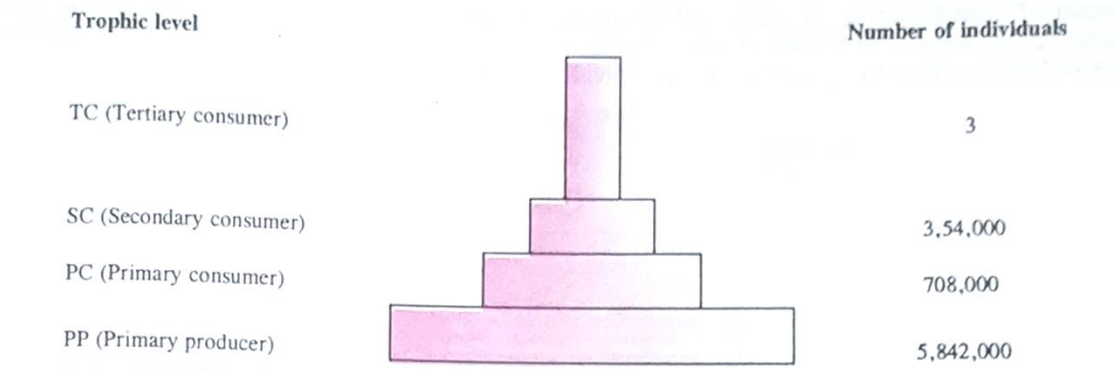
**CLASS-12**
**Subject-BIOLOGY**
**Chapter- ECOSYSTEM**

**ANSWER KEY**

1. Ecosystem is defined as the interaction of abiotic and biotic factors forming a stable structure. The term is coined by A.G.Tansley. Example- Pond ecosystem.

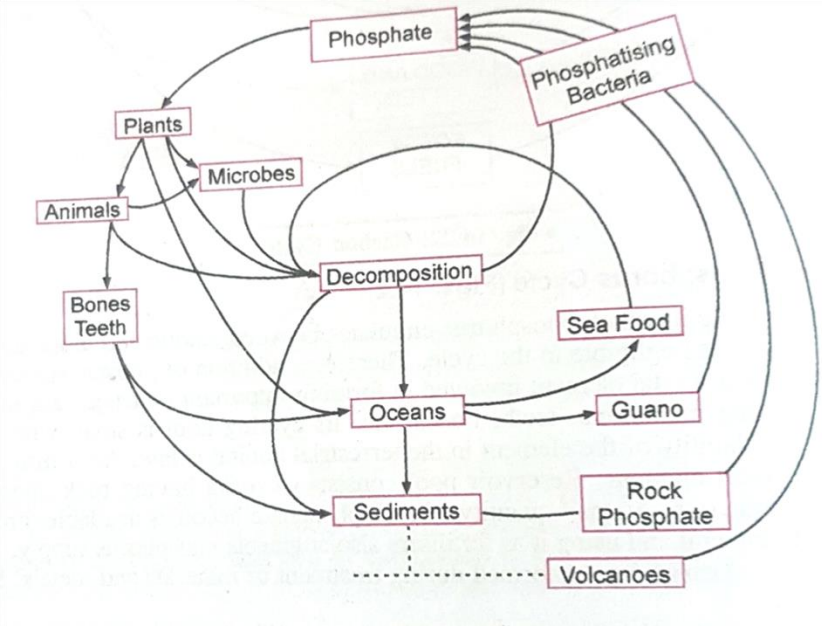
2.




A pyramid of numbers in a grassland ecosystem. Only three top carnivores are supported in an ecosystem based on production of nearly 6 millions plants.

3. Grazing food chain starts with producers and terminates into decomposers which acts on top carnivores. In detritus food chain the decomposers form the 1st trophic level and it ends with a scavenger.

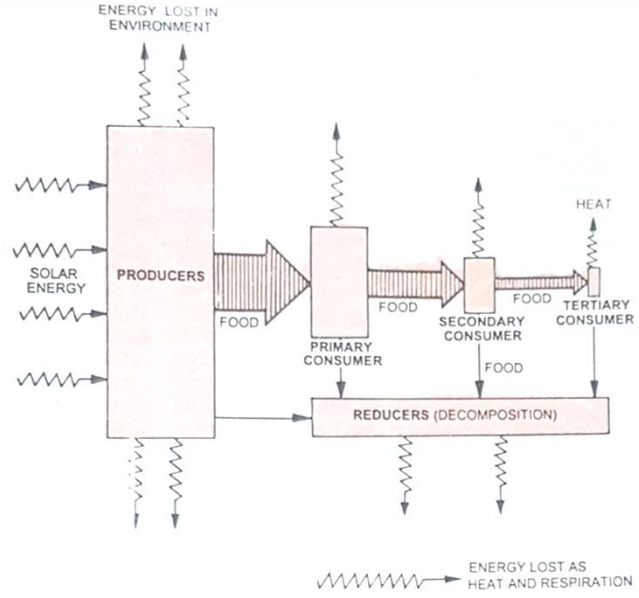
4. PHOSPHORUS cycle is referred to as the sedimentary cycle of matter.




5. Earthworm acts on detritus in the form of litter so it's a detrivore.

**LONG ANSWER TYPE**

**1.**



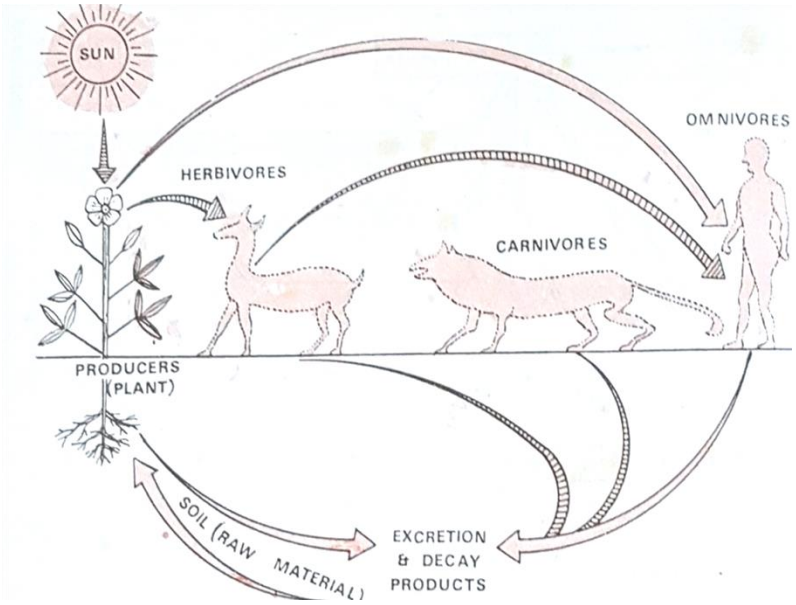

ENERGY FLOW IN AN ECOSYSTEM

2. Ecological services are natural phenomenon or processes which help in modifying the ecosystem and maintaining it by checking the composition of biotic and abiotic factors. They are of –
    a) CARBON FIXATION- the percentage of carbon is maintained by trees acting as carbon sink which fixes it, in addition the marine or freshwater ecosystem too

checks the level of carbon. The fixing of carbon is a way of maintaining the global surface and mean temperature.

b) POLLINATION- both self and cross pollination is a way of propagating the flora of an ecosystem. Pollination with the help of agents help in transferring the plants to far places causing increase in biodiversity and often stabilizing the ecosystem.
c) DISPERSAL OF SEED- fruits dispersed with the help of agents help in propagation of species and maintain the gene pool. It is also useful in allowing plants having a better chance of survival. It too helps in stabilizing the ecosystem.
d) OXYGEN RELEASE- The green plants release oxygen through the process of photosynthesis which replenishes the oxygen of the ecosystem which is used up by burning, metabolic processes like respiration etc. this allows for the level of oxygen to remain almost constant, creating balance between abiotic and biotic components of ecosystem.

3.




INTERRELATIONSHIP BETWEEN COMPONENTS OF ECOSYSTEM