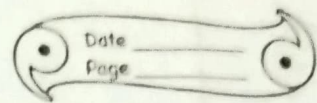


H.W  
19/10/21

# WORKSHEET



## SECTION - A

1. The number of modes by which animals reproduce are

Ans- a) two

2. Asexual reproduction is

Ans- c) sponge

3. The main function of guard cells is to help with

Ans- a) Transpiration

4. Transpiration is regulated by the movements of

Ans- guard cells

5. Ecosystem has two components

Ans- biotic and abiotic

SECTION - B (Very short Questions)

6. Which chromosome does the unfertilised egg contain?

Ans. One X Chromosome contains the unfertilised egg.

7. Which hormone balances the proportion of salts in the blood?

Ans. Aldosterone hormone balances the proportion of salts in the blood.

8. What do you mean by reproductive health?

Ans. Reproductive health is defined as a state of physical, mental and social well-being of a person in all matters relating to the reproductive system at all stages of life.

9. Which hormone is released by pancreas?  
What is its function?

Ans- Insulin and Glucagon is released by pancreas.

Function of:

\* Insulin - It regulates the amount of sugar in the blood.

\* Glucagon - It releases sugar from the liver.

10. What is artificial ecosystem?

Ans- An artificial ecosystem <sup>is</sup> a human-made system of plants, animals and people living in an area together with their surrounding.

11. Differentiate between food chain and food web.

Ans.

\*

The sequence of transfer of matter and energy in the form of food from organism to organism.

Food Chain

Food web

\* A food web is a series of organisms that eat one another so that energy and nutrients flow from one to the next.

12. What are ecological pyramids?

Ans- An ecological pyramid is a graphical representation designed to show the biomass or bio-productivity at each trophic level in a given ecosystem.

13. Name two plants which reproduce through spores.

Ans- Ferns and mosses are the two plants which reproduce through spores.

14. Why is regeneration considered a method of reproduction?

Ans- Regeneration is considered a method of reproduction because it is the ability of an organism to give rise to new individual organisms from their body parts.

15. Which vegetative part is used in the propagation of Bryophyllum and ~~mint~~ mint?

Ans-

Leaves is used in the propagation of Bryophyllum and mint.

### SECTION - C (Short Questions)

16. A mother is angry at her child for misbehaving. The child is also afraid. Which hormones would be released in both their bodies? What will be the effect of the hormone?

Ans

A mother is angry at her child for misbehaving. The child is also afraid. Adrenaline hormone would be released in both their bodies.

17. a) Which organ is responsible for implantation of zygote?

Ans — Progesterone organ is responsible for implantation of zygote.

b) State the function of fallopian tubes?

Ans — The main function of fallopian tube is to collect the ovum from ovaries and provide passage to the fertilized ovum to reach the uterus for implantation.

18. What would be the ratio of chromosome number between egg and its zygote?

Ans — 1:2 would be the ratio of chromosome number ~~of~~ between egg and its zygote.

19. How does the embryo developing inside its mother's womb obtain its nutrition?

Ans.

The embryo grows inside the mother's womb and gets nourishment from the mother's blood through the tissue called the placenta. The placenta is a temporary organ ~~that~~ that connects the developing fetus to the uterine cavity of the mother via the umbilical.

20. What changes are observed in the uterus subsequent to implantation of young embryo?

Ans.

Following changes take place in the uterus after implantation of the young embryo: Uterine lining thickens to support the developing embryo. The uterine lining is richly supplied with blood vessels so that nutrition and oxygen



could be supplied to the developing spores.

21. Why are budding, fragmentation and regeneration all considered as asexual types of reproduction? With neat diagram explain the process of regeneration in Planaria.

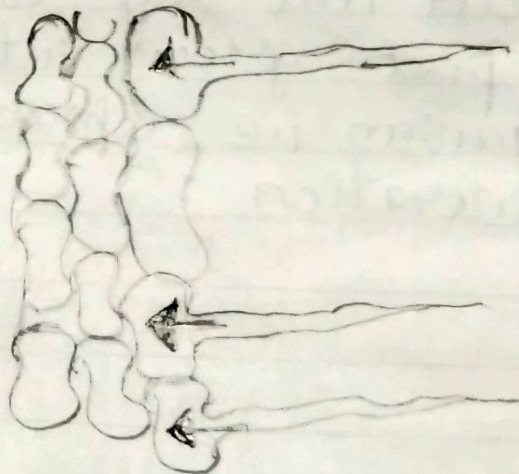
Ans — Budding, Regeneration and fragmentation are considered as asexual types of reproduction because none of them includes gamete formation and fertilisation. All of these give to offspring from single parent only.

Regeneration of Planaria it exhibits regeneration i.e. ability to grow the broken body part again. If the body of Planaria is cut into any number of pieces, each piece grows into a complete organism i.e. reproduction through regeneration.

## REGENERATION OF PLANARIA

22. ~~Given~~ here is ~~an~~ <sup>an</sup> enlarged Given here is an enlarged diagram of a part of the rect. Draw arrows on the diagram to show the movement of water passing through different parts.

Ans-



23. Why plasma membrane is called semipermeable membrane?

Ans- Plasma membrane is called semipermeable membrane because semipermeable membrane allows only selective materials or substances to pass through it.

24. What are the factors affecting the rate of diffusion?

Ans- The different factors affecting the rate of diffusion are,

\* The medium through which a substance is diffusing.

\* The size of the molecules diffusing.

\* The temperature of the solution.

## SECTION - D

25. Explain the term reproductive health.  
What should we do to maintain reproductive health?

Ans - \* Reproductive health refers to the conditions of male and female reproductive systems during all life stages.

\* These systems are made of organs and hormone-producing glands, including the pituitary gland in the brain.

\* They also function as glands because they produce and release hormones.

We should maintain reproductive health by

- \* Eat a variety of nutrient rich foods
- \* eat moderate portions
- \* Do not ~~skip~~ skip meals
- \* Do not eliminate certain foods

\* Drink water

\* Avoid too much caffeine

26. What is 'Vegetative propagation'? Write two examples where it is used. State two reasons of practicing vegetative propagation for giving same types of plants.

Ans-

Vegetative Propagation: The process by which a new plant can be produced by certain parts of a plant such as the leaf, stem and root and that these vegetative parts that are capable of giving rise to ~~the~~ a new plant that is called vegetative propagation.

Two ~~are~~ examples where it is used are  
(i) reproduction by stem - Ginger

(ii) reproduction by leaf - Bryophyllum

Two reasons of practicing vegetative propagation for giving same types of plants are

- \* Reproduction by vegetative parts takes place in a shorter time.
- \* New plants, thus produced, spread very fast in a small area.

27. Reproduction is essentially a phenomenon that is not for survival of an individual but for the stability of a species. Justify.

Ans - \* For survival, an individual needs energy which it obtains from life processes such as nutrition and respiration.

- \* Reproduction does not provide energy for ~~survival~~ survival. Instead, reproduction ensures transfer of genetic material

from one generation to the next which helps in continuation of species.

28. What is a clone? Why do offsprings formed by asexual reproduction exhibit remarkable similarity?

Ans Clone refers to offsprings of an organism formed by asexual method of reproduction. Since, they possess exact copies of the DNA of their parent, clones exhibit remarkable similarity.

29. Briefly explain, how transpiration helps in upward conduction of water in plants?

Ans - a) Plants continuously absorb their water through their leaves. This water is distributed to all parts of the plant including the leaves. Only a little amount of water is retained in the plant or utilised by it during photosynthesis. The rest of it gets evaporated into the atmosphere as water vapour.

through the ~~stomach~~ stomata present in the epidermis of the plant. This creates a suction force in the xylem vessels which pulls up water from the xylem of the roots to the stem and then to the leaves.

- b) Xylem tissues are narrow in the diameter in the form of capillary tubes greater is the forces. When the xylem vessel lie empty, such as during loss of water by transpiration the water from tissue rise ~~the~~ into them by a capillary force.

During daytime water is lost from the surface of leaves by process of transpiration. In this process, more and more water molecules are pulled up due to their tendency of retaining joined.



30. What is a food chain? Write a five-step food chain found in grass land with frog as one of the members. What will happen to organisms at different trophic levels if all the frogs are removed?

Ans:- The sequence of transfer of matter and energy in the form of food from organism to organism is known as food chain.

Five-step food chain ~~including~~ including frog

Grass  $\rightarrow$  grasshopper  $\rightarrow$  frog  $\rightarrow$  Snake  $\rightarrow$  Eagle

If we remove the frog, the number of insects will increase while the number of snake will decrease. This removal or displacement will harm the food chain by disturbing its sustenance method.