

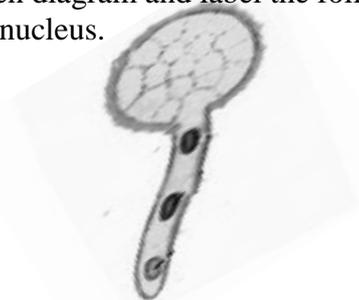
I.CHOOSE THE CORRECT ANSWER

(5 X 1 = 5)

1. Which of the following statement is true?
 - i) Thin-walled non-mobile spores are called zoospores.
 - ii) A motile asexual spore produced by some algae, bacteria and fungi are Akinetes.
 - iii) Uninucleate, non-motile, asexual spores produced by fungus are called conidia.
 - iv) Thick-walled vegetative cells produced by algae during adverse conditions are called aplanospores.
 2. If a water soaked seed is pressed, a small drop of water comes out through the _____.
 - i) stomata ii) lenticel iii) micropyle iv) radicle
 3. The mango fruit is called a stone fruit because it has _____.
 - i) skinny epicarp ii) stony mesocarp iii) fleshy endocarp iv) hard endocarp
 4. Anemophily occurs in _____.
 - i) Vallisneria ii) Grass iii) Coconut iv) Datura
 5. Which of the following is correctly matched?
 - i) False fruit – mango ii) Multiple fruit – apple iii) Aggregate fruit – polyalthia iv) Caryopsis – banana
- II. WRITE SHORT ANSWER FOR THE FOLLOWING QUESTIONS.** **(15 X 2 = 30)**
6. Write any two differences between asexual and sexual modes of reproduction.
 7. Define fertilization.
 8. Name the events (i) & (ii) and mention the nature of the nuclear structures formed at the end in the following cases:
 - (i) male gamete (n) + egg (n) = Zygote (2n)
 - (ii) male gamete (n) + secondary nucleus (2n) = Endosperm nucleus (3n).
 9. What are monocotyledons and dicotyledons? Give examples.
 10. Give any two examples for each of the following cases where dispersal of fruits and seeds take place :
 - (i) by birds (through excreta) (ii) by human beings
 11. The methods of reproduction and the organisms are given below. Match the type of reproduction with the suitable organism.

<i>Fission</i>	<i>Spirogyra</i>	<i>Yeast</i>
<i>Budding</i>	<i>Protozoans</i>	<i>Flatworms</i>
<i>Fragmentation</i>	<i>Bryophyllum</i>	<i>Bacteria</i>

12. i) Composite fruits are formed by all the flowers of _____,
 ii) _____ fruit is developed from a single flower with a multicarpellary apocarpous superior ovary.
13. Draw the given diagram and label the following parts:
 - i) Exine ii) Tube nucleus.



14. Match the following with respect to dispersal of fruits / seeds:

<i>a) Autochory</i>	<i>I) Lotus</i>
<i>b) Anemochory</i>	<i>II) Xanthium</i>
<i>c) Hydrochory</i>	<i>III) Tridax</i>
<i>d) Zoochory</i>	<i>IV) Balsam</i>

15. Use words from the given list to complete the following paragraph. (The words may be used once / more than once / not at all).

(seed, fruit, pollination, dispersal, germination, fertilization, flower, reproduction)

Ramu went to the field along with his father. He sowed mustard seeds in the soil. After a few days he observed the process of _____. The seeds grew into plants and produced _____. On maturity, these flowers produced pollen grains that were transferred to the stigma by _____. The male gametes fused with the female gametes during the process of _____.

16. Coconut seeds are dispersed by Hydrochory (dispersal by water). Mention the part of the fruit whose modification helps in this mechanism.

17. What is double fertilization?

18. What is triple fusion?

19. Differentiate dehiscent fruits and indehiscent fruits with suitable examples.

20. Name the agents of pollination in the following cases:

i) Bright coloured flowers with scent and nectar glands.

ii) No colour / scent / nectar but pollen grains are dry, light weight and powdery. Stigma is feathery.

Also mention the plants in cases (i) & (ii).

II. WRITE DETAIL ANSWER FOR THE FOLLOWING QUESTIONS.

(3 X 5 = 15)

21. Write the two events involved in the sexual reproduction of a flowering plant.

i) Discuss the first event and write the types.

ii) Mention the advantages and the disadvantages of that event.

22. i) Fruit is the product of fertilization. Is there any fruit which is formed without the act of fertilization?

ii) Represent the classification of fruits in a diagrammatic sketch.

23. Given below is a list of dry fruits. Assign the fruits to their relevant types.

(Cotton, Tridax, Paddy, Castor, Coriander, Beans, Peas, Calotropis, Mirabilis, Cashew, Acacia, Lady's finger)

i) Achene ii) Caryopsis iii) Cypsela iv) Nut v) Cremocarp vi) Lomentum vii) Regma viii) Loculicidal capsule ix) Septicidal capsule x) Follicle xi) Legume