

## Topic :- Ecosystem

- A functional aspect of an ecosystem is
  - Productivity and decompositions
  - Energy flow and nutrient cycling
  - Both (a) and (b)
  - None of the above
- Consider the following statements
  - In a food chain one organism holds only one position
  - In a food chain the flow of energy can be easily calculated
  - In food chain competition is limited to the members of same trophic levelWhich of the statements given above are correct?
  - I, II and III
  - I and II
  - I and III
  - II and III
- What is the percentage of Photosynthetically Active Radiation (PAR), if incident solar radiation is considered 100%?
  - 100%
  - 1-6%
  - 2-20%
  - 50%
- Choose the wrong pair.
  - Salvadora* – Desert
  - Cenchrus* – Savanna
  - Abies* – Coniferous forest
  - Tectona* – Temperate forest
- Which is an example of true pyramid in an ecosystem?
  - Pyramid of a biomass
  - Pyramid of number
  - Pyramid of energy
  - None of the above
- The minimum number of components required for an ecosystem to survive
  - Producer and primary consumer
  - Producer and decomposer
  - Primary consumer and decomposer
  - Primary and secondary consumer
- The 10% energy transfer law of food chain was given by
  - Lederberg
  - Lindemann
  - Weismann
  - Lindley
- In plant succession, when climax community is reached, the net productivity
  - Continues to increase
  - Becomes zero
  - Becomes reduced
  - Becomes stable
- In plant succession, when climax is reached, the net productivity
  - Continues to increase
  - Becomes halved
  - Becomes stable
  - Becomes zero

10. The transition zone between two communities is known as  
a) Ecotone                      b) Keystone species                      c) Edge effect                      d) Critical link species
11. Primary productivity is  
a) The rate of formation of new organic matter by consumers  
b) The rate of conversion of light into chemical energy in an ecosystem  
c) The rate of energy production per unit area over a time period during photosynthesis  
d) None of the above
12. In food chain, maximum energy is stored in  
a) Producer                                      b) Primary consumer  
c) Secondary consumer                      d) Decomposer
13. Consider the following statements about pyramid of biomass  
I. When we plot the biomass (net dry weight) of producers, herbivores, carnivores and so on we have a pyramid of biomass  
II. Two types of pyramid of biomass are found, *i.e.*, upright and inverted  
III. When larger weight of producers support a smaller of biomass weight of consumers an upright pyramid results  
IV. When smaller weight of producers support larger weight of consumers an inverted pyramid of biomass is formed  
Which of the statements given above are correct?  
a) I, II and III                      b) I, III and IV                      c) II, III and IV                      d) I, II, III and IV
14. The final stable community in ecological succession is  
a) Pioneers                      b) Sere                      c) Climax                      d) Carnivores
15. In what order do a hawk, grass and rabbit form a food chain in a meadow?  
a) Hawk → grass → rabbit                      b) Grass → hawk → rabbit  
c) Rabbit → grass → hawk                      d) Grass → rabbit → hawk
16. Pond is defined as a  
a) Biome                      b) Agroecosystems                      c) Natural ecosystem                      d) Community
17. What is the amount of carbon fixed in biosphere through photosynthesis annually?  
a)  $4 \times 10^{13}$ kg                      b)  $5 \times 10^{13}$ kg                      c)  $4 \times 10^{16}$ kg                      d)  $5 \times 10^{16}$ kg
18. Find out the correct order of succession levels in xerarch.  
a) Lichen, moss stage, annual herb stage, perennial herb stage, scrub stage, forest  
b) Annual herb stage, perennial herb stage, lichen, moss stage, scrub stage, forest  
c) Perennial herb stage, annual herb stage, lichen, moss stage, scrub stage, forest  
d) Scrub stage, forest, annual herb stage, perennial herb stage, lichen, moss stage

19. Niche is defined as the
- a) Position of species in a community in relation to other species
  - b) Place where organism lives
  - c) Place where organism lives and performs its duty
  - d) Place where population perform their duties
20. In the phosphorus cycle, weathering makes phosphate available first to
- a) Producers
  - b) Decomposers
  - c) Consumers
  - d) None of these

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