**SAINIK SCHOOL GOAPLGANJ**

**SUMMER VACATION ASSIGNMENT : 2021-22**

**BIOLOGY**

**Chapter 01: Reproduction in organism Class: XII**

***General Instructions***

**…………………………………………………………………………………………………………**

*1. All questions are compulsory.*

*2. Question1 to 10 is multiple choice questions.*

*3. Question 11 to 15 is short answer questions.*

*4. Question 16 to 20 is long answer questions.*

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1. Planaria’s most remarkable characteristics are its ability to
   1. Hibernation
   2. Survive without air
   3. Generate bioluminescence
   4. Regenerate
2. Fusion of unrelated gametes is called \_\_\_\_\_\_\_\_
   1. Dichogamy
   2. Fertilization
   3. Autogamy
   4. Allogamy
3. Bryophyllum daigremontianum reproduces by
   1. Vegetative propagation
   2. Budding
   3. Fission
   4. Fragmentation
4. When living tissue from a plant is extracted and placed in a medium, it is called \_\_\_\_\_\_
   1. Horticulture
   2. Transplantation
   3. Explant
   4. None of the above
5. Budding, in hydra, is a form \_\_\_\_\_\_\_\_
   1. Apoptosis
   2. Sexual reproduction
   3. Asexual reproduction
   4. None of the above
6. \_\_\_\_\_\_\_\_\_\_\_\_is not a method of vegetative propagation
   1. Grafting
   2. Cutting
   3. Lytic cycle
   4. Layering
7. \_\_\_\_\_\_\_\_\_\_\_ refers to an asexual reproduction process wherein genetically identical copies of individual plants are produced
   1. Layering
   2. Binary fission
   3. Clonal Propagation
   4. None of the above
8. \_\_\_\_\_\_\_\_\_\_ shows totipotency.
   1. Xylem
   2. Meristem
   3. Cork
   4. All of the above
9. The property of an undifferentiated cell that has the potential to develop into an entire plant is called
   1. Budding
   2. Cloning
   3. Subpotency
   4. Totipotency
10. The development of root and shoot in tissue culture is determined by \_\_\_\_\_\_
    1. Temperature
    2. Nutrients
    3. Auxin and cytokinin ratio
    4. None of the above
11. **Why is reproduction essential for organisms?**
12. **Which is a better mode of reproduction sexual or asexual? Why?**
13. **Why is the offspring formed by asexual reproduction referred to as clone?**
14. **Offsprings formed due to sexual reproduction have better chances of survival. Why? Is this statement always true?**
15. **Distinguish between asexual and sexual reproduction. Why vegetative reproduction is also considered as a type of asexual reproduction?**
16. **Define:**  
    **(a)Juvenile phase**  
    **(b)Reproductive phase**  
    **(c)Senescent phase.**
17. **Identify each part in a flowering plant and write whether it is haploid (n) or diploid (2n).**  
    **(a)Ovary ————————**  
    **(b)Anther ————————**  
    **(c)Egg ————————**  
    **(d)Pollen ————————**  
    **(e)Male gamete ————————**  
    **(f)Zygote ————————**
18. **Why are offspring of oviparous animals at a greater risk as compared to offspring of viviparous animals?**
19. . You must have seen your mother adding 3-4 globules of yeast to the idli paste she has prepared. Similarly, brewing industry uses yeast in the manufacture of alcohol.

(a) How does such a small amount of yeast added help to produce thousands of liters of alcohol? Explain how yeast multiplies so fast.

(b) Name the process carried out by yeast in these cases.

20. In nature, i.e .in the wild birds lay eggs seasonally during a particular time of the year but in poultry farm, eggs are produced throughout the year.

(a)Give reason for this observation.

(b) Is it ethically /morally correct in your opinion? Justify your argument.