Ecosystem MCQs corrected file-

**Que 1. Which of the following is not an abiotic component of the Ecosystem?**  
**A. Energy**  
**B. Temperature**  
**C. Bacteria and fungi**  
**D. Rainfall**  
**Answer: C**

* The Abiotic components of the Ecosystem include **energy** (Essential for life), **Rainfall** (All the Biochemical reactions take place in an aqueous medium), **Temperature** (It influences the survival of living organisms as they tolerate a certain range of temperature).
* **Bacteria and fungi** are osmotrophs that come under biotic components. Biotic components also include primary producers like Green plant and certain bacteria and algae that are autotrophs.

**Q2: The forest is a sub-type of which ecosystem?**  
**A. Natural Ecosystem**  
**B. Man-made Ecosystem**  
**C. Aquatic Ecosystem**  
**D. Terrestrial Ecosystem**  
**Answer: D**  
Ecosystem are classified mainly on two types-

**Natural Ecosystem include-**  
1.  Terrestrial Ecosystem - Forest, Grassland, Deserts.   
2.  Aquatic Ecosystem - Fresh water, Saline water, and marine water.

**Artificial Ecosystem include-**

These are man made ecosystem that include crop, urban, industrial, laboratory and space ecosystem.

**Q3: Which of the following is a Biotic component of the Ecosystem?**  
A. Autotrophs  
B. Carnivorous  
C. Energy  
D. Atmosphere  
**Answer: A**  
The Biotic components of an ecosystem are **primary Producers or Autotrophs** (Green Plants and certain bacteria and algae) and Consumers or Heterotrophs (Macro consumers are herbivores, carnivores, omnivores & Micro like Saprotrophs or osmotrophs like bacteria & fungi).

Carnivorous are the flesh eating animals.

Energy and Atmosphere are the Abiotic component of an ecosystem.

**Q4: Which of the following component of the Ecosystem influences the survival of Living organisms up to a certain range?**  
**A. Latitude**  
**B. Temperature**  
**C. Bacteria and fungi**  
**D. Rainfall**  
**Answer: B**  
The Abiotic components of the Ecosystem include-

* Rainfall in which all the Biochemical reactions take place in an aqueous medium),
* **Temperature that influences the survival of the living organisms as they tolerate a certain range of temperature** and after that their adaptability is lost to absolve in the environment due to rise in temperature after a certain level.
* Latitude & Altitude influence the areas temperature resulting in climates such as polar tropical.

Bacteria and fungi are osmotrophs that come under biotic components. Biotic components also include primary producers like Green plant and certain bacteria and algae that are autotrophs.

**Q5: Which term defines the ability of an ecosystem to sustain equilibrium through self-regulation of its functional processes?**  
**A. Ecosystem**  
**B. Homeostasis**  
**C. Ecotone**  
**D. Biome**  
**Answer: B**

* Homeostasis is the ability of an ecosystem to sustain equilibrium through self-regulation of its functional processes.
* Ecosystem is the communities of living things in any particular area and their physical surrounding.
* Ecotone is a point where two or more different ecosystems converge.
* Biome is the terrestrial portion of Biosphere which is split up into large regions and distinguished by its climate.

**Q6: Which of the following is known as a Zone of Tension?**  
**A. Ecosystem**  
**B. Niche**  
**C. Ecotone**  
**D. Biosphere**  
**Answer: C**

* Ecotone is either quite wide or quite thin. It is also known as Zone of Tension or transition as conditions between two nearby ecosystems are present in it(zone of tension).
* Niche is a species particular functional role or position within an ecosystem. No two species have precisely the same no of inches in this.
* Ecotone is a point where two or more different ecosystems converge.
* Biosphere is the region on earth where life present. Sun is the source of the energy needed for life in the Biosphere.

**Q7: Which term defines “It is a species' particular functional role or position within an ecosystem”?**  
**A. Ecotone**  
**B. Ecology**  
**C. Ecological Niche**  
**D. Edge effect**  
**Answer: C**

* **Ecological Niche:** It is a species' particular functional role or position within an ecosystem. No two species have precisely the same number of inches in this.  
  Ecotone is a point where two or more different ecosystems converge.
* Edge effect- In some communities there are more animals and people per square mile than in other ones. This is known as Edge effect and its best example is Birds as they are susceptible to the edge effect in terrestrial ecosystem.
* Niche is a specie's particular functional role or position within an ecosystem. No two species have precisely the same no of inches in this.

**Q8: Which of the following species is susceptible to the edge effect in the Terrestrial Ecosystem?**  
**A. Birds**  
**B. Algae**  
**C. Bacteria and fungi**  
**D. Plankton**  
**Answer: A**

* In some communities, there are more animals and people per square mile than in other ones. This is known as the Edge Effect. Example: Birds are particularly susceptible to the edge effect in terrestrial ecosystems.
* Bacteria and fungi are osmotrophs that come under biotic components. Biotic components also include primary producers like Green plant and certain bacteria and algae that are autotrophs.
* Plankton are the organism exists in marine and freshwater Ecosystem because they are non-motile or too small or weak. They don't have much energy to swim against the flow of current,.
* Algae are aquatic, photosynthetic, nucleus-bearing organisms that lack the true roots, stems, leaves, and specialised multicellular reproductive structures of plants.

**Q9: Which of the following is not an Ecosystem, include in Biome?**  
**A. Aquatic Ecosystem**  
**B. Freshwater Ecosystem**  
**C. Marine Ecosystem**  
**D. Estuaries**  
**Answer: A**

* Biomes do not include aquatic zones or Ecosystems because the producers in many aquatic systems are single-celled algae that do not form "vegetation" with a distinct structure, defining aquatic biomes based on vegetation would be impossible.
* It comprises freshwater ecosystems, such as lakes, creeks, ponds, swamps, and rivers. Marine Ecosystem has salinity up to 35 ppt (90 percent sodium chloride); Estuaries, coral reefs, and mangroves are more productive than nearby rivers or seas (ecotone).

**Q10: Which of the following is not a Freshwater Ecosystem?**  
**A. Lotic Ecosystem**  
**B. Lentic Ecosystem**  
**C. Wetland Ecosystem**  
**D. Aquatic Ecosystem**  
**Answer: D**  
**Freshwater ecosystem:**  
• Lotic (moving like a river) ecosystem includes freshwater streams, springs, etc.  
• Lentic (stagnant like a pond) ecosystem includes pools etc. In this ecosystem, salinity is less than 5 ppt.  
• Wetlands ecosystems are intermediate ecosystems between terrestrial & water habitats (floodplains, littoral, etc). It is a land area that is saturated with water, either permanently or seasonally.

**Q11: Freshwater streams are a type of which Ecosystem?**  
**A. Aquatic**  
**B. Lotic**  
**C. Lentic**  
**D. Desert**  
**Answer: B**  
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Aquatic Ecosystem include Fresh water, Saline water, and marine water Ecosytem. It is a part of Natural Ecosystem.

**Q12: Oceans refer to which Ecosystem?**  
**A. Marine Ecosystem**  
**B. Terrestrial Ecosystem**  
**C. Natural Ecosystem**  
**D. Estuaries Ecosystem**  
**Answer: A**  
**Marine Ecosystem include oceans.** Oceans cover almost 3/4 of the surface of the Earth. Both the ocean and the coastal ecosystems are included in this ecosystem. Salinity in this habitat is more than 35 ppt (90 percent Sodium chloride).  
• Estuaries are part of it (Coastal bays, river mouths, and tidal marshes forms estuaries).

Ecosystem is mainly divided into two parts

1. Natural Ecosystem include-Terrestrial Ecosystem - Forest, Grassland, Deserts and Aquatic Ecosystem that include fresh water, saline water and marine water ecosystem.   
2. Artificial Ecosystem that are crops, urban, industrial, laboratory, space ecosystem.

**Q13: Which of the following does not form an Estuary?**  
**A. Coastal Bays**  
**B. River mouths**  
**C. Tidal marshes**  
**D. Ponds**  
**Answer: D**

* Oceans cover almost 3/4 of the surface of the Earth. Both the ocean and the coastal ecosystems are included in this ecosystem. Salinity in this habitat is more than 35 ppt (90 percent Sodium chloride). Estuaries are part of it and Coastal bays, river mouths, and tidal marshes forms estuaries.
* A pond ecosystem is a freshwater ecosystem that can be temporary or permanent and consists of a diverse range of aquatic plants and animals interacting with one another and the surrounding aquatic conditions.

**Q14: Lichens, Willows, and Birches are the flora of which type of vegetation?**  
**A. Tundra**  
**B. Taiga**  
**C. Deciduous**  
**D. Tropical evergreen forest**  
**Answer: A**

* Tundra include-  
  • Flora- Willows, birches and lichens  
  • Fauna- Reindeer, Musk, Ox, Lemmings, Squirrel
* Taiga include- evergreen plants like spruce, fir, pine etc.
* Deciduous forest include- Teak, shal, Sheesham, Mahua, Hurry etc.
* Tropical evergreen forests include- Flora- Roosewood, Mahagani, Aini, Ebony etc.

**Q15: Rosewood, Mahogany, and Ebony are which types of vegetation?**  
**A. Tropical  Evergreen forest**  
**B. Tundra forest**  
**C. Taiga forest**  
**D. Thorn forest**  
**Answer: A**

* Tundra include-  
  • Flora- Willows, birches and lichens  
  • Fauna- Reindeer, Musk, Ox, Lemmings, Squirrel
* Taiga include- evergreen plants like spruce, fir, pine etc.
* Thorn forest include- flora like Babool, Ber, wild, date palm, khair, neem etc.
* Tropical evergreen forests include-  Flora- Rosewood, Mahogany, and Ebony.

**Q16: The Grassland ecosystems of Europe and Asia are known by which of the following?**  
**A. Steppes**  
**B. Veld**  
**C. Pampas**  
**D. Downs**  
**Answer: A**  
About 10 to 25 percent of the Earth's surface is made up of the grassland ecosystem. In various parts of the world, these are known by many names, including steppes in Europe and Asia, pampas in South America, Veldt in South Africa, and Downs in Australia.