

## IASBABA

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# IRP Environment Final Compilation



#### DELHI

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#### Q.1) Consider the following statements:

- 1. Primary productivity is constant across different types of ecosystems.
- 2. Secondary productivity is defined as the rate of formation of new organic matter by consumers.

#### Which of the statements given above is/are NOT CORRECT?

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

#### Q.1) Solution (a)

Primary productivity depends on the plant species inhabiting a particular area. It also depends on a variety of environmental factors, availability of nutrients and photosynthetic capacity of plants. Therefore, Primary Productivity varies in different types of ecosystems.

#### Hence Statement 1 is incorrect.

Secondary productivity is defined as the rate of formation of new organic matter by consumers.

Hence Statement 2 is correct.

#### Q.2) Consider the following statements:

- 1. Primary Carnivores are also the primary consumers.
- 2. Death of organism is the beginning of the detritus food chain/web.

#### Which of the statements given above is/are correct?

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

#### Q.2) Solution (b)

Herbivores are considered as primary consumers. Primary carnivores can be considered as secondary consumers.

#### Hence Statement 1 is incorrect.

Death of organism is the beginning of the detritus food chain/web.

Hence Statement 2 is correct.

#### Q.3) Consider the following statements:

- 1. Each trophic level has a certain mass of living material at a particular time called as the standing crop.
- 2. The biomass of a species is expressed only in terms of dry weight.

#### Which of the statements given above is/are correct?

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

#### Q.3) Solution (a)

Each trophic level has a certain mass of living material at a particular time called as the standing crop. The standing crop is measured as the mass of living organisms (biomass) or the number in a unit area.

#### Hence Statement 1 is correct.

The biomass of a species is expressed in terms of fresh or dry weight.

Hence Statement 2 is incorrect.

#### Q.4) Consider the following statements:

- 1. The pyramid of biomass in sea is generally inverted.
- 2. A given species may occupy more than one trophic level in the same ecosystem at the same time.

#### Which of the statements given above is/are NOT CORRECT?

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

#### Q.4) Solution (d)

The pyramid of biomass in sea is generally inverted, because the biomass of fishes far exceeds that of phytoplankton.

#### Hence Statement 1 is correct.

A given species may occupy more than one trophic level in the same ecosystem at the same time. For example, a sparrow is a primary consumer when it eats seeds, fruits, peas, and a secondary consumer when it eats insects and worms.

Hence Statement 2 is correct.

#### Q.5) Consider the following statements:

- 1. Atmospheric inputs of carbon through rainfall are much smaller than phosphorus inputs.
- 2. Gaseous exchanges of phosphorus between organism and environment are negligible.

#### 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

#### Q.5) Solution (b)

Atmospheric inputs of phosphorus through rainfall are much smaller than carbon inputs.

#### Hence Statement 1 is incorrect.

Gaseous exchanges of phosphorus between organism and environment are negligible.

Hence Statement 2 is correct.

#### Q.6) Which of the following best defines the permaculture?

- a) Permaculture is a system of agriculture and aquaculture within the ecological carrying capacity of the region.
- Permaculture is a system of agricultural and social design principles centered on simulating or directly utilizing the patterns and features observed in natural ecosystems.
- c) Permaculture is a system of agriculture and agro based industry developing side by side.
- d) None of the above

#### Q.6) Solution (b)

- Permaculture is the conscious design and maintenance of agriculturally productive ecosystems which have the diversity, stability, and resilience of natural ecosystems.
- It is the harmonious integration of landscape and people —providing their food, energy, shelter, and other material and non-material needs in a sustainable way.
- The term was coined by Bill Mollison in 1978.

#### Hence Statement b is correct

## Q.7) Which of the following statements correctly explains the 10 per cent law in context of ecology?

- a) Only 10 per cent of the energy is transferred to each trophic level from the lower trophic level.
- b) Biomass in one tropic level is only 10% of the lower trophic level.
- c) With 10 per cent increase in sunlight the vegetation growth in an ecosystem gets doubled.
- d) With increase in global warming the temperature will increase by 10 per cent.

#### Q.7) Solution (a)

- The Ten percent law of transfer of energy from one trophic level to the next was introduced by Raymond Lindeman (1942).
- According to this law, during the transfer of energy from organic food from one trophic level to the next, only about ten percent of the energy from organic matter is stored as flesh.

#### Hence Statement a is correct

#### Q.8). Which of the following statements regarding Ecological succession is/are correct?

- 1. Hydrarch succession takes place in wetter areas and the successional series progress from hydric to the mesic conditions.
- 2. Xerarch succession takes place in dry areas and the series progress from xeric to mesic conditions.

#### 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

#### Q.8) Solution (c)

- The gradual and fairly predictable change in the species composition of a given area is called ecological succession
- Based on the nature of the habitat whether it is water (or very wet areas) or it is on very dry areas – succession of plants is called hydrach or xerarch, respectively.

Hydrarch succession takes place in wetter areas and the successional series progress from hydric to the mesic conditions.

#### **Hence Statement 1 is correct**

Xerarch succession takes place in dry areas and the series progress from xeric/dry to mesic conditions.

#### Hence Statement 2 is correct

## Q.9) "The entire complement of species of organisms, plants and animals found within a given region". Select the correct term related to the phrase:

- a) Community
- b) Biotype
- c) Biota
- d) Biome

#### Q.9) Solution (c)

**Community** is an assemblage or association of populations of two or more different species occupying the same geographical area and in a particular time, also known as a biocoenosis.

**Biotype**: A biotope is an area of uniform environmental conditions providing a living place for a specific assemblage of plants and animals. Biotope is almost synonymous with the term habitat.

**Biota**: The entire complement of species of organisms, plants, and animals, found within a given region.

**Biome**: A large terrestrial ecosystem characterized by specific plant communities and formations; usually named after the predominant vegetation in the region.

**Biosphere**: The totality of life on or near Earth's surface.

## Q.10) Consider the following statements with regard to the general characteristics for Lake Ecology:

- 1. The nutrient content is very low in Oligotrophic whereas nutrient content is very high in Eutrophic
- 2. Oxygen in the hypolimnion is present in Eutrophic whereas is absent in Oligotrophic.

#### Which of the above statements is/are correct?

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

#### Q.10) Solution (a)

On the basis of their nutrient content, they are categorized as Oligotrophic (very low nutrients), Mesotrophic (moderate nutrients) and Eutrophic (highly nutrient rich).

Vast majority of lakes in India are either Eutrophic or Mesotrophic because of the nutrients derived from their surroundings or organic waste entering them.

The nutrient content is very low in Oligotrophic whereas nutrient content is very high in Eutrophic

#### Hence Statement 1 is correct

Oxygen in the hypolimnion (bottom layer) is absent in Eutrophic whereas is present in Oligotrophic.

#### Hence Statement 2 is incorrect

#### Q.11) Consider the following statements:

- 1. The sudden and unpredictable change in the species composition of a given area is called ecological succession.
- 2. The entire sequence of communities that successively change in a given area are called seral communities.

#### Which of the statements given above is/are NOT CORRECT?

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

#### Q.11) Solution (c)

The gradual and fairly predictable change in the species composition of a given area is called ecological succession.

#### Hence Statement 1 is incorrect.

The entire sequence of communities that successively change in a given area are called sere(s).

The individual transitional communities are termed seral stages or seral communities.

#### Hence Statement 2 is incorrect.

#### Q.12) Consider the following statements:

- 1. Before a biotic community of diverse organisms can become established, there must be soil.
- 2. Primary succession begins in areas where natural biotic communities have been destroyed.

#### Which of the statements given above is/are correct?

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

#### Q.12) Solution (a)

Before a biotic community of diverse organisms can become established, there must be soil.

#### Hence Statement 1 is correct.

Secondary succession begins in areas where natural biotic communities have been destroyed.

#### Hence Statement 2 is incorrect.

#### Q.13) Consider the following statements:

- 1. The species that invade a bare area are called pioneer species.
- 2. The climax community remains stable as long as the environment remains unchanged.

#### Which of the statements given above is/are correct?

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

#### Q.13) Solution (c)

The species that invade a bare area are called pioneer species. In primary succession on rocks these are usually lichens which are able to secrete acids to dissolve rock,

#### Hence Statement 1 is correct.

The climax community remains stable as long as the environment remains unchanged.

Hence Statement 2 is correct.

#### Q.14) Consider the following statements:

- 1. Nitrifying bacteria change the ammonia in the soil to nitrates and then into nitrites.
- 2. Nitrogen oxides dissolve in rain forming nitrates.

#### Which of the statements given above is/are NOT CORRECT?

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

#### Q.14) Solution (a)

Nitrifying bacteria change the ammonia in the soil to nitrites and then into nitrates.

Hence Statement 1 is incorrect.

Nitrogen oxides dissolve in rain forming nitrates.

Hence Statement 2 is correct.

#### **Additional Information:**

The inert nature of N2 means that biologically available nitrogen is often in short supply in natural ecosystems, limiting plant growth.

#### Q.15) Consider the following statements:

- 1. Oceans stores significantly higher amounts of Carbon as compared to atmosphere.
- 2. Decomposers also contribute substantially to CO2 pool by their processing of waste materials.

#### 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

#### Q.15) Solution (c)

Oceans stores significantly higher amounts of Carbon as compared to atmosphere.

#### Hence Statement 1 is correct.

Decomposers also contribute substantially to CO2 pool by their processing of waste materials and dead organic matter of land or oceans.

Hence Statement 2 is correct.

#### Q.16) Consider the following statements:.

- 1. The flow of energy from producer to top consumers is called energy flow which is bidirectional.
- 2. The pyramid of energy is always upward, with a large energy base at the bottom.
- 3. Biomass pyramid concept helps to explain the phenomenon of biological magnification.

#### Which of the above statements is/are correct?

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

#### Q.16) Solution (a)

The flow of energy from producer to top consumers is called energy flow which is unidirectional.

#### Hence Statement 1 is incorrect

The pyramid is always upward, with a large energy base at the bottom.

#### **Hence Statement 2 is correct**

Energy pyramid concept helps to explain the phenomenon of biological magnification the tendency for toxic substances to increase in concentration progressively at higher levels of the food chain

#### Hence Statement 3 is incorrect

## Q.17) Biomagnification refers to the tendency of pollutants to concentrate as they move from one trophic level to the next. Consider the following statements.

- 1. In biomagnification there is an increase in concentration of a pollutant from one link in a food chain to another.
- 2. In order for biomagnification to occur, the pollutant must be long-lived, mobile, soluble in water and biologically inactive.

#### Which of the above statements is/are correct?

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

#### Q.17) Solution (a)

In biomagnification there is an increase in concentration of a pollutant from one link in a food chain to another.

#### Hence Statement 1 is correct

In order for biomagnification to occur, the pollutant must be: long-lived, mobile, soluble in fats, biologically active.

#### Hence Statement 2 is incorrect

#### Q.18) With reference to food chains in ecosystems, consider the following statements:

- 1. A food chain illustrates the order in which a chain of organisms feed upon each other.
- 2. A food chain illustrates the numbers of each organism which are eaten by others.

#### 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

#### Q.18) Solution (a)

A food chain illustrates the order in which a chain of organisms feed upon each other.

#### Hence statement 1 is correct.

A food web illustrates the numbers of each organism which are eaten by others

#### Hence statement 2 is incorrect.

#### Q.19) Which of the statements given below is/are correct regarding phosphorus cycle?

- 1. Rocks are the major reservoir of phosphorus which contains phosphorus in the form of phosphates.
- 2. Animals obtain phosphorus indirectly through plants.
- 3. There is no respiratory release of phosphorus in atmosphere.

#### Select the correct answer from the code given below:

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

#### Q.19) Solution (d)

Rocks are the major reservoir of phosphorus which contains phosphorus in the form of phosphates.

#### Hence statement 1 is correct.

Animals obtain phosphorus indirectly through plants.

#### Hence statement 2 is correct.

There is no respiratory release of phosphorus in atmosphere.

#### Hence statement 3 is correct.

## Q.20) The benefits that people obtain from ecosystems are termed as ecosystem services. Which of the following is/are the types of Ecosystem services?

- 1. Provisioning services
- 2. Regulating services
- 3. Habitat services
- 4. Cultural services

#### Select the correct answer from the code given below:

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

#### Q.20) Solution (d)

Ecosystem services can be categorized in four main types:

**Provisioning services** are the products obtained from ecosystems such as food, fresh water, wood, fiber, genetic resources and medicines.

**Regulating services** are defined as the benefits obtained from the regulation of ecosystem processes such as climate regulation, natural hazard regulation, water purification and waste management, pollination or pest control.

**Habitat services** highlight the importance of ecosystems to provide habitat for migratory species and to maintain the viability of gene-pools.

**Cultural services** include non-material benefits that people obtain from ecosystems such as spiritual enrichment, intellectual development, recreation and aesthetic values.

#### Q.21) Consider the following statements:

- 1. Taiga is devoid of trees except stunted shrubs in the southern part of taiga biome, ground flora includes lichen, mosses and sedges.
- 2. No two Biomes are alike.

#### Which of the statements given above is/are NOT CORRECT?

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

#### Q.21) Solution (a)

Tundra is devoid of trees except stunted shrubs in the southern part of tundra biome, ground flora includes lichen, mosses and sedges.

#### Hence Statement 1 is incorrect.

No two Biomes are alike.

Hence Statement 2 is correct.

#### Q.22) Consider the following statements:

- 1. Epiphytes attach themselves to the trunks, branches, or foliage of trees.
- 2. Epiphytes use its host solely as a means of physical support.

#### Which of the statements given above is/are correct?

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

#### Q.22) Solution (c)

Epiphytes ("air plants") are common in low-latitude rainforest.

Epiphytes attach themselves to the trunks, branches, or foliage of trees.

#### Hence Statement 1 is correct.

Epiphytes use its host solely as a means of physical support.

Epiphytes include plants of many different types, among them ferns, orchids, mosses, and lichens.

Hence Statement 2 is correct.

#### Q.23) Consider the following statements:

- 1. Monsoon forests are found in Myanmar, Thailand, and Cambodia.
- 2. Trees of the monsoon forest shed their leaves in the dry season.

#### Which of the statements given above is/are correct?

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

#### Q.23) Solution (c)

The typical regions of monsoon forest are found in Myanmar, Thailand, and Cambodia.

#### Hence Statement 1 is correct.

Trees of the monsoon forest shed their leaves in the dry season.

The forest cover is sparser and the trees shorter than in rainforest. Tree trunks are massive, often with thick, rough bark. Branching starts at a comparatively low level and produces large, round crowns.

Hence Statement 2 is correct.

#### Q.24) Consider the following statements:

1. Subtropical evergreen forest is generally found in regions of moist subtropical climate, where winters are mild and there is ample rainfall throughout the year.

2. The subtropical broadleaf evergreen forest has fewer tree species than the low-latitude rainforests.

#### Which of the statements given above is/are NOT CORRECT?

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

#### Q.24) Solution (d)

Subtropical evergreen forest is generally found in regions of moist subtropical climate, where winters are mild and there is ample rainfall throughout the year. This forest occurs in two forms: broadleaf and needleleaf

#### Hence Statement 1 is correct.

The subtropical broadleaf evergreen forest has fewer tree species than the low-latitude rainforests, which also are home to broadleaf evergreen types. Trees are not as tall here as in the low-latitude rainforests, and their leaves tend to be smaller and more leathery; thus, the leaf canopy is less dense.

Hence Statement 2 is correct.

#### Q.25) Consider the following statements:

- 1. Midlatitude deciduous forest consists largely of trees that drop their leaves during the cold season.
- 2. Where the deciduous forests have been cleared by lumbering, pines readily develop as second-growth forest.

#### 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

#### Q.25) Solution (c)

Midlatitude deciduous forest is the forest type native to eastern North America and western Europe.

Midlatitude deciduous forest consists largely of trees that drop their leaves during the cold season.

#### Hence Statement 1 is correct.

Where the deciduous forests have been cleared by lumbering, pines readily develop as second-growth forest.

Trees common to the deciduous forest of eastern North America, southeastern Europe, and eastern Asia are oak, beech, birch, hickory, walnut, maple, elm, and ash

Hence Statement 2 is correct.

#### 26) Which of the following statement is/are correct with respect to Wetlands?

- 1. Sediments deposited by the rivers and river floodplains helps in the formation of wetlands.
- 2. Wetlands are found from the tundra to the tropics and on every continent.
- 3. Lakes are generally less important when compared to wetland from the viewpoint of ecosystem and biodiversity conservation.

#### Select the correct answer using the code given below:

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

#### Q.26) Solution (b)

Sediments deposited by the rivers and river floodplains helps in the formation of wetlands.

#### Hence Statement 1 is correct

Wetlands are found from the tundra to the tropics and on every continent except Antarctica.

#### Hence Statement 2 is incorrect

Lakes are generally less important when compared to wetland from the viewpoint of ecosystem and biodiversity conservation.

#### Hence Statement 3 is correct

#### Q.27) Consider the statements regarding 'Aquatic Biome'

- 1. The topmost zone near the shore of a lake or pond is the littoral zone.
- 2. The near-surface open water surrounded by the littoral zone is the profundal zone.
- 3. The deep-water part of the lake or pond is the limnetic zone.

Which of the statements given above is/are correct?

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

#### Q.27) Solution (b)

The topmost zone near the shore of a lake or pond is the littoral zone.

#### Hence Statement 1 is correct

The near-surface open water surrounded by the littoral zone is the limnetic zone.

#### **Hence Statement 2 is incorrect**

Plankton has short life spans—when they die, they fall into the deep-water part of the lake/pond, the profundal zone.

#### **Hence Statement 3 is incorrect**

#### Q.28) Consider the below statements in regard to plants found in Desert ecosystem:

- 1. Root system is not developed well and spread over small area to retain water.
- 2. Leaves are absent or reduced in size.
- 3. In some plants even the stem contains chlorophyll for photosynthesis.

#### Which of the statements given above is/are NOT CORRECT?

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

#### Q.28) Solution (a)

Deserts are formed in regions with less than 25 cm of annual rainfall, or sometimes in hot regions where there is more rainfall, but unevenly distributed in the annual cycle.

Root system is well developed and spread over large area.

#### Hence Statement 1 is incorrect

Leaves are absent or reduced in size.

#### Hence Statement 2 is correct

In some plants even the stem contains chlorophyll for photosynthesis.

#### Hence Statement 3 is correct

#### Q.29) Consider the following statements in regard to Aquatic Ecosystem:

- 1. Neustons are unattached organisms which live at the air-water interface.
- 2. Nektons are organisms which remain attached to stems and leaves of rooted plants and substances emerging above the bottom mud.
- 3. Planktons includes both microscopic plants like algae and animals like crustaceans and protozoans.

#### Which of the above given statement is/are correct?

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

#### Q.29) Solution (c)

Neustons are unattached organisms which live at the air-water interface such as floating plants.

#### Hence Statement 1 is correct

Periphytons are organisms which remain attached to stems and leaves of rooted plants and substances emerging above the bottom mud

#### Hence Statement 2 is incorrect

Planktons includes both microscopic plants like algae (phytoplanktons) and animals like crustaceans and protozoans (zooplanktons) found in all aquatic ecosystems, except certain swift moving waters.

#### Hence Statement 3 is correct

#### Q.30) Consider the following statements.

- 1. In Tundra type of vegetation, the growth of natural vegetation is very limited.
- 2. Tundra vegetation is found in the polar areas of Europe, Asia and North America.
- 3. Savannah shrubs are fire-res<mark>istant which help</mark>s them survive periodic, natural fire spread in forests.

#### Which of the above statements is/are correct?

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

#### Q.30) Solution (d)

In Tundra type of vegetation, the growth of natural vegetation is very limited.

#### Hence Statement 1 is correct

Tundra vegetation is found in the polar areas of Europe, Asia and North America.

#### Hence Statement 2 is correct

Savannah shrubs are fire-resistant which helps them survive periodic, natural fire spread in forests.

#### Hence Statement 3 is correct

#### Q.31) Consider the following statements:

- 1. Coastal forest is dominated by low trees with thick, leathery leaves that are well adapted to the long summer drought of the Mediterranean climate
- 2. Coastal forest is limited to west coasts between 30° and 40° to 45° N and S latitude.

#### Which of the statements given above is/are NOT CORRECT?

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

#### Q.31) Solution (c)

Sclerophyll forest is dominated by low trees with thick, leathery leaves that are well adapted to the long summer drought of the Mediterranean climate

#### Hence Statement 1 is incorrect.

Sclerophyll forest is limited to west coasts between 30° and 40° to 45° N and S latitude.

#### Hence Statement 2 is incorrect.

#### Q.32) Consider the following statements:

- 1. Steppe is a ground cover of tall grasses along with some broad-leafed herbs.
- 2. Steppe grades into semidesert in dry environments and into prairie where rainfall is higher.

#### Which of the statements given above is/are correct?

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

#### Q.32) Solution (b)

Steppe, or short-grass prairie, consists of sparse clumps of short grasses.

Tall-grass prairie is a ground cover of tall grasses along with some broad-leafed herbs.

#### Hence Statement 1 is incorrect.

Steppe grades into semidesert in dry environments and into prairie where rainfall is higher.

#### Hence Statement 2 is correct.

#### Q.33) Which of the following are NOT CORRECTLY matched:

#### Wetland State in which it is located

Hokera Wetland Punjab
 Kanjli Lake Uttarakhand
 Reunka Wetland Himachal Pradesh
 Saman Bird Sanctuary Rajasthan

#### Select the correct answer using the code given below:

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

#### Q.33) Solution (b)

#### Wetland State/UT in which it is located

1. Hokera Wetland Jammu and kashmir

2. Kanjli Lake Punjab

3. Reunka Wetland Himachal Pradesh4. Saman Bird Sanctuary Uttar Pradesh

#### Q.34) Consider the following statements:

- 1. A Country can join Ramsar Convention only if it designates one wetland site within its territory for inclusion in the List of Wetlands of International Importance.
- 2. International Water Management Institute (IWMI) is one of the International Organization Partner of the Ramsar Convention.

#### Which of the statements given above is/are NOT CORRECT?

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

#### Q.34) Solution (d)

At the time of joining the Ramsar Convention, each Contracting Party must designate at least one wetland site within their territory for inclusion in the List of Wetlands of International Importance.

#### Hence Statement 1 is correct.

International Water Management Institute (IWMI) is one of the International Organization Partner of the Ramsar Convention.

Hence Statement 2 is correct.

#### Q.35) Consider the following statements regarding Coral Polyps:

- 1. Each individual coral polyp extracts calcium carbonate from the seawater.
- 2. Coral polyp hosts symbiotic algae on which it is completely dependent for food.

#### 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

#### Q.35) Solution (a)

Each individual coral polyp extracts calcium carbonate from the seawater and secretes a limy skeleton around the lower half of its body.

#### Hence Statement 1 is correct.

Coral Polyps feed on minute animal and plant plankton. Although the coral polyp is an animal, reef-building hard corals are hosts to symbiotic algae that provide additional food for the coral polyp through photosynthesis..

Hence Statement 2 is incorrect.

#### Q.36) Which of the following statements about ocean acidification is/are NOT CORRECT?

- 1. Ocean acidification is the ongoing increase in the pH of the Earth's oceans, caused by the uptake of carbon dioxide from the atmosphere.
- 2. It increases the concentration of hydrogen ions and decreases the concentration of carbonate ions.
- 3. Ocean acidification leads to seawater pH go well below 7.

#### Select the correct answer using the code given below:

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

#### Q.36) Solution (c)

Ocean acidification is the ongoing decrease in the pH of the Earth's oceans, caused by the uptake of carbon dioxide (CO2) from the atmosphere.

#### Hence Statement 1 is incorrect

It increases the concentration of hydrogen ions and decreases the concentration of carbonate ions.

#### Hence Statement 2 is correct

Ocean acidification leads to seawater shift towards pH-neutral conditions rather than a transition to acidic conditions (pH < 7).

If pH will go well below 7 the entire marine life will extinguish.

#### **Hence Statement 3 is incorrect**

#### Q.37) Consider the following regarding types of corals:

- 1. Fringing reefs: reefs that grow close to the shore and extend out into the sea like a submerged platform.
- 2. Barrier reef: reefs separated from the land by wide expanses of water and follow the coastline.
- 3. Atolls: a roughly circular ring of reefs surrounding a lagoon, a low lying island, common in the Indian and South pacific oceans.

#### Which of the above statements is/are correct?

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

#### Q.37) Solution (d)

Fringing reefs: reefs that grow close to the shore and extend out into the sea like a submerged platform.

#### Hence Statement 1 is correct

Barrier reef: reefs separated from the land by wide expanses of water and follow the coastline.

#### **Hence Statement 2 is correct**

Atolls: a roughly circular ring of reefs surrounding a lagoon, a low lying island, common in the Indian and South pacific oceans.

#### Hence Statement 3 is correct

#### Q.38) Which of the following conditions is/are required for the Coral Reefs to Survive?

- 1. Sunlight
- 2. Clean water
- 3. Cold water temperature (12-15 degree Clesius)
- 4. Shallow water

#### Select the correct answer using the code given below:

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

#### Q.38) Solution (c)

Conditions is/are required for the Coral Reefs to Survive

- Sunlight
- Clean water
- Warm water temperature (around 20 degree Celsius)
- Shallow water

#### Q.39) Which of the following statements is/are correct regarding 'Hope spots'?

- 1. A hope spot is an area of an ocean that needs special protection because of its wildlife and significant underwater habitats.
- 2. India does not have any hope spots.

#### 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

#### Q.39) Solution (a)

A hope spot is an area of an ocean that needs special protection because of its wildlife and significant underwater habitats.

#### Hence Statement 1 is correct

Andaman and Nicobar Islands and Lakshadweep islands have been named as the new "hope spots" by the International Union for Conservation of Nature (IUCN).

#### Hence Statement 2 is incorrect

#### Q.40) Consider the following statements regarding Marine Ecosystem:

- 1. They serve as the sink of a large quantity of runoff and wastes from land.
- 2. Salinity impacts the speed of sound more significantly when compared to temperature and pressure.

#### 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

#### Q.40) Solution (a)

They serve as the sink of a large quantity of runoff and wastes from land.

#### **Hence Statement 1 is correct**

The impact of Salinity on the speed of sound is insignificant when compared to the influence of temperature and pressure.

#### Hence Statement 2 is incorrect

#### Q.41) Consider the following statements regarding National Ganga Council:

- 1. Prime Minister of India is the chairperson of National Ganga Council.
- The Council has been given overall responsibility for superintendence of pollution prevention and rejuvenation of River Ganga Basin, including Ganga and its tributaries.

#### Which of the statements given above is/are NOT CORRECT?

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

#### Q.41) Solution (d)

Prime Minister of India is the chairperson of National Ganga Council.

#### Hence Statement 1 is correct.

The Council has been given overall responsibility for superintendence of pollution prevention and rejuvenation of River Ganga Basin, including Ganga and its tributaries.

#### Hence Statement 2 is correct.

#### Q.42) Consider the following statements regarding Clean Ganga Fund:

- 1. Setting up of waste treatment and disposal plants along the river around the cities is one of the activities funded by Clean Ganga Fund.
- 2. Non-Resident Indians (NRIs) can also contribute to the Clean Ganga Fund.

#### Which of the statements given above is/are correct?

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

#### Q.42) Solution (c)

Setting up of waste treatment and disposal plants along the river around the cities is one of the activities funded by Clean Ganga Fund.

Some other activities include:

- Activities outlined under the 'Namami Gange' programme for cleaning of river Ganga.
- Control of non-point pollution from agricultural runoff, human defecation, cattle wallowing, etc.
- Conservation of the biotic diversity of the river.

#### Hence Statement 1 is correct.

Non-Resident Indians (NRIs) can also contribute to the Clean Ganga Fund.

#### Hence Statement 2 is correct.

#### Q.43) Which of the following are **NOT CORRECTLY matched**:

## National Park 1. Saniay Gandhi National Park Uttar Pradesh

Sanjay Gandhi National Park
 Mukurthi National Park
 Bannerghatta National Park
 Madhav National Park
 Rajasthan

#### Select the correct answer using the code given below:

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

#### Q.43) Solution (b)

National Park State in which it is located

Sanjay Gandhi National Park
 Mukurthi National Park
 Bannerghatta National Park
 Karnataka

4. Madhav National Park

Madhya Pradesh

#### Q.44) "India – Spearheading Climate Solutions" publication is released by:

- a) Union Ministry of Environment, Forest and Climate Change
- b) NITI Aayog
- c) UNFCCC
- d) World Bank

#### Q.44) Solution (a)

"India – Spearheading Climate Solutions" publication is released by Union Ministry of Environment, Forest and Climate Change.

This publication "India – Spearheading Climate Solutions" mentions the key actions India has taken under various sectors towards combating and adapting to climate change.

#### Q.45) Consider the following statements:

- 1. One of the primary components of photochemical smog is ozone.
- 2. ASH TRACK mobile application tracks the ozone levels of a particular area.

#### 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

#### Q.45) Solution (a)

One of the primary components of photochemical smog is ozone.

While ozone in the stratosphere protects earth from harmful UV radiation, ozone on the ground is hazardous to human health.

#### Hence Statement 1 is correct.

ASH TRACK Mobile App has been launched by the Ministry of Power for better management of fly ash produced by thermal power plants by providing an interface between fly ash producers.

Hence Statement 2 is incorrect.

#### Q.46) Western Ghats has very rich biodiversity as compared to Eastern Ghats, because -

- 1. Western Ghats are continuous mountains.
- 2. Western Ghats is area of high orographic precipitation.
- 3. Many major rivers have its source at Western Ghats.

#### Select the correct answer using the codes given below:

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

#### Q.46) Solution (d)

Western Ghats are continuous mountains.

#### Hence Statement 1 is correct

Western Ghats is area of high orographic precipitation.

#### Hence Statement 2 is correct

Many major rivers have its source at Western Ghats.

#### Hence Statement 3 is correct

## Q.47) The kurinji flower, that blooms every 12 years in the Western Ghats and the Nilgiris are called...

- a) Hardy flowering plants
- b) Half-hardy flowering plants
- c) Gregarious flowering plants
- d) Non-gregarious flowering plants

#### Q.47) Solution (c)

 Neela Kurinji or Strobilanthes kunthianus is a shrub predominantly found in the Shola forests of Western Ghats and Nilgiri Hills of South India. It flowers once in 12 years and dies immediately after producing seeds. Such plants are called gregarious flowering plants.

#### Hence Statement c is correct

#### Q.48) Consider the following statements regarding Biosphere Reserves:

- 1. The core area should be large enough to sustain viable population of all trophic levels.
- 2. All biosphere reserves of India are under the MAB programme of UNESCO.

#### 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

#### Q.48) Solution (a)

The core area should be large enough to sustain viable population of all trophic levels.

#### Hence Statement 1 is correct

Man and Biosphere Reserve Programme of UNESCO only 11 of the 18 biosphere reserves are covered.

#### Hence Statement 2 is incorrect

#### Q.49) Consider the following regarding 'Conservation International'

- 1. It is an international organization under United Nation Environment Program (UNEP) that aims to help stabilize global climate, protect fresh water, and ensure human well-being.
- 2. Biodiversity Hotspots is an initiative of Conservation International.

#### 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

#### Q.49) Solution (b)

Conservation International (CI) is an American non-profit environmental organization headquartered in Arlington, Virginia. Its goal is to protect nature as a source of food, fresh water, livelihoods and a stable climate.

#### **Hence Statement 1 is incorrect**

Biodiversity Hotspots is an initiative of Conservation International.

Biodiversity Hotspots project identifies and protects biological hotspots—places that exhibit the richest diversity and most threatened collections of plants and animals on our planet.

#### Hence Statement 2 is correct

## Q.50) In order to name a biodiversity hotspot, which of the following criteria is not taken into account?

- a) Endemism
- b) Biodiversity loss
- c) Lesser inter species competition
- d) Species richness

#### Q.50) Solution (c)

**Biodiversity Hotspot** 

To qualify as a biodiversity hotspot, a region must meet two strict criteria:

It must have at least 1,500 vascular plants as endemics — which is to say, it must have a high percentage of plant life found nowhere else on the planet. A hotspot, in other words, is irreplaceable.

It must have 30% or less of its original natural vegetation. In other words, it must be threatened.

Around the world, 35 areas qualify as hotspots. They represent just 2.3% of Earth's land surface, but they support more than half of the world's plant species as endemics — i.e., species found no place else — and nearly 43% of bird, mammal, reptile and amphibian species as endemics.

Hence Statement c is not taken into account.

#### Q.51) Consider the following statements:

- 1. National Air Quality Monitoring Programme (NAMP) is executed by Central Pollution Control Board.
- 2. Under NAMP 8 pollutants viz. PM10, PM2.5, SO2, NOx, ammonia (NH3), CO, ozone (O3), and benzene. PM10 are monitored.

#### Which of the statements given above is/are NOT CORRECT?

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

#### Q.51) Solution (b)

Central Pollution Control Board is executing a nation-wide programme of ambient air quality monitoring known as National Air Quality Monitoring Programme (NAMP).

#### Hence Statement 1 is correct.

Under NAMP, four air pollutants viz. Sulphur Dioxide (SO2), Oxides of Nitrogen as NO2, Respirable Suspended Particulate Matter (RSPM / PM10) and Fine Particulate Matter (PM2.5) are monitored.

Hence Statement 2 is incorrect.

#### Q.52) Consider the following statements:

- 1. Ambient air quality generally refers to the condition or quality of the outdoor air.
- 2. National Ambient Air Quality Standards (NAAQs) are the standards for ambient air quality with reference to various identified pollutant notified by the CPCB under the the Environment (Protection) Act, 1986.

#### Which of the statements given above is/are correct?

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

#### Q.52) Solution (a)

Ambient air quality generally refers to the condition or quality of the outdoor air.

Hence Statement 1 is correct.

National Ambient Air Quality Standards (NAAQs) are the standards for ambient air quality with reference to various identified pollutant notified by the CPCB under the Air (Prevention and Control of Pollution) Act, 1981.

Hence Statement 2 is incorrect.

#### Q.53) Consider the following statements:

- 1. E-waste burning generally releases Cadmium, dioxin, and furans.
- 2. Dioxins and furans are highly carcinogenic and persist in the environment.

#### Which of the statements given above is/are correct?

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

#### Q.53) Solution (c)

E-waste burning releases toxic ashes, cadmium, dioxin, and furans.

Organic solid wastes emit an obnoxious odour on their decomposition and make the environment polluted.

#### Hence Statement 1 is correct.

The most lethal incineration emissions are dioxins and furans, which are highly carcinogenic and persist in the environment.

Hence Statement 2 is correct.

#### Q.54) Consider the following statements regarding National Clean Air Programme (NCAP):

- 1. National level target of 20-30% reduction of PM2.5 and PM10 concentration by 2040.
- 2. The Central Pollution Control Board (CPCB) shall, execute the nation-wide programme for the prevention, control, and abetment of air pollution within the framework of the NCAP.

#### 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

#### Q.54) Solution (b)

National level target of 20-30% reduction of PM2.5 and PM10 concentration by 2024.

#### Hence Statement 1 is incorrect.

The Central Pollution Control Board (CPCB) shall, in consonance with the Air (Prevention and control of Pollution) Act, 1981, and in particular with the provision of Section 16(2)(b) of the Act, execute the nation-wide programme for the prevention, control, and abetment of air pollution within the framework of the NCAP.

Hence Statement 2 is correct.

#### Q.55) Consider the following statements:

- 1. Graded Response Action Plan (GRAP) for Delhi and the NCR region, comprises the graded measures for each source framed according to the AQI categories.
- 2. The responsibility of implementing GRAP lies with the Central Pollution Control Board (CPCB).

#### 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

#### Q.55) Solution (a)

Graded Response Action Plan (GRAP) for Delhi and the NCR region, comprises the graded measures for each source framed according to the AQI categories.

#### Hence Statement 1 is correct.

The responsibility of implementing GRAP lies with the Environment Pollution (Prevention And Control) Authority (EPCA).

Hence Statement 2 is incorrect.

#### Q.56) Consider the following statements regarding thermal pollution:

- 1. Thermal pollution comes only in the form of dumping warm waters into lake, river, or ocean.
- 2. Volcanic eruption is one source of thermal pollution.
- 3. Due to thermal pollution dissolved oxygen content in water increases.

#### Which of the statements given above is/are correct?

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

#### Q.56) Solution (b)

Any practice that affects the equilibrium of an aquatic environment may alter the temperature of that environment and subsequently cause thermal pollution. It may come in the form of warm or cold water being dumped into a lake, river, or ocean.

#### Hence Statement 1 is incorrect

Volcanic eruption is one source of thermal pollution.

#### **Hence Statement 2 is correct**

Due to thermal pollution dissolved oxygen content in water decreases.

#### Hence Statement 3 is incorrect

#### Q.57) Which of the following statements is/are correct regarding 'Blue Flag' certification?

- 1. It is given to cities which have taken stringent measures to curb air pollution.
- 2. It is a certification given by Foundation for Environmental Education (FEE).

#### Select the correct answer using the codes given below:

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

#### Q.57) Solution (b)

Blue Flag Certification Objective is Enhancing standards of cleanliness, upkeep and basic amenities at beaches.

#### Hence Statement 1 is incorrect

It is a certification given by Foundation for Environmental Education (FEE).

#### Hence Statement 2 is correct

Q.58) Photochemical smog is a mixture of pollutants that are formed when nitrogen oxides and volatile organic compounds (VOCs) react to sunlight. Consider the following about VOCs:

- VOCs are produced from the evaporation of naturally-occurring compounds such as terpenes.
- 2. VOCs are formed from the incomplete combustion of fossil fuels, from the evaporation of solvents and fuels, and from burning plant matter.

#### 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

#### Q.58) Solution (c)

VOCs are produced from the evaporation of naturally-occurring compounds such as terpenes which are the hydrocarbons in oils that make them burn. Eucalypts have also been found to release significant amounts of these compounds.

#### Hence Statement 1 is correct

VOCs are formed from the incomplete combustion of fossil fuels, from the evaporation of solvents and fuels, and from burning plant matter.

#### Hence Statement 2 is correct

Q.59) Which of the following substances are Ozone depleting substances?

- 1. Methyl Chloroform
- 2. Hydrochlorofluorocarbons
- 3. Methyl Bromide
- 4. Methyl Iodide

#### Select the correct answer using the codes:

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

#### Q.59) Solution (a)

Methyl Iodide is a naturally occurring substance, however it does not has ozone-depleting properties.

#### Q.60) Which of the following statements correctly explains 'Visual Pollution'?

- a) It is the presence of extra artificial light at night.
- b) It is the increase of dust and smoke in the atmosphere causing haziness.
- c) It is an aesthetic issue and refers to the impacts of pollution that impair one's ability to enjoy a vista or view.
- d) None of the above

#### Q.60) Solution (c)

Visual pollution is an aesthetic issue and refers to the impacts of pollution that impair one's ability to enjoy a vista or view.

#### Hence Statement c is correct

#### Q.61) Consider the following statements regarding The Forest (Conservation) Act, 1980:

- 1. State Government, without the approval of Central Government, cannot make any order directing forest land to be used for non-forest use.
- 2. Non-forest use does not include clearing of any forest land for the cultivation of tea, coffee.

#### Which of the statements given above is/are NOT CORRECT?

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

#### Q.61) Solution (b)

State Government, without the approval of Central Government, cannot make any order directing forest land to be used for non-forest use.

#### Hence Statement 1 is correct.

Non-forest use includes clearing of any forest land for the cultivation of tea, coffee, species, rubber, palms etc.

Hence Statement 2 is incorrect.

#### Q.62) Consider the following statements regarding The Indian Forest Act, 1927:

- 1. State Government may constitute any waste-land as a reserve forest despite the private ownership of land.
- 2. The control of all rivers and their banks as regards the floating of timber is vested in the State Government.

#### 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

#### Q.62) Solution (b)

The State Government may constitute any forest-land or waste-land which is the property of Government, or over which the Government has proprietary rights, or to the whole or any part of the forest-produce of which the Government is entitled, a reserved forest in the manner hereinafter provided.

#### Hence Statement 1 is incorrect.

The control of all rivers and their banks as regards the floating of timber, as well as the control of all timber and other forest-produce in transit by land or water, is vested in the State Government, and it may make rules to regulate the transit of all timber and other forest-produce.

Hence Statement 2 is correct.

## Q.63) Consider the following statements regarding The Environment (Protection) Act, 1986:

- 1. The Central Government under this Act has the power to direct the closure of any Industry.
- 2. No civil court shall have jurisdiction to entertain any suit in respect of any order or issued by any officer in pursuance of any power conferred by this Act.

#### 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

#### Q.63) Solution (c)

The Central Government under this Act has the power to direct the closure, prohibition or regulation of any industry, operation or process.

#### Hence Statement 1 is correct.

No civil court shall have jurisdiction to entertain any suit or proceeding in respect of anything done, action taken or order or direction issued by the Central Government or any other authority or officer in pursuance of any power conferred by or in relation to its or his functions under this Act.

Hence Statement 2 is correct.

## Q.64) Consider the following statements regarding Water (Prevention and Control of Pollution) Act, 1974:

- 1. State Government after consultation with the State Board can restrict the application of this Act only to particular areas.
- 2. State Government in certain circumstances can supersede the State Board.

#### 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

#### Q.64) Solution (c)

If the State Government, after consultation with, or on the recommendation of, the State Board, is of opinion that the provisions of this Act need not apply to the entire State, it may, by notification in the Official Gazette, restrict the application of this Act to such area or areas as may be declared therein as water pollution, prevention and control area or areas and thereupon the provisions of this Act shall apply only to such area or areas.

#### Hence Statement 1 is correct.

If at any time the State Government is of opinion that circumstances exist which render it necessary in the public interest so to do, the State Government may, by notification in the Official Gazette, supersede the State Board for such period, not exceeding one year, as may be specified in the notification.

Hence Statement 2 is correct.

#### Q.65) Consider the following statements:

- 1. No person shall, without the previous consent of the State Board, establish or operate any industrial plant in an air pollution control area.
- 2. Where an offence under this Act has been committed by a company, every person who, at the time the offence was committed, was directly in charge of, and was responsible to the company for the conduct of the business of the company shall be deemed to be guilty of the offence.

#### 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

#### Q.65) Solution (c)

No person shall, without the previous consent of the State Board, establish or operate any industrial plant in an air pollution control area.

#### Hence Statement 1 is correct.

Where an offence under this Act has been committed by a company, every person who, at the time the offence was committed, was directly in charge of, and was responsible to the company for the conduct of the business of the company, as well as the company, shall be deemed to be guilty of the offence and shall be liable to be proceeded against and punished accordingly.

Hence Statement 2 is correct.

#### Q.66) Consider the following statements with respect to National Green Tribunal (NGT):

- 1. The tribunal has Original as well as Appellate jurisdiction
- 2. It is not bound by procedure laid down under the Civil Procedure Code, 1908, but guided by the principles of Natural Justice.

#### Which of the above statements is/are correct?

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

#### Q.66) Solution (c)

The tribunal has Original as well as Appellate jurisdiction

#### **Hence Statement 1 is correct**

It is not bound by procedure laid down under the Civil Procedure Code, 1908, but guided by the principles of Natural Justice.

Hence Statement 2 is correct

#### Q.67) Consider the following statements:

- 1. The rules of Eco- Sensitive Zones are declared under Wildlife Protection Act, 1972
- 2. Flying over protected areas in an aircraft or hot air balloon is prohibited
- 3. Felling of trees and Rainwater harvesting are regulated around ESZ

#### Which of the statements given above is/are NOT CORRECT?

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

#### Q.67) Solution (b)

ESZs are based on the rules of Environment Protection Act, 1986

#### Hence Statement 1 is incorrect

It also prohibits tourism activities like flying over protected areas in an aircraft or hot air balloon, and discharge of effluents and solid waste in natural water bodies or terrestrial areas.

#### Hence Statement 2 is correct

Rainwater harvesting is permitted in ESZs

Hence Statement 3 is incorrect

#### Q.68) Consider the following statements about Basel Convention:

- 1. It is an international treaty that was designed to reduce the movements of hazardous waste between nations.
- 2. It specifically focuses on to prevent transfer of hazardous waste from developed to less developed countries (LDCs).
- 3. It also addresses the movement of radioactive waste between different nations.

#### Which of the statements given above is/are correct?

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

#### Q.68) Solution (a)

Basel Convention is an international treaty that was designed to reduce the movements of hazardous waste between nations.

#### Hence Statement 1 is correct

It specifically focuses on to prevent transfer of hazardous waste from developed to less developed countries (LDCs).

#### **Hence Statement 2 is correct**

It does not, however, address the movement of radioactive waste.

#### **Hence Statement 3 is incorrect**

## Q.69) The Energy Conservation Building Code (ECBC) was developed by an Expert Committee, set up by India's Bureau of Energy Efficiency. It provides design norms for which of the following?

- 1. Building envelope, including thermal performance requirements for walls, roofs, and windows.
- 2. Lighting system, including daylighting, and lamps and luminaire performance requirements.
- 3. HVAC system, including energy performance of chillers and air distribution systems.
- 4. Water heating and pumping systems, including requirements for solar hot-water systems.

#### Select the correct answer using the code given below.

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

#### Q.69) Solution (d)

The ECBC provides design norms for:

- Building envelope, including thermal performance requirements for walls, roofs, and windows;
- Lighting system, including daylighting, and lamps and luminaire performance requirements;
- HVAC system, including energy performance of chillers and air distribution systems;
- Electrical system; and

 Water heating and pumping systems, including requirements for solar hot-water systems.

## Q.70) Consider the following statements about Convention on Long-Range Transboundary Air Pollution, often abbreviated as Air Pollution or CLRTAP.

- 1. It is implemented by UNEP.
- 2. India is party to this convention.

#### Which of the above statements is/are correct?

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

#### Q.70) Solution (d)

The Convention on Long-Range Transboundary Air Pollution, often abbreviated as Air Pollution or CLRTAP, is intended to protect the human environment against air pollution and to gradually reduce and prevent air pollution, including long-range transboundary air pollution.

It is implemented by the European Monitoring and Evaluation Programme (EMEP), directed by the United Nations Economic Commission for Europe (UNECE).

#### **Hence Statement 1 is incorrect**

India is not signatory to this convention.

#### Hence Statement 2 is incorrect

#### Q.71) Consider the following statements:

- The Cartagena Protocol on Biosafety to the Convention on Biological Diversity aims
  to ensure the safe handling, transport and use of living modified organisms (LMOs)
  that may have adverse effects on biological diversity.
- 2. The Nagoya Protocol is an international agreement which aims at sharing the benefits arising from the utilization of genetic resources in a fair and equitable way.

#### Which of the statements given above is/are NOT CORRECT?

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

#### Q.71) Solution (d)

The Cartagena Protocol on Biosafety to the Convention on Biological Diversity is an international agreement which aims to ensure the safe handling, transport and use of living modified organisms (LMOs) resulting from modern biotechnology that may have adverse effects on biological diversity.

#### Hence Statement 1 is correct.

The Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization to the Convention on Biological Diversity is an

international agreement which aims at sharing the benefits arising from the utilization of genetic resources in a fair and equitable way.

Hence Statement 2 is correct.

#### Q.72) Consider the following statements regarding UNFCCC:

- 1. The UNFCCC is the parent treaty of the 1997 Kyoto Protocol.
- 2. The UNFCCC secretariat is part of the United Nations.

#### Which of the statements given above is/are correct?

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

#### Q.72) Solution (c)

The UNFCCC is the parent treaty of the 1997 Kyoto Protocol.

#### Hence Statement 1 is correct.

The UNFCCC secretariat is part of the United Nations. Created in 1945 and guided by its founding Charter, the UN takes action on the most critical issues confronting humanity in the 21st century, such as peace and security, climate change, sustainable development and human rights, among others.

Hence Statement 2 is correct.

## Q.73) Consider the following statements regarding Intergovernmental Panel on Climate Change (IPCC):

- 1. The IPCC is an organization of governments that are members of the United Nations or World Meteorological Organization(WMO).
- 2. The objective of IPCC is to mitigate the effects of climate change especially in the less developed countries.

#### Which of the statements given above is/are correct?

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

#### Q.73) Solution (a)

The Central Government under this Act has the power to direct the closure, prohibition or regulation of any industry, operation or process.

#### Hence Statement 1 is correct.

Created in 1988 by the World Meteorological Organization (WMO) and the United Nations Environment Programme (UNEP), the objective of the IPCC is to provide governments at all levels with scientific information that they can use to develop climate policies.

Hence Statement 2 is incorrect.

## Q.74) Consider the following statements regarding United Nations Environment Programme (UNEP):

1. UNEP is headquartered in Paris, France.

2. The United Nations Environment Assembly is the world's highest-level decision-making body on the environment.

## 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

#### Q.74) Solution (b)

UNEP is headquartered in Nairobi, Kenya.

## Hence Statement 1 is incorrect.

The United Nations Environment Assembly is the world's highest-level decision-making body on the environment. The Environment Assembly meets biennially to set priorities for global environmental policies and develop international environmental law.

Hence Statement 2 is correct.

## Q.75) Scientific Committee on Problems of the Environment (SCOPE)'s primary function is

- a) To advise the UN members on key environmental issues.
- b) To study the environmental impact of Scientific inventions.
- c) To develop scientific reviews of key environmental issues.
- d) All the above

#### Q.75) Solution (c)

The Scientific Committee on Problems of the Environment (SCOPE) was established by the 10th meeting of the Executive Committee of the International Council for Science (ICSU) in 1969. SCOPE's members include 38 national science academies and research councils, and 22 international scientific unions. The secretariat is located in the Netherlands.

SCOPE exists primarily to develop scientific reviews of key environmental issues around the themes of managing societal and natural resources, ecosystem processes, and biodiversity, health and environment.

#### Hence Statement c is correct

# Q.76) Consider the following statements about United Nations Convention to Combat Desertification (UNCCD).

- 1. It is the only internationally legally binding framework set up to address the problem of desertification.
- 2. The Convention is based on the principles of participation, partnership and decentralization.
- 3. The Conference of the Parties (COP) will be held biennial.

## Which of the above statements is/are correct?

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

#### Q.76) Solution (d)

It is the only internationally legally binding framework set up to address the problem of desertification.

#### Hence Statement 1 is correct

The Convention is based on the principles of participation, partnership and decentralization.

#### Hence Statement 2 is correct

The Conference of the Parties (COP) will be held biennial.

#### Hence Statement 3 is correct

# Q.77) Consider the following statements about Strategic Approach to International Chemicals Management (SAICM).

- 1. It was adopted by the First International Conference on Chemicals Management (ICCM1).
- 2. India is the member of this Multilateral Environmental Agreement.

# Which of the above statements is/are correct?

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

## Q.77) Solution (c)

Adopted by the First International Conference on Chemicals Management (ICCM1) on 6 February 2006 in Dubai, the Strategic Approach to International Chemicals Management (SAICM) is a policy framework to promote chemical safety around the world.

#### Hence Statement 1 is correct

India is the member of this Multilateral Environmental Agreement.

#### Hence Statement 2 is correct

# Q.78) Recently Kigali Agreement was in the news. Which of the following statements is/are correct regarding Kigali Agreement?

1. It is an amendment in Kyoto protocol.

2. As per the agreement, member countries are expected to reduce the manufacture and use of Hydrofluorocarbons (HFCs) by roughly 80-85% from their respective baselines, till 2045.

# 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

## Q.78) Solution (b)

Kigali agreement is an amendment to Montreal Protocol.

#### Hence Statement 1 is incorrect

As per the agreement, member countries are expected to reduce the manufacture and use of Hydrofluorocarbons (HFCs) by roughly 80-85% from their respective baselines, till 2045.

#### **Hence Statement 2 is correct**

## Q.79) Consider the following statements:

- 1. In Meeting of Parties (MoP) of Montreal Protocol at Kigali, HFCs have been included in the list of chemicals under Montreal Protocol.
- 2. HFCs are the severe Ozone depleting substances.
- 3. India has promised to completely stop the use and production of HFCs by 2025.

## Which of the above statements is/are incorrect?

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

# Q.79) Solution (b)

In Meeting of Parties (MoP) of Montreal Protocol at Kigali, HFCs have been included in the list of chemicals under Montreal Protocol.

#### Hence Statement 1 is correct

HFCs are not ODS but potent global warming substances.

#### **Hence Statement 2 is correct**

India will completely phase down of HFCs in 4 steps from 2032 onwards with cumulative reduction of 10% in 2032, 20% in 2037, 30% in 2042 and 85% in 2047

#### Hence Statement 3 is incorrect

# Q.80) Wildlife Crime Control Bureau was established in 2007 to fight the organized Wildlife crime in India. Which of the following statements regarding WCCB is/are correct?

- 1. It is a statutory body established by Amending the Wildlife (Protection) Act 1972.
- 2. It comes under the Ministry of Environment and Forest.
- 3. A Centralised Wildlife Crime data bank has been established by WCCB.

#### Select the correct answer using the code given below:

- 1. 1 and 2 only
- 2. 2 and 3 only
- 3. 1 and 3 only
- 4. 1, 2 and 3

## Q.80) Solution (d)

It is a statutory body established by Amending the Wildlife (Protection) Act 1972.

#### Hence Statement 1 is correct

It comes under the Ministry of Environment and Forest.

#### Hence Statement 2 is correct

A Centralised Wildlife Crime data bank has been established by WCCB.

#### Hence Statement 3 is correct

# Q.81) Consider the following statements regarding the International Renewable Energy Agency (IRENA):

- 1) A state should be a member of the United Nations to gain IRENA membership.
- 2) The main institutional governing body of the IRENA is the supreme Council which includes delegates only from the P5 Countries.
- 3) The Global Commission on the Geopolitics of Energy Transformation was launched by IRENA.

## Which of the statements given above is/are correct?

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

## Q.81) Solution (c)

The statute to gain IRENA membership requires that a state be a member of the United Nations.

#### Hence Statement 1 is correct

The main institutional governing body of the IRENA is the Assembly, which includes one delegate from each member state.

#### **Hence Statement 2 is incorrect**

The Global Commission on the Geopolitics of Energy Transformation was launched by IRENA.

#### **Hence Statement 3 is correct**

## Q.82) With reference to Aeroponics, Consider the following statements:

- 1. In Aeroponic system, the roots are held in a soilless growing medium, such as coco coir, over which nutrient-laden water is periodically pumped.
- 2. Aeroponic system is a closed loop system, using 95% less water than field farming and 40% less than hydroponics.

## 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

## Q.82) Solution (b)

In hydroponic system, the roots are held in a soilless growing medium, such as coco coir, over which nutrient-laden water is periodically pumped.

#### Hence Statement 1 is incorrect

Aeroponic system is a closed loop system, using 95% less water than field farming and 40% less than hydroponics.

#### Hence Statement 2 is correct

#### Q.83) Which of the following Bioremediation Technologies is/are correctly matched?

- 1) Bioventing Addition of Bacterial cultures to a contaminated medium.
- 2) Bioaugmentation Method of treating contaminated soils by drawing oxygen through the soil.
- 3) Biosparging The injection of air under pressure can enhance biological degradation.

#### Select the correct answer using the codes given below:

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

## Q.83) Solution (a)

Bioventing - Method of treating contaminated soils by drawing oxygen through the soil to stimulate microbial growth and activity.

## Hence Statement 1 is incorrect

Bioaugmentation - Addition of bacterial cultures to a contaminated medium; frequently used in bioreactors and ex situ systems.

#### Hence Statement 2 is incorrect

Biosparging - The injection of air under pressure can enhance biological degradation; usually performed in situ.

#### Hence Statement 3 is correct

# Q.84) Which of the following statements is/are NOT CORRECT regarding Development of Solar Parks and Ultra Mega Solar Power Projects Scheme?

- 1) This scheme supports only thoe States/UTs which has power deficit in setting up solar parks.
- 2) The implementing agency is of this scheme is Solar Power Park Developer (SPPD).

## 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

## Q.84) Solution (a)

The scheme envisages supporting all the States/UTs (not just the ones having power deficit) in setting up solar parks at various locations in the country with a view to create required infrastructure for setting up of solar power projects.

#### Hence Statement 1 is incorrect

The implementing agency is termed as Solar Power Park Developer (SPPD).

#### **Hence Statement 2 is correct**

# Q.85) Consider the following statements with respect to United Nations Convention to Combat Desertification (UNCCD):

- 1) It is the only internationally legally binding framework set up to address the problem of desertification.
- 2) The Convention addresses specifically the arid, semi-arid and dry sub-humid areas.
- 3) UNCCD collaborates with the Convention on Biological Diversity (CBD) and the United Nations Framework Convention on Climate Change (UNFCCC).

# Which of the statements given above is/are correct?

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

## Q.85) Solution (d)

It is the only internationally legally binding framework set up to address the problem of desertification.

#### Hence Statement 1 is correct

The Convention addresses specifically the arid, semi-arid and dry sub-humid areas, known as the drylands, where some of the most vulnerable ecosystems and peoples can be found.

## Hence Statement 2 is correct

UNCCD collaborates closely with the other two Rio Conventions; the Convention on Biological Diversity (CBD) and the United Nations Framework Convention on Climate Change (UNFCCC).

## Hence Statement 3 is correct

# Q.86) Bhopal gas tragedy has been one of the most deadliest industrial hazards in the history of India. Which of the following gas was released causing the disaster?

- a) Potassium cyanide
- b) Potassium isocyanate
- c) Methyl isocyanate
- d) Phosgene

## Q.86) Solution (c)

On 3 December 1984, the plant released 42 tonne of toxic **Methyl isocyanate (MIC) gas**, exposing more than 500,000 people to toxic gases.

# Q.87) The release of ballast water at the port is considered to be a big ecological hazard because:

- a) It increases the temperature of the coast by several degrees.
- b) It causes heavy metal poisoning.
- c) It is responsible for transporting alien species to new ecosystems.
- d) It reduces the dissolved oxygen in the ocean water.

## Q.87) Solution (c)

## **Ecological impacts of Ballast water discharged in ports**

- 1) On return to ports the vessels discharge the ballast water in the coastal waters, thus releasing many exotic species of flora and fauna in the ecosystem
- 2) Ballast water are transporting more than 10000 exotic marine species across the globe
- 3) In India ,the experts have found more than 10 invasive exotic species in the coastal waters of Kerala which are very rich in bio diversity
- 4) The increase in number of ports and expansion of port activities has aggravated the situation recently.
- 5) Can cause tremendous damage to our coastal ecosystems and lead to severe loss of biodiversity.

## Hence statement c is correct

# Q.88) The government has constituted a committee to investigate into illegal cultivation of HT cotton in four states. The HT of HT cotton stands for

- a) Hybrid transform
- b) Herbal treatment
- c) Herbicide tolerant
- d) High Tech

#### Q.88) Solution (c)

HT cotton stands for Herbicide tolerant.

The cultivation of BG-III or HT cotton has not been approved by Genetic Engineering Approval Committee (GEAC) of the Ministry of Environment.

# Q.89) Which of the following traits should a waste material show to be categorized under Hazardous waste?

- 1) Ignitability
- 2) Reactivity
- 3) Corrosivity
- 4) Toxicity

## 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.

## Q.89) Solution (d)

Characteristic of hazardous wastes are materials that are known or tested to exhibit one or more of the following four hazardous traits:

- ignitability
- reactivity
- corrosivity
- toxicity

# Q.90) Consider the following statements.

- 1) An aerosol is a suspension of fine solid particles or liquid droplets, in air or another gas.
- 2) Examples of anthropogenic aerosols are fog, dust, forest exudates and geyser steam.
- 3) Examples of natural aerosols are haze, particulate air pollutants and smoke.
- 4) Aerosol does not have any impact on cloud formations.

# Which of the above statements is/are correct?

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

## Q.90) Solution (a)

An aerosol is a suspension of fine solid particles or liquid droplets, in air or another gas. Aerosols can be natural or anthropogenic.

#### Hence Statement 1 is correct

Examples of natural aerosols are fog, dust, forest exudates and geyser steam.

#### Hence Statement 2 is incorrect

Examples of anthropogenic aerosols are haze, particulate air pollutants and smoke.

#### Hence Statement 3 is incorrect

It Impact cloud formations because water condenses on aerosol particles.

#### Hence Statement 4 is incorrect

# Q.91) Consider the following statements regarding the Indian Tsunami Early Warning System (ITEWS)

- 1. ITEWS was established by Ministry of Science and Technology.
- 2. ITEWS also provides tsunami advisories to the Indian Ocean Rim Countries.

# 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

# Q.91) Solution (b)

ITEWS was established by Ministry of Earth Sciences.

#### Hence Statement 1 is incorrect

Acting as one of the Regional Tsunami Advisory service Providers (RTSPs) for the Indian Ocean Region, ITEWS also provides tsunami advisories to the Indian Ocean rim countries.

#### **Hence Statement 2 is correct**

# Q.92) Which of the following statements is/are *NOT CORRECT* regarding National Disaster Management Authority (NDMA)?

- 1. NDMA logo consists of the Map of India, embossed in gold.
- 2. NDMA is headed by the Director General of National Disaster Response Force.

## 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

#### Q.92) Solution (b)

The Apex Body for Disaster Management in India is the National Disaster Management Authority (NDMA).

NDMA Logo: The Map of India, embossed in gold, in the middle of the logo, circumscribed by the National Tricolor of Saffron, White and Green represents the aspiration to contain the potential threat of natural and man-made disasters through Capacity Development of all stakeholders. The outer circle is a Golden Ring of Partnership of all Stakeholders, whose hand holding is an expression of their solidarity to supplement the efforts of the Government. NDMA in the inner circle in tranquil Blue integrates the entire process by empowering all stakeholders at the local, district, state and national levels.

#### Hence Statement 1 is correct

National Disaster Management Authority (NDMA) is **headed by the Prime Minister**, and State Disaster Management Authorities (SDMAs) is headed by respective **Chief Ministers**.

#### Hence Statement 2 is incorrect

# Q.93) With reference to Sendai Framework for Disaster Risk Reduction, Consider the following statements:

- 1. Sendai Framework was adopted at the First UN World Conference on Disaster Risk Reduction in Sendai, Japan.
- 2. United Nations Office for Disaster Risk Reduction is tasked to support the implementation, follow-up and review of the Sendai Framework.

## 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

## Q.93) Solution (b)

The Sendai Framework is the successor instrument to the Hyogo Framework for Action (HFA).

Sendai Framework was adopted at the Third UN World Conference on Disaster Risk Reduction in Sendai, Japan.

#### Hence Statement 1 is incorrect

United Nations Office for Disaster Risk Reduction is tasked to support the implementation, follow-up and review of the Sendai Framework.

#### Hence Statement 2 is correct

# Q.94) Consider the following statements with respect to the International Search and Rescue Advisory Group (INSARAG):

- 1. INSARAG is a network of disaster-prone and disaster-responding countries and organizations.
- 2. INSARAG deals with urban search and rescue (USAR) related issues.
- 3. Membership to the INSARAG is open only for the OECD Countries.

# Which of the statements given above is/are correct?

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

# Q.94) Solution (b)

INSARAG is a network of disaster-prone and disaster-responding countries and organizations.

#### Hence Statement 1 is correct

INSARAG deals with urban search and rescue (USAR) related issues.

#### Hence Statement 2 is correct

Membership with INSARAG is open to all countries and/or organizations involved in Urban Search and Rescue (USAR) activities.

#### Hence Statement 3 is incorrect

# Q.95) Consider the following statements:

- 1. Carbon sequestration can be defined as the capture and secure storage of carbon that would otherwise be emitted to or remain in the atmosphere.
- 2. Geological sequestration refers to the storage of CO2 underground in depleted oil and gas reservoirs, saline formations, or deep, un-minable coal beds.
- 3. Fertilizing the ocean with Urea to encourage Phytoplankton growth will help in removing Carbon Dioxide from the atmosphere.

## Which of the statements given above is/are correct?

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

## Q.95) Solution (d)

Carbon sequestration can be defined as the capture and secure storage of carbon that would otherwise be emitted to or remain in the atmosphere.

#### Hence Statement 1 is correct

Geological sequestration refers to the storage of CO2 underground in depleted oil and gas reservoirs, saline formations, or deep, un-minable coal beds.

#### **Hence Statement 2 is correct**

Fertilizing the ocean with Urea to encourage Phytoplankton growth will help in removing Carbon Dioxide from the atmosphere.

#### **Hence Statement 3 is correct**

# Q.96) If a large amount of organic waste is dumped in a lake, its Biochemical oxygen demand will:

- a) Decrease
- b) *Increase*
- c) Remains unchanged
- d) Can increase or decrease

## Q.96) Solution (b)

Biochemical oxygen demand is the amount of dissolved oxygen needed by aerobic biological organisms to break down organic material present in a given water sample at certain temperature over a specific time period. .

With increase in organic waste the requirement of oxygen by the microbes to decompose it will also increase.

#### **Hence Option b is correct**

# Q.97) Consider the following statements regarding World Sustainable Development Summit (WSDS):

1. It is organized by The Energy and Resources Institute (TERI).

2. The Sustainable Development Leadership Award felicitates the efforts of global leaders in the field of sustainable development.

# 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

## Q.97) Solution (c)

It is organized by The Energy and Resources Institute (TERI).

#### Hence Statement 1 is correct

The Sustainable Development Leadership Award felicitates the efforts of global leaders in the field of sustainable development.

#### Hence Statement 2 is correct

# Q.98) Global Environment Facility provides grants for projects related to:

- 1. Climate change
- 2. Ozone layer
- 3. International waters
- 4. Land degradation
- 5. Persistent Organic Pollutants

## Select the correct answer using the codes given below:

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

## Q.98) Solution (d)

GEF provides grants for projects related to biodiversity, climate change, international waters, land degradation, the ozone layer, and persistent organic pollutants.

The Global Environment Facility (GEF) unites 183 countries in partnership with international institutions, civil society organizations (CSOs), and the private sector to address global environmental issues while supporting national sustainable development initiatives. Today the GEF is the largest public funder of projects to improve the global environment.

# Q.99) With respect to Sustainable Development Goals (SDGs), Consider the following statements.

- 1. These are also known as "Transforming our World: the 2030 Agenda for Sustainable Development".
- 2. At the Central Government level, NITI Aayog has been assigned the role of overseeing the implementation of SDGs in the country.

## 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

## Q.99) Solution (c)

These are also known as "Transforming our World: the 2030 Agenda for Sustainable Development".

#### **Hence Statement 1 is correct**

At the Central Government level, NITI Aayog has been assigned the role of overseeing the implementation of SDGs in the country.

## Hence Statement 2 is correct

## Q.100) 'State of World's Forests' Report is published by

- a) World Wildlife Fund (WWF)
- b) United Nations Environment Programme (UNEP)
- c) Food and Agricultural Organization (FAO)
- d) World Bank

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

State of World's Forests' Report is published by Food and Agricultural Organization (FAO)

#### Hence Option c is correct

# Q.101) Which of the following statements is/are correct regarding National Biodiversity Authority (NBA)?

1. The Biodiversity Management Committees (BMCs) are responsible for advising the State Governments for promoting conservation, sustainable use and documentation of biological diversity.

- 2. Chairperson of the NBA shall be appointed by the President.
- 3. The salaries and allowances payable to the members of NBA shall be defrayed out of the Consolidated Fund of India.

## Select the correct answer using the code given below:

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

## Q.101) Solution (a)

**The State Biodiversity Boards (SBBs)** are responsible for advising the State Governments for promoting conservation, sustainable use and documentation of biological diversity.

#### **Hence Statement 1 is incorrect**

Chairperson of the NBA shall be appointed by the **Central Government**.

#### **Hence Statement 2 is incorrect**

The salaries and allowances payable to the members of NBA shall be defrayed out of the Consolidated Fund of India.

#### Hence Statement 3 is correct

# Q.102) With respect to The Paris Agreement, consider the following statements:

- 1. The Paris Agreement is the first truly global commitment to fight the climate crisis.
- 2. The main aim is to keep global temperature rise this century well below 2 degrees Celsius above pre-industrial levels.
- 3. India is a signatory to the agreement but not ratified it.

#### Which of the statements given above is/are correct?

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

## Q.102) Solution (b)

The Paris Agreement is the first truly global commitment to fight the climate crisis.

#### Hence Statement 1 is correct

The Paris Agreement's central aim is to strengthen the global response to the threat of climate change by keeping a global temperature rise this century well below 2 degrees Celsius above pre-industrial levels and to pursue efforts to limit the temperature increase even further to 1.5 degrees Celsius.

#### Hence Statement 2 is correct

India has signed and ratified the agreement.

#### Hence Statement 3 is incorrect

# Q.103) Which of the following measures is/are covered under India's National Action Plan on Climate Change (NAPCC)?

- 1. Prevent melting of the Himalayan glaciers
- 2. 20% improvement in water use efficiency
- 3. Waste management and recycling
- 4. Quantitative and qualitative improvement in livestock production

## Select the correct answer using the code given below:

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

#### Q.103) Solution (b)

National Action Plan on Climate Change (NAPCC) comprises eight missions in specific areas of Solar Energy, Energy Efficiency, Water, Agriculture, Himalayan Ecosystem, Sustainable Habitat, Green India and Strategic Knowledge on Climate Change.

## Hence option 4 is NOT INCLUDED in NAPCC

**National Mission for Sustaining the Himalayan Ecosystem:** This particular mission sets the goal to prevent melting of the Himalayan glaciers and to protect biodiversity in the Himalayan region.

**National Water Mission:** The NAPCC sets a goal of a 20% improvement in water use efficiency through pricing and other measures to deal with water scarcity as a result of climate change.

**National Mission on Sustainable Habitat:** The NAPCC also emphasizes on waste management and recycling.

## Q.104) Consider the following statements regarding the Nagoya Protocol:

1. The Nagoya Protocol is the supplementary agreement to the Convention on Biological Diversity (CBD).

2. The Nagoya Protocol will create greater legal certainty and transparency only for the users of genetic resources.

## 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

## Q.104) Solution (a)

The Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization (ABS) to the Convention on Biological Diversity is a supplementary agreement to the Convention on Biological Diversity.

#### Hence Statement 1 is correct

The Nagoya Protocol will create greater legal certainty and transparency for both providers and users of genetic resources by:

- Establishing more predictable conditions for access to genetic resources.
- Helping to ensure benefit-sharing when genetic resources leave the country providing the genetic resources

#### **Hence Statement 2 is incorrect**

# Q.105) Which of the following statements is/are correct regarding United Nations Framework Convention on Climate Change?

- 1. Preventing dangerous human interference with the climate system is the ultimate aim of the UNFCCC.
- 2. Industrialized countries are called Annex I countries and belong to the Organization for Economic Cooperation and Development (OECD).
- 3. Developing countries (Non-Annex I Parties) have to report regularly on their climate change policies and measures.

## Select the correct answer using the code given below:

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

#### Q.105) Solution (b)

Preventing dangerous human interference with the climate system is the ultimate aim of the UNFCCC.

#### Hence Statement 1 is correct

Annex I countries and belong to the Organization for Economic Cooperation and Development (OECD).

## Hence Statement 2 is correct

Industrialized countries (Annex I) have to report regularly on their climate change policies and measures, including issues governed by the Kyoto Protocol (for countries which have ratified it).

#### Hence Statement 3 is incorrect

Q.106) Which of the following Indian wetlands of International importance is/are included in the Montreux Record:

- 1. Chilika Lake
- 2. Loktak Late
- 3. Keoladeo National Park
- 4. Wular Lake

Select the correct answer using the code given below:

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

## Q.106) Solution (c)

Indian wetlands of International importance included in the Montreux Record are

- Keoladeo National Park, Rajasthan
- Loktak Lake, Manipur

Chilika Lake was removed from the .register in 2002 in light of the improved conditions of the lake. In fact, Chilika lake is the first Ramsar site in Asia to be removed from the Montreux record.

Q.107) Mangroves for the Future (MFF) is a unique partner-led initiative to promote investment in coastal ecosystem conservation for sustainable development. It is developed by

- a) IUCN and UNDP
- b) IUCN and WWF
- c) UNESCO and IUCN
- d) UNEP and IUCN

# Q.107) Solution (a)

IUCN (International Union for Conservation of Nature) and the United Nations Development Programme (UNDP) developed Mangroves for the Future in 2006.

Hence option a is correct.

# Q.108) Which of the following is/are the man-made Ramsar sites of India?

- 1. Ropar wetland
- 2. Harike reservoir
- 3. Bhoj Wetland
- 4. Ashtamudi

Select the correct answer using the code given below.

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

## Q.108) Solution (c)

Ashtamudi is a natural backwater in Kollam district in Kerala. Rest are manmade reservoirs.

## Q.109) Consider the following:

- 1. Durban Declaration and Program of Action
- 2. Cancum Agreement
- 3. Copenhagen Accord
- 4. Bali Action Plan

Which of the above includes commitments to reduce greenhouse gas emissions?

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

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

# Q.109) Solution (c)

**Durban Declaration and Programme of Action**- The DDPA reasserts the principles of equality and non-discrimination as core human rights, thus transforming victims of discrimination into rights-holders and States into duty bearers.

**Bali Action Plan**- The Bali Action Plan did not introduce binding commitments to reduce greenhouse gas emissions but included the request for developed countries to contribute to the mitigation of global warming in the context of sustainable development. In addition, the Bali Action Plan envisaged enhanced actions on adaptation, technology development and on the provision financial resources, as well as measures against deforestation.

**Cancum Agreement:** The agreements, reached on December 11 in Cancun, Mexico, at the 2010 United Nations Climate Change Conference represent key steps forward in capturing plans to reduce greenhouse gas emissions and to help developing nations protect themselves from climate impacts and build their own sustainable futures.

The Copenhagen Agreement is a document that delegates at the 15th session of the Conference of Parties (COP 15) to the United Nations Framework Convention on Climate Change.

## Q.110) According to "United Nations Convention on The Law of Seas (UNCLOS)"

- 1. Territorial waters are up to 12 nautical miles.
- 2. Contiguous Zone is up to 200 nautical miles from the shore.
- 3. The coastal nation has sole exploitation rights over all natural resources in Exclusive Economic Zones (EEZ).

#### Which of the statements given above is/are NOT CORRECT?

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

#### Q.110) Solution (a)

Territorial waters are up to 12 nautical miles.

## Hence Statement 1 is correct

The contiguous zone extends up to 24 nautical miles from the shore. In a contiguous zone coastal nations can exercise their rights in four areas: customs, taxation, immigration and pollution.

#### Hence Statement 2 is incorrect

In Exclusive Economic Zone (EEZ), which extends up to 200 nautical mile, the coastal nations have exclusive right to exploit the resources. International vessels are free to cross these waters without any restriction

#### Hence Statement 3 is correct

# Q.111) Which of the following statements is/are correct regarding CITES (the Convention on International Trade in Endangered Species of Wild Fauna and Flora)?

- 1. It is administered by the United Nations Environment Programme (UNEP).
- 2. CITES is legally binding on state parties to the convention.
- 3. Trade in Species of Apendix 1 of the CITES is completely prohibited.

## Select the correct answer using the code given below:

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

## Q.111) Solution (b)

It is administered by the United Nations Environment Programme (UNEP).

#### Hence Statement 1 is correct

CITES is legally binding on state parties to the convention, which are obliged to adopt their own domestic legislation to implement its goals.

#### Hence Statement 2 is correct

Appendix I: It lists species that are in danger of extinction. It prohibits commercial trade of these plants and animals except in extraordinary situations for scientific or educational reasons.

#### Hence Statement 3 is incorrect

## Q.112) Which of the following publishes the Climate Change Performance Index (CCPI)?

- a) Germanwatch and the New Climate Institute
- b) European Environment Agency (EEA)
- c) United Nations Framework Convention on Climate Change (UNFCCC)
- d) World Economic Forum

#### Q.112) Solution (a)

The CCPI is an independent monitoring tool of countries' climate protection performance published by **Germanwatch**, the New Climate Institute and the Climate Action Network.

Hence option a is correct.

#### Q.113) Consider the following statements:

- 1. In the colonial era, the procedure for settlement of rights was provided under the Indian Forest Act, 1927.
- 2. The Forest Rights Act, 2006 deals with the rights of the communities that dwell in the forests.
- 3. The Forest Rights Act, 2006 fails to address the individual rights of the tribal and marginal communities.

# Which of the statements given above is/are correct?

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

## Q.113) Solution (b)

In the colonial era procedure for settlement of rights was provided under statutes such as the Indian Forest Act, 1927.

#### Hence Statement 1 is correct

The Forest Rights Act or the Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, deals with the rights of the communities that dwell in the forests also known as Scheduled Tribes, over land and other resources, which have been denied to them over the years.

#### Hence Statement 2 is correct

Individual rights of the tribal and marginal communities have been highlighted in the Forest Rights Act along with other rights too.

#### Hence Statement 3 is incorrect

#### Q.114) Consider the following statements regarding the Cartagena Protocol:

- 1. The Protocol seeks to protect biological diversity from the potential risks posed by living modified organisms resulting from modern biotechnology.
- 2. The Cartagena Protocol is the supplementary agreement to the Convention on Biological Diversity (CBD).

## Which of the statements given above is/are NOT CORRECT?

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

## Q.114) Solution (d)

The Cartagena Protocol on Biosafety to the Convention on Biological Diversity is an international treaty governing the movements of living modified organisms (LMOs) resulting from modern biotechnology from one country to another.

#### **Hence Statement 1 is correct**

The Cartagena Protocol is the supplementary agreement to the Convention on Biological Diversity (CBD).

#### Hence Statement 2 is correct

# Q.115) Consider the following statement with respect to Alliance of Small Island States (AOSIS):

- 1. AOSIS is a coalition of 44 Small Island and low-lying coastal developing states.
- 2. The main aim is to consolidate the voice of Small Island Developing States to address their status of recognition in Multilateral Forums such as IMF, WTO.
- 3. To achieve its goals, AOSIS draws partnerships with the United Nations Development Programme (UNDP) and the European Commission.

## Which of the statements given above is/are correct?

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

## Q.155) Solution (c)

AOSIS is a coalition of 44 Small Island and low-lying coastal developing states including five observers.

#### Hence Statement 1 is correct

The main aim is to consolidate the voice of Small Island Developing States **to address global** warming.

#### **Hence Statement 2 is incorrect**

To achieve its goals, AOSIS draws partnerships with the United Nations Development Programme (UNDP) and the European Commission.

#### Hence Statement 3 is correct

# Q.116) Which of the following is *NOT CORRECT* regarding various criteria for selecting a Ramsar Site?

- a) If the site is representative, rare, or unique example of a natural or near-natural wetland type found within the appropriate biogeographic region.
- b) If it supports vulnerable, endangered, or critically endangered species or threatened ecological communities.
- c) If it supports plant and/or animal species at a critical stage in their life cycles, or provides refuge during adverse conditions.
- d) If it regularly supports 2,00,000 or more water-birds.

## Q.116) Solution (d)

If it regularly supports 20,000 or more water-birds

Hence option d is not a criterion.

# Q.117) Convention on Biological Diversity entered into force in December 1993. Which of the following were the objectives of CBD?

- 1. Conservation of Biological Diversity
- 2. Sustainable use of the components of Biological Diversity
- 3. The fair and equitable sharing of the benefits arising out of the utilization of genetic resources

# Select the correct answer using the code given below:

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

#### **Q.117) Solution (d)**

Conservation of Biological Diversity

#### Hence Statement 1 is correct

Sustainable use of the components of Biological Diversity

#### Hence Statement 2 is correct

The fair and equitable sharing of the benefits arising out of the utilization of genetic resources

#### Hence Statement 3 is correct

# Q.118) Consider the following statements:

- 1. World heritage Convention is under the aegis of UNESCO
- 2. Wild Life wing of the Ministry of Environment and Forests is associated with the conservation of the Natural World Heritage sites.

# 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

#### Q.118) Solution (c)

World heritage Convention is under the aegis of UNESCO.

#### Hence Statement 1 is correct

Wild Life wing of the Ministry of Environment and Forests is associated with the conservation of the Natural World Heritage sites.

#### Hence Statement 2 is correct

Q.119) Biosphere reserves are demarcated into 3 inter-related zones called Core zones, Buffer Zones and Transition Zone. A core zone being National Park or Sanctuary is regulated under which of the following acts?

- a) Environmental Protection Act, 1986
- b) Wildlife Protection Act, 1972
- c) Biodiversity Act, 2002
- d) The Forest (Conservation) Act, 1980

## Q.119) Solution (b)

A core zone being National Park or Sanctuary is regulated under Wildlife Protection Act, 1972.

#### Hence option b is correct

# Q.120) With reference to biodiversity conservation, Forest PLUS is:

- a) a bilateral program between India and Nepal to enhance conservation efforts for the forests in the Himalayas.
- b) a bilateral program between India and the U.S. to develop solutions for sustainable forest land use in India.
- c) a program of UNFCCC to reduce emissions from deforestation and forest degradation.
- d) None of the above.

## Q.120) Solution (b)

Forest-PLUS is a bilateral program between India and the U.S. to develop solutions for sustainable forest land use in India. The program is in partnership with the Ministry of Environment, Forest and Climate Change (MoEFCC).

## Hence statement b is correct