MASTERS PRE-UNIVERSITY COLLEGE, HASSAN 573201.

Subject: BIOLOGY

Ecosystem

1. Which of the following is a man made artificial ecosystem?
   1. Grassland ecosystem
   2. Agro ecosystem
   3. Ecosystem of artificial lakes and dams
   4. Forest ecosystem
2. Grasshopper in grassland is a
   1. producer (b) herbivore

(c) carnivore (d) scavenger

1. In an ecosystem the function of the producers is
   1. to convert organic compound into inorganic form
   2. to utilize chemical energy
   3. to trap solar energy and convert into chemical energy
   4. to release energy
2. The driving force for an ecosystem is
   1. biomass
   2. producers
   3. carbohydrates in producers
   4. solar energy
3. In a food chain herbivores are
   1. primary producers
   2. primary consumers
   3. secondary consumers
   4. decomposers
4. Which one of the following is nature's cleaner ?
   1. consumers
   2. producers
   3. decomposers and scavengers

(d) symbionts

1. Humus is good for plant growth because
   1. it improves physical condition of soil
   2. it makes soil porous
   3. it increases water holding & aeration of soil
   4. all
2. Tropical dense forest is due to
   1. low rainfall & low temperature
   2. high rainfall & low temperature
   3. low rainfall & high temperature
   4. all
3. Biological equilibrium is found among the
   1. producer plants
   2. consumers and producers
   3. decomposers
   4. producers, consumers and decomposers
4. The correct path of energy flow in an ecosystem is
   1. Produers CarnivoresHerbivores

Decomposers

* 1. Producers Herbivores Carnivores

Decomposers

* 1. Herbivores Carnivores Producers

Decomposers

* 1. Herbivores Producers Carnivores

Decomposers

1. The first link in any food chain is always a green plant because
   1. they are widely distributed
   2. they are firmly fixed to the soil
   3. they alone have a capacityto fix atmospheric CO2 in the presence of sunlight
   4. all of the above
2. Pyramid of numbers in a grassland/true ecosystem is
   1. always inverted (b) always upright

(c) both (a) and (b) (d) spindle-shaped

1. Food chain in which micro-organisms breakdown the food formed by primary producers is
   1. parasitic food chain
   2. detritus food chain
   3. consumer food chain
   4. predator food chain
2. Pick up the correct food chain
   1. Grass Chameleon Insect Bird
   2. Grass Fox Rabbit Bird
   3. Phytoplankton Zooplankton Fish
   4. Fallen leaves Bacteria Insect larvae
3. Pyramid of numbers deals with number of
   1. species in an area
   2. individuals in a community
   3. individuals in a trophic-level
   4. subspecies in a community
4. If we completely remove the decomposers from an ecosystem, its functioning will be adversely affected, because
   1. energy flow will be blocked
   2. herbivores will not receive solar energy
   3. mineral movement will be blocked
   4. rate of decomposition will be very high
5. The primary succession refers to the development of communities on a
   1. fleshly cleared crop field
   2. forest clearing after devastating fire
   3. pond, freshly filled with water after a dry phase
   4. newly-exposed habitat with no record of earlier vegetation
6. In a food chain, the largest population is that of
   1. decomposers
   2. producers
   3. primary consumers
   4. tertiary consumers
7. The rate at which light energy is converted to the chemical energy of organic molecules is the ecosystem’s
   1. net primary productivity
   2. gross primary productivity
   3. net secondary productivity
   4. gross secondary productivity
8. Upper part of sea/aquatic ecosystem contains
   1. plankton
   2. nekton
   3. plankton and nekton
   4. benthos
9. What is true about ecosystem?
   1. Primary consumers are least dependent upon producers
   2. Primary consumers out-number producers
   3. Producers are more than primary consumers
   4. Secondary consumers are the largest and most powerful
10. The greatest biomass of autotrophs in the oceans is that of
    1. sea grasses and slime moulds
    2. free floating microalgae, cyanobacteria and nanoplankton
    3. benthic brown algae,coastal red algae and diatoms
    4. benthic diatoms and marine viruses
11. Consider the following statements concerning food chains
12. removal of 80% tigers from an area resulted in greatly increased growth of vegetation
13. removal of most of the carnivores resulted in an increased population of deers
14. the length of food chains is generally limited to 3-4 trophic levels due to energy loss
15. the length of food chains may vary from 2 to 8 trophic levels

Which two of the above statement are correct ?

1. ii and iii (b) iii and iv
2. i and iv (d) i and ii
3. Which one of the following statements for pyramid of energy is incorrect, whereas the remaining three are correct ?
   1. Its base is broad
   2. It shows energy content of different trophic level organisms
   3. It is inverted in shape
   4. It is upright in shape
4. The resource which regulates the flow of energy in desert ecosystem is the availability of
   1. light (b) water

(c) minerals (d) heat

1. Food chain is a series of population which starts with producers. It is concerning with
   1. biotic components only
   2. energy flow and transfer of nutrients
   3. both (a) and (b)
   4. biotic and decomposers
2. The natural cycles of carbon, oxygen, nitrogen, water, phosphorus, sulphur etc. are collectively called as
   1. chemical cycles
   2. geological cycles
   3. material cycles
   4. none of the above
3. Which one of the following statement is correct?
   1. Warm and moist environment favour decomposition whereas low temperature and anaerobiosis inhibit decomposition.
   2. Warm and moist environment inhibit decomposition whereas low temperature and anaerobiosis favour decomposition.
   3. Warm and anaerobiosis favour decomposition whereas low temperature favours decomposition.
   4. Warm and low temperature inhibit decomposition whereas anaerobiosis favours decomposition.
4. Match the following and choose the correct option.

Column - I Column - II

1. Standing state I. Nitrogen, Carbon
2. Gaseous cycles II. Amount of nutrients
3. Standing crop III. Sulphur, Phosphorus
4. Sedimentary cycles IV. Living matter at different trophic levels

1. A– II, B – I, C – IV, D – III
2. A – I, B – II, C – III, D – IV
3. A– III, B – II, C – IV, D – I
4. A– I, B – IV, C – III, D – II

 