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FOR GOD AND COUNTRY

ST. LAWRENCE HIGH SCHOOL

ANSWERS

Subject – Life Science **Class - VIII** **F.M.-80**

SECTION -A

I. Choose the correct option :- **1x10=10**

1. Root hairs are outgrowths of the

a) Lenticels b) epiblema

c) stomata d) cuticle

Ans. : b) Epiblema

2. Pollen grains are formed in the

a) anther b) pistil

c) style d) filament

Ans : Anther

3. The gas that protects us from ultraviolet radiation is .

a) nitrogen b) carbon dioxide

c) sulphur dioxide d) ozone

Ans. : Ozone

4. Blue Green algae are

a) Producers b) Primary consumers

c) Secondary Consumars d) apex predators

ans: Producers

5. Which tree is found in a tropical rainforest ?

a) Pine b) Ebony

c) Indian Plum d) Maple

Ans : Ebony

II. Write true or false for the following statements : (1x5=5)

1. A lion and a dear are ecologically related through Symbiosis.

   Ans : False.

2. Carrot is a Rhizome.

   Ans :

3. Transpiration is aaffected by temperature.

   Ans : True

4. Phosphorus is a macro nutrient.

   Ans True

II. Fill in the blanks : **(1x5=5)**

1. The embryo is protected within the uternus by **amniotic** fluid.
2. **Bast fibres** provide mechanical strength to the phloem.
3. A cell will shrink if placed in a **hypertonic** solution.
4. yeast cells produce small outgrouths called _____
5. Herbivoures are the **primary consumers** consumers of an ecosystem.

GROUP – B

III. Short Answer Questions : **(2x5)**

1. What is diffusion ? Give 1 example of the process of diffurion in plants.

Ans. : Diffusion : A process in which particles of a substance move from an area highly concentration to an are a of longer concentratin until they are evernly distributed.

Eg. : Plant absorts some dissolved minerals passively through their roots by diffusion.

2. What is entomophily ? Give 1 example.

Ans. : Entomophiliy – Insect pollinatin is known as entomophitiy.

Eg. : Jasmine, Sunflower, Fig, Rafflesia (Lany 1 eg)

3. What is active transport ?

Active Transpart – The process, by which minerals enter the root even if their conuntration is highte inside the root than in the soil. This process requires energy by plants to expend.

4. Name two tyres of aquatic and terrestrial ecosystems.

Ans. : Two types of qquatic ecosystems (i) fresh water (ii) Marine eco systems.

Terrestrial ecosystem – grassland, forest, mountain, desert. Any 2

5. What is predation ? Give one example .

Ans : Predation – the relation in which one organism kill and eats another animals that hunt, kill, eat ahor animasl are called predators

Eg. Snakes, bigers, eaglu sharks.

III. Answer the following briefly : (any 5) **(3x5)**

1. Write 3 differences between biome and biosphere ?

Ans. : **Biome**

1) Several connected ecosystms in alarge area of land or sea together form a biome.

2) Iach biome dofined by climate and soil of the region and is inhabited by plants, crimals

3) Eg desert is a bione.

Biosphere

a) All bionmes together forms biosphere

b) The parts of earth's atmosphere, hydrosphere, lithosphere together forms biosphere.

c) E.g. sum total of all ecosystem forms biosphere.

2. What is pollination? How does self pollination differ from cross pollinatin.

Ans : Pollination – the transfer of pollen grains from the anther to thestigma is called pollination.

Self Pollination :

1. When ollen is transferred from antoher to the stigma of same flower or of flowers borne by same plant is self pollination

2. Self pollination may occur in flowers in which the anthers and sigma mature at same time.

3. eg Wheat. Oat, peach.

Cross polliratin

1. Whom pollen is transferred to the stigmas of flowers of ther plants of the same species it is called cross pollination.

2. Cross pollination occurs in flowers in which the antohers and stigma mature at different times.

3. Eg. Apple, prim rose.

3. How does transpirator help plants lany 3?

Ans. : Mimportance of transpiration –

(1) It helps plants et rid of unsused water.

(2) As transpritation takes place rapidly during the day, the leaves start running short of wate and a condition creates a force of auction called transpiration pull.

(3) It helps concentrate the cytoplasm of plant cell, which helps in osmosis.

4. What do you understand by a food chain ? Draw one simple food chain.

Ans. : Food Chain – A series of organisom linked with each other through the process of eating and being eaten forms a food chain.

5. What is layering ? Give 2 examples on which it propagates.

Ans. : Layering – It is a method of vegetative propagation in which a portion of one of the lowest branches of the plant is bent domnnmards so that it touches the soil. A ring of brak is removed from the portion, which is then covered with soil.

This method is used with plants like lemon, rose jasmine.

6. How does osmosis differ from diffnation ?

Ans. : **Osmosis**

1) Inosmosis, water moves across a semi permeable membrane from an area of highter concentration of molecules to one where therer are less concentratom.

2) Water passes from the soil into the root hairs.

Diffusion

1) process in which particles of a substance move from an area of higher concentrative to an area of layer concentratove until pley are evenly distibutors.

2) If helps in gaseous exechange too unit the atmosphere.

7. How does a food web differ form food chain ?

Ans. : Three gruups of biotic components.

a) Producers – Green plants as they manufacture food for all animals, plant ands micro organisum. As they does not depend on others they ae also called autotrophs.

b) Consumers – An animals non-green plants, microorganms which depend upon producers are called consumers.

c) Decomposers – These are micro organisoms and worms that live in the soil they break down orgainic matter and drawn nutrition from it.

GROUP – C

IV. Long Answer Question :- **(any 8)**

1. What is a pyramid of numbers? Why does the number of organisions usually decorase at each trophic level ?

Ans. Pyramid of numbers – A pyramid of numbers is arepresentation of the numbers of organisms at different trophic levels of a food chain. It shown produces at base, with various consumers arranged successively up mards.

A fraction of the energy is lost at each trophic level of a fodd chain. Thus, consumers at each level msut eat a large amount of food to obtain enough energy. This is whay the number of organism at each trophic level is mare than the number of organisms at the next lavel.

2. Explain 5 advantages of vegetative reproduction ?

Ans.: 5 advantages of vegetative reproduction .

a) It is responsible for continuation jof plant species that cannot produced viable seeds eg banana

b) A plant capable of this can summe unfavourable condition.

c) Such plants attain maturity eartier thant those produce from seeds.

d) As features and qualities of offspring are identical to thise of parent, Megetatre propeg aton can be sues to cultivate plants like Dahlia,etc.

e) Plants can tbe grown from subaerial and aerial parts.

3. Draw a diagram and describe the types of cells fround in xylem tissues.

Ans. :

4. What are the different types of symbiosis ? Explain with 2 example.

Ans : Symbiosis 3typs. (1) Para sitems (2) Muluatism (3) Commensatism.

Eg. (i) some types of wasps lay thire eggs in the body of other insects. The parasitic lorvae hatch and grow inside the host, drawing nutrition from the host and eventually killing it.

(ii) Rhitobium live within the roots fo leguminous plants and form nodules. These bacten a convert nitrogen present in the air into ammonia, which is convertd into amino acids by plant cells. In return, bacteraobtain nutrition from plants eg. Lichens and alga.

5. Explain how transpiration occurs. What are the factors that affect transpiration ?

Ans. : Transprition :-

Factors which affect transpiration

1) Light
2) availability of soil water.
3) Prsence of moisture, humidity of the atmosphere.
4) Tempruature.
5) e atmosphere pressure.

6. What are the major differences between asexual and sexual reproduction ?

7. Draw the parts of flower showing the pollination process .

8. What role do producrs and decomposes play ?

9. Draw the longitudinal seetion of ovary and explan the process of fertililation in plants .

10. Why is a tropical deciduous forest called a monsoon forest ? Describe its chanacteristic features (any 3)

Ans. : Tropical deciduous forest – These forest recoi less rainfall than the rain forests and have a wet season in which include they receive the maximum rainfall. So these forest are called monsoon forests.

Charcecterstres:

1) They have deciduous broad leaved trees that sheed their leaves dury dry secason.
2) Teak, Seal, Sandalamood.
3) these ae situated at highter altitndes than rainforest.
4) Tiger, deer, elephants are their habitat.