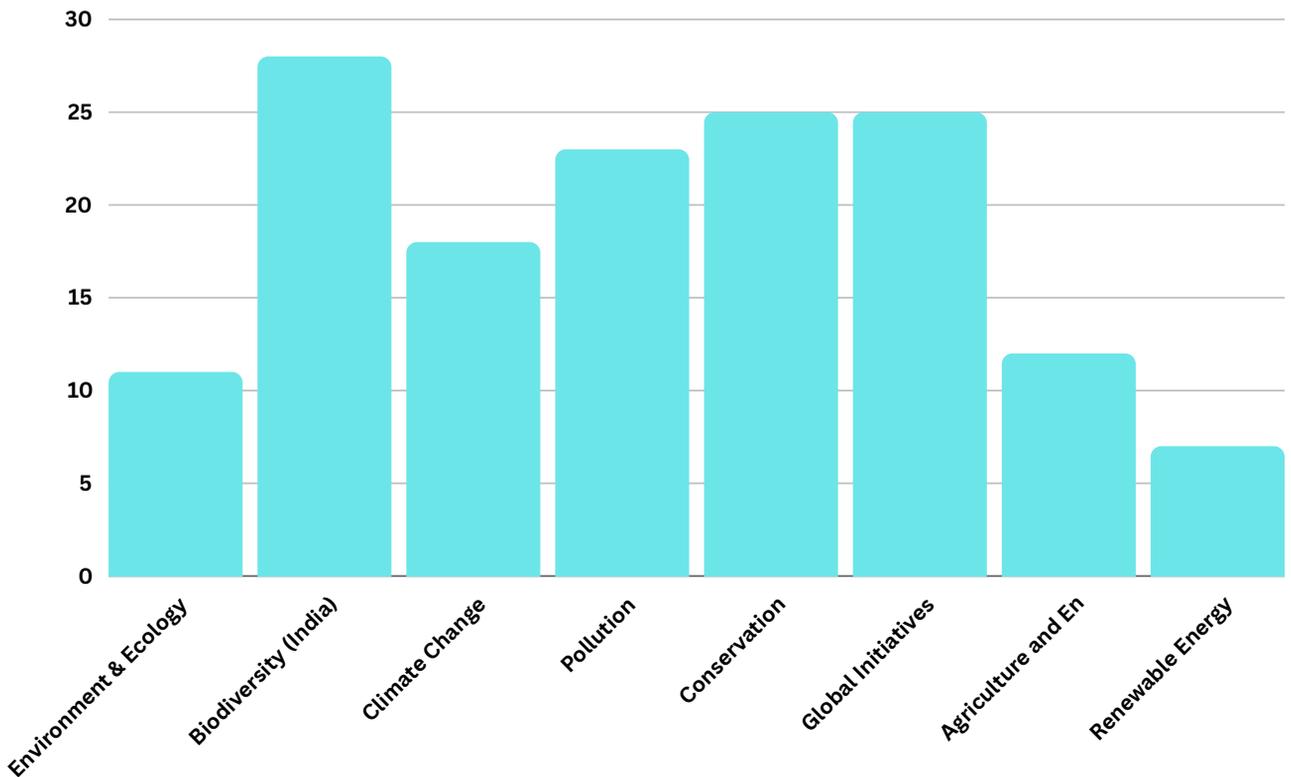


Geography Prelims strategies and approach



Environment / Ecology & Climate Change

UPSC Question Trend 2015 - 23



Topic : Environment Ecology

2015 - 2023 Prelims PYQs

1] Which of the following organisms perform waggle dance for others of their kin to indicate the direction and the distance to a source of their food? [2023]

- a) Butterflies
- b) Dragonflies
- c) Honeybees
- d) Wasps

2] Which of the following makes a tool with a stick to scrape insects from a hole in a tree or a log of wood? [2023]

- a) Fishing cat
- b) Orangutan
- c) Otter
- d) Sloth bear

3] Consider the following statements: [2023]

1. Some mushrooms have medicinal properties.
2. Some mushrooms have psycho-active properties.
3. Some mushrooms have insecticidal properties.
4. Some mushrooms have bioluminescent properties.

How many of the above statements are correct?

- a) Only one
- b) Only two
- c) Only three
- d) All four

3] “If rainforests and tropical’ forests are the lungs of the Earth, then surely. ‘wetlands function as its kidneys.” Which one of the following functions of wetlands best reflects the above statement? [2022]

- a) The water cycle in wetlands involves surface runoff, subsoil percolation and evaporation.
- b) Algae form the nutrient base upon which fish, crustaceans, molluscs, birds, reptiles and mammals thrive.
- c) Wetlands play a vital role in maintaining sedimentation balance and soil stabilization..
- d) Aquatic plants absorb heavy metals and excess nutrients.

4] Consider the following kinds of organisms: [2021]

- 1) Copepods
- 2) Cyanobacteria
- 3) Diatoms
- 4) Foraminifera

Which of the above are primary producers in the food chains of oceans?

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

5] In case of which one of the following biogeochemical cycles the weathering of rocks is the main source of release of nutrient to enter the cycle? [2021]

- a) Carbon cycle
- b) Nitrogen cycle

- c) Phosphorus cycle
- d) Sulphur cycle

6] Which of the following are detritivores? [2021]

- 1) Earthworms
- 2) Jellyfish
- 3) Millipedes
- 4) Seahorses
- 5) Woodlice

Select the correct answer using the code given below.

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

7] Which of the following have species that can establish symbiotic relationship with other organisms? [2021]

- 1) Cnidarians
- 2) Fungi
- 3) Protozoa

Select the correct answer using the code given below.

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

8] Consider the following statements: [2019]

- 1. Some species of turtles are herbivores.
- 2. Some species of fish are herbivores.
- 3. Some species of marine mammals are herbivores.
- 4. Some species of snakes are viviparous.

Which of the statements given above is/are correct?

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

9] Which of the following leaf modifications occur(s) in the desert areas to inhibit water loss? [2018]

- 1. Hard and waxy leaves
- 2. Tiny leaves
- 3. Thorns instead of leaves

Select the correct answer using the code given below:

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

10] Due to some reasons, if there is a huge fall in the population of species of butterflies, what could be its likely consequence/consequences? [2017]

1. Pollination of some plants could be adversely affected.
2. There could be a drastic increase in the fungal infections of some cultivated plants.
3. It could lead to a fall in the population of some species of wasps, spiders and birds.

Select the correct answer using the code given below:

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

11] Which one of the following is the best description of the term 'ecosystem'? [2015]

- a) A community of organisms interacting with one another
- b) That part of the Earth which is inhabited by living organisms
- c) A community of organisms together with the environment in which they live.
- d) The flora and fauna of a geographical area.

Topic : Indian Biodiversity

2015 - 2023 Prelims PYQs

1] Consider the following trees: [2023]

1. Jackfruit (*Artocarpus heterophyllus*)
2. Mahua (*Madhuca indica*)
3. Teak (*Tectona grandis*)

How many of the above are deciduous trees?

- a) Only one
- b) Only two
- c) All three
- d) None

2] Consider the following statements: [2023]

Statement-I Marsupials are not naturally found in India.

Statement-II Marsupials can thrive only in Montane grasslands with no predators.

Which of the following is correct in respect of the above statements?

- a) Both Statement-I and Statement-II are correct and Statement-II is the correct explanation for Statement-I
- b) Both Statement-I and Statement-II are correct and Statement-II is not the correct explanation for Statement-I

- c) Statement-I is correct but Statement-II is incorrect
- d) Statement-I is incorrect but Statement-II is correct

3] Consider the following Fauna: [2023]

1. Lion-tailed Macaque
2. Malabar Civet
3. Sambar Deer

How many of the above are generally nocturnal or most active after sunset?

- a) Only one
- b) Only two
- c) All three
- d) None

4] Consider the following statements regarding the Indian squirrels: [2023]

1. They build nests by making burrows in the ground.
2. They store their food materials like nuts and seeds in the ground.
3. They are omnivorous.

How many of the above statements are correct?

- a) Only one
- b) Only two
- c) All three
- d) None

5] Certain species of which one of the following organisms are well known as cultivators of fungi? [2022]

- a) Ant
- b) Cockroach
- c) Crab
- d) Spider

6] With reference to “Gucchi” sometimes mentioned in the news, consider the following statements: [2022]

1. It is a fungus.
2. It grows in some Himalayan forest areas.
3. It is commercially cultivated in the Himalayan foothills of north-eastern India.

Which of the statements given above is/are correct?

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

7] Which of the following is not a bird? [2022]

- a) Golden Mahseer
- b) Indian Nightjar
- c) Spoonbill
- d) White Ibis

8] “Biorock technology” is talked about in which one of the following situations? [2022]

- a) Restoration of damaged coral reefs
- b) Development of building materials using plant residues

- c) Identification of areas for exploration/extraction of shale gas
- d) Providing salt licks for wild animals in forests/protected areas

9] Consider the following animals: [2021]

- 1) Hedgehog
- 2) Marmot
- 3) Pangolin

To reduce the chance of being captured by predators which of the above organisms rolls up/roll up and protects/protect its/their vulnerable parts?

a) 1 and 2

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

10] Which one of the following is used in preparing a natural mosquito repellent? [2021]

- a) Congress grass
- b) Elephant grass
- c) Lemon grass
- d) Nut grass

11] Which one of the following is a filter feeder? [2021]

- a) Catfish
- b) Octopus
- c) Oyster
- d) Pelican

12] With reference to Indian elephants, consider the following statements: [2020]

- 1. The leader of an elephant group is a female.
- 2. The maximum gestation period can be 22 months.
- 3. An elephant can normally go on calving till the age of 40 years only.
- 4. Among the States in India, the highest elephant population is in Kerala.

Which of the statements given above is/are correct?

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

13] With reference to India's biodiversity, Ceylon frogmouth, Coppersmith barbet, Gray-chinned minivet and White-throated redstart are: [2020]

- a) Birds
- b) Primates
- c) Reptiles
- d) Amphibians

14] Which of the following are the most likely places to find the musk deer in its natural habitat? [2020]

- 1. Askot Wildlife Sanctuary
- 2. Gangotri National Park
- 3. Kishanpur Wildlife Sanctuary
- 4. Manas National Park

Select the correct answer using the code given below:

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

15] Which one of the following groups of plants was domesticated in the 'New World' and introduced into the 'Old World'? [2019]

- a) Tobacco, cocoa and rubber
- b) Tobacco, cotton and rubber
- c) Cotton, coffee and sugarcane
- d) Rubber, coffee and wheat

16] Consider the following statements: [2019]

1. Asiatic lion is naturally found in India only.
2. Double-humped camel is naturally found in India only.
3. One-horned rhinoceros is naturally found in India only.

Which of the statements given above is/are correct?

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

17] Consider the following pairs: [2019]

Wildlife: Naturally found in

1. Blue-finned Mahseer: Cauvery River
2. Irrawaddy Dolphin: Chambal River
3. Rusty-spotted Cat: Eastern Ghats

Which of the pairs given correctly matched?

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

18] Recently, there was a growing awareness in our country about the importance of Himalayan nettle (*Girardinia diversifolia*) because it is found to be a sustainable source of: [2019]

- a) Anti-malarial drug
- b) Biodiesel
- c) Pulp for paper industry
- d) Textile fibre

19] Consider the following statements: [2018]

1. Most of the world's coral reefs are in tropical waters.
2. More than one-third of the world's coral reefs are located in the territories of Australia, Indonesia and Philippines.
3. Coral reefs host far more number of animal phyls than those hosted by tropical rainforests.

Which of the statements given above is/are correct?

- a) 1 and 2 only

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

20] Why is a plant called *Prosopis juliflora* often mentioned in news? [2018]

- a) Its extract is widely used in cosmetics.
- b) It tends to reduce the widely biodiversity in the area in which it grows.
- c) Its extract is used in the synthesis of pesticides.
- d) None of the above

21] If you want to see gharials in their natural habitat, which one of the following is the best place to visit? [2017]

- a) Bhitarkanika Mangroves
- b) Chambal River
- c) Pulicat Lake
- d) Deepor Beel

22] What is/are unique about 'Kharai Camel', a breed found in India? [2016]

- 1. It is capable of swimming up to three kilometres in seawater.
- 2. It survives by grazing on mangroves.
- 3. It lives in the wild and cannot be domesticated.

Select the correct answer using the code given below.

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

23] Recently, our scientists have discovered a new and distinct species of banana plant which attains a height of about 11 metres and has orange-coloured fruit pulp. In which part of India has it been discovered? [2016]

- a) Andaman Islands
- b) Anaimalai Forests
- c) Maikala Hills
- d) Tropical rain forests of northeast

24] With reference to 'Red Sanders', sometimes seen in the news, consider the following statements: [2016]

- 1. It is a tree species found in a part of South India.
- 2. It is one of the most important trees in the tropical rain forest areas of South India.

Which of the statements given above is/are correct?

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

25] In which of the following regions of India are you most likely to come across the 'Great Indian Hornbill' in its natural habitat? [2016]

- a) Sand deserts of northwest India
- b) Higher Himalayas of Jammu and Kashmir

- c) Salt marshes of western Gujarat
- d) Western Ghats

26] With reference to 'dugong', a mammal found in India, which of the following statements is/are correct? [2015]

1. It is a herbivorous marine animal.
2. It is found along the entire coast of India
3. It is given legal protection under Schedule 1 of the Wildlife (Protection) Act, 1972.

Select the correct answer using the code given below.

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

27] Which one of the following is the national aquatic animal of India? [2015]

- a) Saltwater crocodile
- b) Olive ridley turtle
- c) Gangetic dolphin
- d) Gharial

28] Which one of the following regions of India has a combination of mangrove forest, evergreen forest and deciduous forest? [2015]

- a) North Coastal Andhra Pradesh
- b) South-West Bengal
- c) Southern Saurashtra
- d) Andaman and Nicobar Islands

Topic : Climate Change

2015 - 2023 Prelims PYQs

1] Consider the following: [2023]

1. Aerosols
2. Foam agents
3. Fire retardants
4. Lubricants

In the making of how many of the above are hydrofluorocarbons used?

- a) Only one
- b) Only two
- c) All three
- d) All four

2] Consider the following activities: [2023]

1. Spreading finely ground basalt rock on farmlands extensively
2. Increasing the alkalinity of oceans by adding lime
3. Capturing carbon dioxide released by various industries and pumping it into abandoned

subterranean mines in
the form of carbonated waters

How many of the above activities are often considered and discussed for carbon capture and sequestration?

- a) Only one
- b) Only two
- c) All three
- d) None

3] Among the following crops, which one is the most important anthropogenic source of both methane and nitrous oxide? [2022]

- a) Cotton
- b) Rice
- c) Sugarcane
- d) Wheat

4] What is blue carbon? [2021]

- a) Carbon captured by oceans and coastal ecosystems
- b) Carbon sequestered in forest biomass and agricultural soils
- c) Carbon contained in petroleum and natural gas
- d) Carbon present in atmosphere

5] In rural road construction, the use of which of the following is preferred for ensuring environmental sustainability or to reduce carbon footprint? [2020]

- 1. Copper slag
- 2. Cold mix asphalt technology
- 3. Geotextiles
- 4. Hot mix asphalt technology
- 5. Portland cement

Select the correct answer using the code given below:

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

6] Which of the following statements best describes the term 'Social Cost of Carbon'? [2020]

- a) Long-term damage done by a tonne of CO₂ emissions in a given year.
- b) Requirement of fossil fuels for a country to provide goods and services to its citizens, based on the burning of those fuels.
- c) Efforts put in by a climate refugee to adapt to live in a new place.
- d) Contribution of an individual person to the carbon footprint on the planet Earth.

7] Which of the following statements are correct about the deposits of 'methane hydrate'? [2019]

- 1. Global warming might trigger the release of methane gas from these deposits.
- 2. Large deposits of 'methane hydrate' are found in Arctic Tundra and under the seafloor.

3. Methane in atmosphere oxidises to carbon dioxide after a decade or two.

Select the correct answer using the code given below.

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

8] Consider the following: [2019]

- 1. Carbon monoxide
- 2. Methane
- 3. Ozone
- 4. Sulphur dioxide

Which of the above are released into atmosphere due to the burning of crop/biomass residue?

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

9] Consider the following statements: [2019]

- 1. Agricultural soils release nitrogen oxides into the environment.
- 2. Cattle release ammonia into the environment.
- 3. Poultry industry releases reactive nitrogen compounds into the environment.

Which of the statements given above is/are correct?

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

10] In the context of proposals to the use of hydrogen-enriched CNG (H-CNG) as fuel for buses in public transport, consider the following statements: [2019]

- 1. The main advantage of the use of H-CNG is the elimination of carbon monoxide emissions.
- 2. H-CNG as fuel reduces carbon dioxide and hydrocarbon emissions.
- 3. Hydrogen up to one-fifth by volume can be blended with CNG as fuel for buses.
- 4. H-CNG makes the fuel less expensive than CNG.

Which of the statements given above is/are correct?

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

11] Which of the following statements best describes 'carbon fertilization'? [2018]

- a) Increased Plant growth due to increased concentration of carbon dioxide in the atmosphere
- b) Increased temperature of the earth due to increased concentration of carbon dioxide in

the atmosphere

- c) Increased acidity of oceans as a result of increased concentration of carbon dioxide in the atmosphere
- d) Adaptation of living beings on Earth to the climate change brought about by the increased concentration of carbon dioxide in the atmosphere

12] The term “sixth mass extinction/sixth extinction” is often mentioned in the news in the context of discussion of: [2018]

- a) Widespread monoculture practices in agriculture and large scale commercial farming with indiscriminate use of chemicals in many part of the world that may result in the loss of good native ecosystems.
- b) Fears of possible collision of a meteorite with the Earth in the near future in the manner it happened 65 million years ago that caused the mass extinction of many species including those of dinosaurs.
- c) Large scale cultivation of genetically modified crops in many part of the world and promoting their cultivation in other parts of the world which may cause the disappearance of good native crop plants and the loss of food biodiversity.
- d) Mankind’s overexploitation/misuse of natural resources, fragmentation/loss of natural habitats, destruction of ecosystems, pollutions and world climate change.

13] In the context of mitigating the impending global warming due to anthropogenic emissions of carbon dioxide, which of the following can be the potential sites for carbon sequestration? [2017]

- 1. Abandoned and uneconomic coal seams
- 2. Depleted oil and gas reservoirs
- 3. Subterranean deep saline formations

Select the correct answer using the code given below:

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

14] With reference to an organization known as ‘Birdlife International’ which of the following statements is/are correct? [2015]

- 1. It is a Global Partnership of Conservation Organizations.
- 2. The concept of ‘biodiversity hotspots’ originated from this organization.
- 3. It identifies the sites known/referred to as ‘Important Bird and Biodiversity Areas’.

Select the correct answer using the code given below.

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

15] With reference to the International Union for Conservation of Nature and Natural Resources (IUCN) and the Convention on International Trade in Endangered Species of Wild

Fauna and Flora (CITES), which of the following statements is/are correct? [2015]

1. IUCN is an organ of the United Nations and CITES is an international agreement between governments
2. IUCN runs thousands of field projects around the world to better manage natural environments.
3. CITES is legally binding on the States that have joined it, but this Convention does not take the place of national laws.

Select the correct answer using the code given below.

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

16] With reference to a conservation organization called 'Wetlands International', which of the following statements is/are correct? [2014]

1. It is an intergovernmental organization formed by the countries which are signatories to Ramsar Convention.
2. It works at the field level to develop and mobilize knowledge, and use the practical experience to advocate for better policies.

Select the correct answer using the code given below.

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

17] If a wetland of international importance is brought under the 'Montreux Record', what does it imply? [2014]

- a) Changes in ecological character have occurred, are occurring or are likely to occur in the wetland as a result of human interference.
- b) The country in which the wetland is located should enact a law to prohibit any human activity within five kilometres from the edge of the wetland.
- c) The survival of the wetland depends on the cultural practices and traditions of certain communities living in its vicinity and therefore the cultural diversity therein should not be destroyed.
- d) It is given the status of 'World Heritage Site'.

18] The scientific view is that the increase in global temperature should not exceed 20C above pre-industrial level. If the global temperature increases beyond 30C above the pre-industrial level, what can be its possible impact/impacts on the world? [2014]

1. Terrestrial biosphere tends toward a net carbon source.
2. Widespread coral mortality will occur.
3. All the global wetlands will permanently disappear.
4. Cultivation of cereals will not be possible anywhere in the world.

Select the correct answer using the code given below:

- a) 1 only

- b) 1 and 2 only
- c) 2, 3 and 4 only
- d) 1, 2, 3 and 4

Topic : Pollution

2015 - 2023 Prelims PYQs

1] With reference to the role of biofilters in Recirculating Aquaculture System, consider the following statements: [2023]

1. Biofilters provide waste treatment by removing uneaten fish feed.
2. Biofilters convert ammonia present in fish waste to nitrate.
3. Biofilters increase phosphorus as nutrient for fish in water.

How many of the statements given above are correct?

- a) Only one
- b) Only two
- c) All three
- d) None

2] Consider the following statements regarding mercury pollution: [2023]

1. Gold mining activity is a source of mercury pollution in the world.
2. Coal-based thermal power plants cause mercury pollution.
3. There is no known safe level of exposure to mercury.

How many of the above statements are correct?

- a) Only one
- b) Only two
- c) All three
- d) None

3] Consider the following: [2022]

1. Carbon monoxide
2. Nitrogen oxide
3. Ozone
4. Sulphur dioxide

Excess of which of the above in the environment is/are the cause(s) of acid rain?

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

4] In the context of WHO Air Quality Guidelines, consider the following statements: [2022]

1. The 24-hour mean of PM 2.5 should not exceed 15 $\mu\text{g}/\text{m}^3$ and annual mean of PM2.5 should not exceed 5 $\mu\text{g}/\text{m}^3$.
2. In a year, the highest levels of ozone pollution occur during the periods of inclement weather.

3. PM 10 can penetrate the lung barrier and enter the bloodstream.
4. Excessive ozone in the air can trigger asthma.

Which of the statements given above are correct?

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

5] Consider the following statements: [2022]

1. Other than those made by humans, nanoparticles do not exist in nature.
2. Nanoparticles of some metallic oxides are used in the manufacture of some cosmetics.
3. Nanoparticles of some commercial products which enter the environment are unsafe for Humans.

Which of the statements given above is/are correct?

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

6] Magnetite particles suspected to cause neurodegenerative problems, are generated as environmental pollutants from which of the following? [2021]

- 1) Brakes of motor vehicles
- 2) Engines of motor vehicles
- 3) Microwave stoves within homes
- 4) Power plants
- 5) Telephone lines

Select the correct answer using the code given below.

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

7] 'R2 Code of Practices' constitutes a tool available for promoting the adoption of: [2021]

- a) Environmentally responsible practices in electronics recycling industry
- b) Ecological management of 'Wetlands of International Importance' under the Ramsar
- c) Sustainable practices in the cultivation of agricultural crops in degrade lands
- d) 'Environmental Impact Assessment' in the exploitation of natural resources

8] Why is there a concern about copper smelting plants? [2021]

- 1) They may release lethal quantities of carbon monoxide into environment.
- 2) The copper slag can cause the leaching of some heavy metals into environment.
- 3) They may release sulphur dioxide as a pollutant.

Select the correct answer using the code given below.

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

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

9] With reference to furnace oil, consider the following statements: [2021]

- 1) It is a product of oil refineries.
- 2) Some industries use it to generate power
- 3) Its use causes sulphur emissions into environment.

Which of the statements given above are correct?

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

10] Which of the following are the reasons/factors for exposure to benzene pollution? [2020]

- 1. Automobile exhaust
- 2. Tobacco smoke
- 3. Wood burning
- 4. Using varnished wooden furniture
- 5. Using products made of polyurethane

Select the correct answer using the code given below:

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

11] Consider the following statements: [2020]

- 1. Coal ash contains arsenic, lead and mercury.
- 2. Coal-fired power plants release sulphur dioxide and oxides of nitrogen into the environment.
- 3. High ash content is observed in Indian coal.

Which of the statements given above is/are correct?

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

12] Steel slag can be the material for which of the following? [2020]

- 1. Construction of base road
- 2. Improvement of agricultural soil
- 3. Production of cement

Select the correct answer using the code given below:

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

13] Why is there a great concern about the 'microbeads' that are released into environment?

[2019]

- a) They are considered harmful to marine ecosystems.
- b) They are considered to cause skin cancer in children.
- c) They are small enough to be absorbed by crop plants in irrigated fields.
- d) They are often found to be used as food adulterants.

14] In India, the use of carbofuran, methyl parathion, phorate and triazophos is viewed with apprehension. These chemicals are used as: [2019]

- a) Pesticides in agriculture
- b) Preservatives in processed foods
- c) Fruit-ripening agents
- d) Moisturising agents in cosmetics

15] Consider the following statements: [2019]

The Environment Protection Act, 1986 empowers the Government of India to

1. State the requirement of public participation in the process of environmental protection, and the procedure and manner in which it is sought
2. Lay down the standards for emission or discharge of environmental pollutants from various sources

Which of the statements given above is/are correct?

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

16] As per the Solid Waste Management Rules, 2016 in India, which one of the following statements is correct? [2019]

- a) Waste generator has to segregate waste into five categories.
- b) The Rules are applicable to notified urban local bodies, notified towns and all industrial townships only.
- c) The Rules provide for exact and elaborate criteria for the identification of sites for landfills and waste processing facilities.
- d) It is mandatory on the part of the waste generator that the waste generated in one district cannot be moved to another district.

17] In India, 'extended producer responsibility' was introduced as an important feature in which of the following? [2019]

- a) The Bio-medical Waste (Management and Handling) Rules, 1998
- b) The Recycled Plastic (Manufacturing and Usage) Rules, 1999
- c) The e-Waste (Management and Handling) Rules, 2011
- d) The Food Safety and Standard Regulations, 2011

18] How is the National Green Tribunal (NGT) different from Central Pollution Control Board (CPCB)? [2018]

1. The NGT has been established by an Act and CPCB has been created by an executive order of the government.
2. The NGT provides environmental justice and helps reducing the burden of litigation in the High Courts whereas the CPCB promotes the cleanliness of streams and wells , aims to improve the quality of air in the country.
3. In Kerala, a little over 60 percent agricultural households reported to have maximum income from sources other than agricultural activities.

Which of the statement(s) given below is/are correct?

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

19] In the context of solving pollution problems, what is/are the advantage/advantages of bioremediation technique? [2017]

1. It is a technique for cleaning up pollution by enhancing the same biodegradation process that occurs in nature.
2. Any contaminant with heavy metals such as cadmium and lead can be readily and completely treated by bioremediation using microorganisms.
3. Genetic engineering can be used to create microorganisms specifically designed for bioremediation.

Select the correct answer using the code given below:

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

20] Biological Oxygen Demand (BOD) is a standard criterion for: [2017]

- a) Measuring oxygen levels in blood
- b) Computing oxygen levels in forest ecosystems
- c) Pollution assay in aquatic ecosystems
- d) Assessing oxygen levels in high altitude regions

21] In the cities of our country, which among the following atmospheric gases are normally considered in calculating the value of the Air Quality Index? [2016]

1. Carbon dioxide
2. Carbon monoxide
3. Nitrogen dioxide
4. Sulphur dioxide
5. Methane

Select the correct answer using the code given below.

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

22] With reference to bio-toilets used by the Indian Railways, consider the following statements: [2015]

1. The decomposition of human waste in the bio-toilets is initiated by a fungal inoculum.
2. Ammonia and water vapour are the only end products in this decomposition which are released into the atmosphere.

Which of the statements given above is/are correct?

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

23] With reference to 'fly ash' produced by the power plants using the coal as fuel, which of the following statements is/are correct? [2015]

1. Fly ash can be used in the production of bricks for building construction
2. Fly ash can be used as a replacement for some of the Portland cement contents of concrete
3. Fly ash is made up of silicon dioxide and calcium oxide only, and does not contain any toxic elements.

Select the correct answer using the code given below

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

Environmental Conservation

2015 - 2023 Prelims PYQs

1] Consider the following statements: [2023]

Once the Central Government notifies an area as a 'Community Reserve'

1. The Chief Wildlife Warden of the State becomes the governing authority of such forest
2. Hunting is not allowed in such area
3. People of such area are allowed to collect non-timber forest produce
4. People of such area are allowed traditional agricultural practices

How many of the above statements are correct?

- a) Only one
- b) Only two
- c) Only three
- d) All Four

2] With reference to 'Scheduled Areas' in India, consider the following statements : [2023]

1. Within a State, the notification of an area as Scheduled Area takes place through an order of the President.
2. The largest administrative unit forming the Scheduled Area is the District and the lowest is

the cluster of villages in the Block.

3. The Chief Ministers of the concerned State are required to submit annual reports to the Union Home Ministry on the administration of Schedule Areas in the States.

How many of the above statements are correct?

- a) Only one
- b) Only two
- c) All three
- d) None

3] Consider the following statements: [2023]

1. In India, the Biodiversity Management Committees are key to the realization of the objectives of the Nagoya Protocol.

2. The Biodiversity Management Committees have important functions in determining access and benefit sharing, including the power to levy collection fees on the access of biological resources within its jurisdiction.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 or 2

4] Which one of the following has been constituted under the Environment (Protection) Act, 1986? [2022]

- a) Central Water Commission
- b) Central Ground Water Board
- c) Central Ground Water Authority
- d) National Water Development Agency

5] With reference to Indian laws about wildlife protection, consider the following statements: [2022]

1. Wild animals are the sole property of the government.

2. When a wild animal is declared protected, such animal is entitled for equal protection whether it is found in protected areas or outside.

3. Apprehension of a protected wild animal becoming a danger to human life is sufficient ground for its capture or killing.

Which of the statements given above is/are correct?

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

6] With reference to India's Desert National Park, which of the following statements are correct? [2020]

1. It is spread over two districts.

2. There is no human habitation inside the Park.

3. It is one of the natural habitats of the Great Indian Bustard.

Select the correct answer using the code given below:

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

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

7] Among the following Tiger Reserves, which one has the largest area under 'Critical Tiger Habitat'? [2020]

- a) Corbett
- b) Ranthambore
- c) Nagarjunasagar-Srisaïlam
- d) Sundarbans

8] If a particular plant species is placed under Schedule VI of The Wildlife Protection Act, 1972, what is the implication? [2020]

- a) A licence is required to cultivate that plant.
- b) Such a plant cannot be cultivated under any circumstances.
- c) It is a Genetically Modified crop plant.
- d) Such a plant is invasive and harmful to the ecosystem.

9] Which of the following Protected Areas are located in Cauvery basin? [2020]

1. Nagarhole National Park
2. Papikonda National Park
3. Sathyamangalam Tiger Reserve
4. Wayanad Wildlife Sanctuary

Select the correct answer using the code given below:

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

10] Which one of the following protected areas is well-known for the conservation of a sub-species of the Indian swamp deer (Barasingha) that thrives well on hard ground and is exclusively graminivorous? [2020]

- a) Kanha National Park
- b) Manas National Park
- c) Mudumalai Wildlife Sanctuary
- d) Tal Chhapar Wildlife Sanctuary

11] Which one of the following National Parks lies completely in the temperate alpine zone? [2019]

- a) Manas National Park
- b) Namdapha National Park
- c) Neora Valley National Park
- d) Valley of Flowers National Park

12] Which of the following are in Agasthyamala Biosphere Reserve? [2019]

- a) Neyyar, Idl Peppara and Shendurney Wildlife Sanctuaries; and Kalakad Mundanthurai Tiger Reserve

- b) Mudumalai, Sathyamangalam and Wayanad Wildlife Sanctuaries; and Silent Valley National Park
- c) Kaundinya, Gundla Brahmeswaram and Papikonda Wildlife Sanctuaries; and Mukurthi National Park
- d) Kawal and Sri Venkateswara Wildlife Sanctuaries; and Nagarjunasagar-Srisailem Tiger Reserve

13] Consider the following statements: [2019]

1. Under Ramsar Convention, it is mandatory on the part of the Government of India to protect and conserve all the wetlands in the territory of India.
2. The Wetlands (Conservation and Management) Rules, 2010 were framed by the Government of India based on the recommendations of Ramsar Convention.
3. The Wetlands (Conservation and Management) Rules, 2010 also encompass the drainage area or catchment regions of the wetlands as determined by the authority.

Which of the statements given above is/are correct?

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

14] Consider the following statements: [2019]

1. As per law, the Compensatory Afforestation Fund Management and Planning Authority exists at both National and State levels.
2. People's participation is mandatory in the compensatory afforestation programmes carried out under the Compensatory Afforestation Fund Act, 2016.

Which of the statements given above is/are correct?

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

15] In which of the following States is Pakhui Wildlife Sanctuary located? [2018]

- a) Arunachal Pradesh
- b) Manipur
- c) Meghalaya
- d) Nagaland

16] Consider of the following statements: [2018]

1. The Definition of 'Critical Wildlife Habitat' is incorporated in the Forest Rights, 2006.
2. For the first time in India, Baigas have been given Habitat Rights.
3. Union Ministry of Environment, Forest and Climate Change officially decides and declares Habitat Rights for Primitives and Vulnerable Tribal Groups in any part of India.

Which of the statements given below is/are correct?

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

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

17] According to the Wildlife (Protection) Act, 1972, which of the following animals cannot be hunted by any person except under some provisions provided by law? [2017]

- 1. Gharial
- 2. Indian wild ass
- 3. Wild buffalo

Select the correct answer using the code given below:

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

18] The term 'M-STripES' is sometimes seen in the news in the context of: [2017]

- a) Captive breeding of Wild Fauna
- b) Maintenance of Tiger Reserves
- c) Indigenous Satellite Navigation System
- d) Security of National Highways

19] In India, if a species of tortoise is declared protected under Schedule I of the Wildlife (Protection) Act, 1972, what does it imply? [2017]

- a) It enjoys the same level of protection as the tiger.
- b) It no longer exists in the wild, a few individuals are under captive protection; and now it is impossible to prevent its extinction.
- c) It is endemic to a particular region of India.
- d) Both (b) and (c) stated above are correct in this context.

20] Recently there was a proposal to translocate some of the lions from their natural habitat in Gujarat to which one of the following sites? [2017]

- a) Corbett National Park
- b) Kuno Palpur Wildlife Sanctuary
- c) Mudumalai Wildlife Sanctuary
- d) Sariska National Park

21] From the ecological point of view, which one of the following assumes importance in being a good link between the Eastern Ghats and the Western Ghats? [2017]

- a) Sathyamangalam Tiger Reserve
- b) Nallamala Forest
- c) Nagarhole National Park
- d) Seshachalam Biosphere Reserve

22] Which of the following are the key features of 'National Ganga River Basin Authority (NGRBA)? [2016]

- 1. River basin is the unit of planning and management.
- 2. It spearheads the river conservation efforts at the national level.

3. One of the Chief Ministers of the States through which the Ganga flows becomes the Chairman of NGRBA on rotation basis.

Select the correct answer using the code given Below.

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

23] Which of the following best describes/ describe the aim of 'Green India Mission' of the Government of India? [2016]

- 1. Incorporating environmental benefits and costs into the Union and State Budgets thereby implementing the 'green accounting'
- 2. Launching the second green revolution to enhance agricultural output so as to ensure food security to one and all in the future
- 3. Restoring and enhancing forest cover and responding to climate change by a combination of adaptation and mitigation measures

Select the correct answer using the code given below.

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

24] Which one of the following National Parks has a climate that varies from tropical to subtropical, temperate and arctic? [2015]

- a) Khangchendzonga National park
- b) Nandadevi National Park
- c) Neora Valley National Park
- d) Namdapha National park

25] Which of the following National Parks is unique in being a swamp with floating vegetation that supports a rich biodiversity? [2015]

- a) Bhitarkanika National Park
- b) Keibul Lamjao National Park
- c) Keoladeo Ghana National park
- d) Sultanpur National park

Global Initiatives for Environment

2015 - 2023 Prelims PYQs

1] ‘Invasive Species Specialist Group’ (that develops Global Invasive Species Database) belongs to which one of the following organizations? [2023]

- a) The International Union for Conservation of Nature
- b) The United Nations Environment Programme
- c) The United Nations World Commission for Environment and Development
- d) The World Wide Fund for Nature

2] Consider the following statements: [2023]

Statement-I : Carbon markets are likely to be one of the most widespread tools in the fight against climate change.

Statement-II : Carbon market transfer resources from private sector to the State.

Which of the following is correct in respect of the above statements?

- a) Both Statement-I and Statement-II are correct and Statement-II is the correct explanation for Statement-I.
- b) Both Statement-I and Statement-II are correct and Statement-II is not the correct explanation for Statement-I.
- c) Statement-I is correct but Statement-II is incorrect.
- d) Statement-I is incorrect but Statement-II is correct.

3] “Climate Action Tracker” which monitors the emission reduction pledges of different countries is a: [2022]

- a) Database created by coalition of research organisations
- b) Wing of “International Panel of Climate Change”
- c) Committee under “United Nations Framework Convention on Climate Change”
- d) Agency promoted and financed by United Nations Environment Programme and World Bank

4] Consider the following statements: [2022]

1. “The Climate Group” is an international non-profit organization that drives climate action by building large networks and runs them.
2. The International Energy Agency in partnership with the Climate Group launched a global initiative “EP100”.
3. EP100 brings” together leading companies committed to driving innovation in energy efficiency and increasing competitiveness while delivering on emission reduction goals.
4. Some Indian companies are members of EP100.
5. The International Energy Agency is the Secretariat to the “Under2 Coalition”.

Which of the statements given above are Correct?

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

5] The “Miyawaki method” is well known for the: [2022]

- a) Promotion of commercial farming in arid and semi-arid areas
- b) Development of gardens using genetically modified flora

- c) Creation of mini forests in urban areas
- d) Harvesting wind energy on coastal areas and on sea surfaces

6] The 'Common Carbon Metric', supported by UNEP, has been developed for: [2021]

- a) Assessing the carbon footprint of building operations around the world
- b) Enabling commercial farming entities around the world to enter carbon emission trading
- c) Enabling governments to assess the overall carbon footprint caused by their countries
- d) Assessing the overall carbon footprint caused by the use of fossil fuels by the world in a unit time

7] With reference to the New York declaration on Forests, which of the following statements are correct? [2021]

- 1) It was first endorsed at the United Nations Climate Summit in 2014.
- 2) It endorses a global timeline to end the loss of forests.
- 3) It is a legally binding international declaration.
- 4) It is endorsed by governments, big companies and indigenous communities.
- 5) India was one of the signatories at its inception.

Select the correct answer using the code given below.

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

8] 'Momentum for Change: Climate Neutral Now' is an initiative launched by: [2018]

- a) The Intergovernmental Panel on Climate Change
- b) The UNEP Secretariat
- c) The UNFCCC Secretariat
- d) The World Meteorological Organization

9] The Partnership for Action Green Economy (PAGE), a UN mechanism to assist countries transition towards greener and more inclusive economies, emerged at: [2018]

- a) The Earth Summit on Sustainable Development 2002, Johannesburg
- b) The United Nations Conference on Sustainable Development 2012, Rio De Janeiro
- c) The United Nations Framework Convention on Climate Change 2015, Paris
- d) The World Sustainable Development Summit 2016, New Delhi

10] With reference to 'Global Climate Change Alliance', which of the following statements is/are correct? [2017]

- 1. It is an initiative of the European Union.
- 2. It provides technical and financial support to targeted developing countries to integrate climate change into their development policies and budgets.
- 3. It is coordinated by World Resources Institute (WRI) and World Business Council for Sustainable Development (WBCSD).

Select the correct answer using the code given below:

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

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

11] Consider the following statements: [2017]

1. Climate and Clean Air Coalition (CCAC) to Reduce Short Lived Climate Pollutants is a unique initiative of G20 group of countries.
2. The CCAC focuses on methane, black carbon and hydrofluorocarbons.

Which of the statements given above is/are correct?

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

12] Consider the following statements in respect of Trade Related Analysis of Fauna and Flora in Commerce (TRAFFIC): [2017]

1. TRAFFIC is a bureau under United Nations Environment Programme (UNEP).
2. The mission of TRAFFIC is to ensure that trade in wild plants and animals is not a threat to the conservation of nature.

Which of the above statements is/are correct?

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

13] With reference to an initiative called 'The Economics of Ecosystems and Biodiversity (TEEB)', which of the following statements is/are correct? [2016]

1. It is an initiative hosted by UNEP, IMF and World Economic Forum.
2. It is a global initiative that focuses on drawing attention to the economic benefits of biodiversity.
3. It presents an approach that can help decision-makers recognize, demonstrate and capture the value of ecosystems and biodiversity.

Select the correct answer using the code given below.

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

14] Which of the following statements is/are correct? [2016]

Proper design and effective implementation of UN-REDD+ Programme can significantly contribute to

1. Protection of biodiversity
2. Resilience of forest ecosystems
3. Poverty reduction

Select the correct answer using the code given below.

- a) 1 and 2 only

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

15] Consider the following pairs: [2016]

Terms sometimes seen in the news	Their origin
1. Annex-I Countries	Cartagena Protocol
2. Certified Emissions Reductions	Nagoya Protocol
3. Clean Development Mechanism	Kyoto Protocol

Which of the pairs given above is/are correctly matched?

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

16] What is 'Greenhouse Gas Protocol'? [2016]

- a) It is an international accounting tool for government and business leaders to understand, quantify and manage greenhouse gas emissions
- b) It is an initiative of the United Nations to offer financial incentives to developing countries to reduce greenhouse gas emissions and to adopt eco-friendly technologies
- c) It is an inter-governmental agreement ratified by all the member countries of the United Nations to reduce greenhouse gas emissions to specified levels by the year 2022
- d) It is one of the multilateral REDD+ initiatives hosted by the World Bank

17] With reference to 'Agenda 21', sometimes seen in the news, consider the following statements: [2016]

- 1. It is a global action plan for sustainable development
- 2. It originated in the World Summit on Sustainable Development held in Johannesburg in 2002.

Which of the statements given above is/are correct?

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

18] With reference to the Agreement at the UNFCCC Meeting in Paris in 2015, which of the following statements is/are correct? [2016]

- 1. The Agreement was signed by all the member countries of the UN and it will go into effect in 2017.

2. The Agreement aims to limit the greenhouse gas emissions so that the rise in average global temperature by the end of this century does not exceed 2 °C or even 1.5 °C above pre-industrial levels.
3. Developed countries acknowledged their historical responsibility in global warming and committed to donate \$ 1000 billion a year from 2020 to help developing countries to cope with climate change.

Select the correct answer using the code given below.

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

19] Consider the following statements: [2016]

1. The Sustainable Development Goals were first proposed in 1972 by a global think tank called the 'Club of Rome'.
2. The Sustainable Development Goals have to be achieved by 2030.

Which of the statements given above is/are correct?

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

20] The term 'Intended Nationally Determined Contributions' is sometimes seen in the news in the context of: [2016]

- a) pledges made by the European countries to rehabilitate refugees from the war-affected Middle East
- b) plan of action outlined by the countries of the world to combat climate change
- c) capital contributed by the member countries in the establishment of Asian Infrastructure Investment Bank
- d) plan of action outlined by the countries of the world regarding Sustainable Development Goals

21] 'BioCarbon Fund Initiative for Sustainable Forest Landscapes' is managed by the: [2015]

- a) Asian Development Bank
- b) International Monetary Fund
- c) United Nations Environment Programme
- d) World Bank

22] With reference to 'Forest Carbon Partnership Facility', which of the following statements is/are correct? [2015]

1. It is global partnership of governments, businesses, civil society and indigenous peoples
2. It provides financial aid to universities, individual scientists and institutions involved in scientific forestry research to develop eco-friendly and climate adaptation technologies for sustainable forest management
3. It assists the countries in their 'REDD+ (Reducing Emission from Deforestation and Forest

Degradation+)’ efforts by providing them with financial and technical assistance.

Select the correct answer using the code given below

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

23] Which one of the following is associated with the issue of control and phasing out of the use of ozone-depleting substances? [2015]

- a) Bretton Woods Conference
- b) Montreal Protocol
- c) Kyoto Protocol
- d) Nagoya Protocol

24] What is Rio+20 Conference, often mentioned in the news? [2015]

- a) It is the United nations Conference on Sustainable Development
- b) It is a Ministerial Meeting of the World Trade Organization
- c) It is a Conference of the Inter-governmental Panel on Climate Change
- d) It is a Conference of the Member Countries of the Convention on Biological Diversity

25] Which of the following statements regarding ‘Green Climate Fund’ is/are correct? [2015]

- 1. It is intended to assist the developing countries in adaptation and mitigation practices to counter climate change.
- 2. It is founded under the aegis of UNEP, OECD, Asian Development Bank and World Bank

Select the correct answer using the code given below.

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

Agriculture and Environment

2015 - 2023 Prelims PYQs

2023 No Question

1] Which of the following are nitrogen-fixing plants? [2022]

- 1. Alfalfa
- 2. Amaranth
- 3. Chickpea
- 4. Clover
- 5. Purslane (Kulfa)
- 6. Spinach

Select the correct answer using the code given below:

- a) 1, 3 and 4 only

- b) 1, 3, 5 and 6 only
- c) 2, 4, 5 and 6 only
- d) 1, 2, 4, 5 and 6

2] “System of Rice Intensification” of cultivation, in which alternate wetting and drying of rice fields is practised, results in: [2022]

- 1. Reduced seed requirement
- 2. Reduced methane production
- 3. Reduced electricity consumption

Select the correct answer using the code given below:

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

3] In the context of India’s preparation for Climate-Smart Agriculture, consider the following statements: [2021]

- 1) The ‘Climate-Smart Village’ approach in India is a part of a project led by the Climate Change, Agriculture and Food Security (CCAFS), an international research programme.
- 2) The project of CCAFS is carried out under Consultative Group on International Agricultural Research (CGIAR) headquartered in France.
- 3) The International Crops Research Institute for the Semi-Arid Tropics (ICRISAT) in India is one of the CGIAR’s research centres.

Which of the statements given above are correct?

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

4] What is/are the advantage/advantages of zero tillage in agriculture? [2020]

- 1. Sowing of wheat without burning the residue of previous crop.
- 2. Without the need for nursery of rice saplings, direct planting of paddy seeds in the wet soil is possible.
- 3. Carbon sequestration in the soil is possible

Select the correct answer using the code given below:

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

5] In the context of India, which of the following is/are considered to be practice(s) of eco-friendly agriculture? [2020]

- 1. Crop diversification
- 2. Legume intensification
- 3. Tensiometer use

4. Vertical farming

Select the correct answer using the code given below:

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

6] What is the use of biochar in farming? [2020]

- 1. Biochar can be used as a part of the growing medium in vertical farming.
- 2. When biochar is a part of the growing medium, it promotes the growth of nitrogen-fixing microorganisms.
- 3. When biochar is a part of the growing medium, it enables the growing medium to retain water for longer time.

Which of the statements given above is/are correct?

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

7] With reference to the 'Global Alliance for Climate Smart Agriculture (GACSA)', which of the following statements is/are correct? [2018]

- 1. GACSA is an outcome of the climate summit held in Paris in 2015.
- 2. Membership of GACSA does not create any binding obligations.
- 3. India was instrumental in the creation of GACSA.

Select the correct answer using the code given below:

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

8] With references to organic farming in India, consider the following statements: [2018]

- 1. 'The National Programme for Organic Production'(NPOP) is operated under the guidelines and directions of the Union Ministry Of the Rural Development.
- 2. 'The Agricultural and Processed and Products Export Development Authority'(APEDA) functions as the Secretariat for the implementation of NPOP.
- 3. Sikkim has become India's first fully organic State.

Which of the following given above is/are correct?

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

9] Which of the following is/are the advantage /advantages of practising drip irrigation? [2016]

- 1. Reduction in weed

2. Reduction in soil salinity
3. Reduction in soil erosion

Select the correct answer using the code given below.

- a) 1 and 2 only
- b) 3 only
- c) 1 and 3 only
- d) None of the above is an advantage of practising drip irrigation

10] Why does the Government of India promote the use of Neem-coated Urea' in agriculture? [2016]

- a) Release of Neem oil in the soil increases nitrogen fixation by the soil microorganisms
- b) Neem coating slows down the rate of dissolution of urea in the soil
- c) Nitrous oxide, which is a greenhouse gas, is not at all released into atmosphere by crop fields
- d) Six is a combination of a weedicide and a fertilizer for particular crops

11] What can be the impact of excessive/inappropriate use of nitrogenous fertilizers in agriculture? [2015]

1. Proliferation of nitrogen-fixing microorganisms in soil can occur.
2. Increase in the acidity of soil can take place
3. Leaching of nitrate to the ground-water can occur.

Select the correct answer using the code given below.

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

12] Consider the following statements: [2015]

1. The Accelerated Irrigation Benefits Programme was launched during 1996-97 to provide loan assistance to poor farmers.
2. The Command Area Development Programme was launched in 1974-75 for the development of water-use efficiency.

Which of the statements given above is/are correct?

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

Renewable and Alternative Energy Sources

1] With reference to green hydrogen, consider the following statements: [2023]

1. It can be used directly as a fuel for internal combustion.
2. It can be blended with natural gas and used as fuel for heat or power generation.
3. It can be used in the hydrogen fuel cell to run vehicles.

How many of the above statements are correct?

- a) Only one b) Only two
c) All three d) None

2] Consider the following heavy industries: [2023]

1. Fertilizer plants
2. Oil refineries
3. Steel plants

Green hydrogen is expected to play a significant role in decarbonizing how many of the above industries?

- a) Only one b) Only two
c) All three d) None

3] Consider the following statements: [2022]

1. Gujarat has the largest solar park in India.
2. Kerala has a fully solar powered International Airport.
3. Goa has the largest floating solar photovoltaic project in India.

Which of the statements given below is/are correct?

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

4] According to India's National Policy on Biofuels, which of the following can be used as raw materials for the production of biofuels? [2020]

1. Cassava
2. Damaged wheat grains
3. Groundnut seeds
4. Horse gram
5. Rotten potatoes
6. Sugar beet

Select the correct answer using the code given below:

- a) 1, 2, 5 and 6 only
b) 1, 3, 4 and 6 only
c) 2, 3, 4 and 5 only
d) 1, 2, 3, 4, 5 and 6

5] With reference to solar water pumps, consider the following statements: [2020]

1. Solar power can be used for running surface pumps and not for submersible pumps.
2. Solar power can be used for running centrifugal pumps and not the ones with piston.

Which of the statements given above is/are correct?

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

6] It is possible to produce algae based biofuels, but what is/are the likely limitation(s) of developing countries in promoting this industry? [2017]

1. Production of algae based biofuels is possible in seas only and not on continents.
2. Setting up and engineering the algae based biofuel production requires high level of expertise/technology until the construction is completed.
3. Economically viable production necessitates the setting up of large scale facilities which may raise ecological and social concerns.

Select the correct answer using the code given below:

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

7] With reference to the Indian Renewable Energy Development Agency Limited (IREDA), which of the following statements is/are correct? [2015]

1. It is a Public Limited Government Company.
2. It is a Non ' Banking Financial Company.

Select the correct answer using the code given below.

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 or 2