

**(FOR THE CANDIDATES ADMITTED  
DURING THE ACADEMIC YEAR 2022 ONLY)**

**22UBY611**

**REG.NO. :**

**N.G.M.COLLEGE (AUTONOMOUS) : POLLACHI  
END-OF-SEMESTER EXAMINATIONS : MAY-2025**

**B.Sc.-BOTANY** **MAXIMUM MARKS: 50**  
**SEMESTER: VI** **TIME : 3 HOURS**

**PART - III  
PLANT PHYSIOLOGY**

**SECTION - A**

**(10 X 1 = 10 MARKS)**

**ANSWER THE FOLLOWING QUESTIONS.**

**MULTIPLE CHOICE QUESTIONS.**

**(K1)**

1. Which one is not called water absorption process?  
a) Diffusion      b) Imbibition      c) Osmosis      d) Diffraction
2. What is the other name of light reaction?  
a) Photobia      b) Photolysis      c) Photolaser      d) Photoshoot
3. Find out the correct expansion of ETS in respiration \_\_\_\_\_.  
a) Electron Transport System      b) Electron Traffic System  
c) Electron Transport Solar      d) Election Transport System
4. Choose the chemical formula for Ethylene \_\_\_\_\_.  
a)  $C_4H_4$       b)  $C_2H_4$       c)  $C_6H_4$       d)  $C_2H_6$
5. Which hormone is responsible for hydrotropism?  
a) Auxin      b) Gibberellin      c) ABA      d) Ethylene

**ANSWER THE FOLLOWING IN ONE (OR) TWO SENTENCES.**

**(K2)**

6. What is called imbibition?

7. Who proposed the light reaction in photosynthesis?
8. What is the end product of glycolysis?
9. List out any two role of ABA.
10. Define senescence.

**SECTION – B**

**(5 X 3 = 15 MARKS)**

**ANSWER EITHER (a) OR (b) IN EACH OF THE FOLLOWING QUESTIONS. (K3)**

11. a) Describe absorption of minerals in plants.  
**(OR)**  
b) Write short note on osmosis process.

**(CONTD.....2)**

12. a) List out the significance of transpiration.  
**(OR)**  
b) Justify the meaning of Photorespiration.
13. a) Summarize about aerobic respiration.  
**(OR)**  
b) Simplify notes on biosynthesis of fatty acids.
14. a) Elucidate on plant growth regulators.  
**(OR)**  
b) Describe on photoperiodism.
15. a) Write note on plant rhythms with suitable example.  
**(OR)**  
b) Explain on plant stress.

**SECTION - C****(5X 5 = 25 MARKS)****ANSWER EITHER (a) OR (b) IN EACH OF THE FOLLOWING QUESTIONS.**  
**(K4 & K5)**

16. a) Describe water potential and their components.  
**(OR)**  
b) Assess the details of Plasmolysis
17. a) Examine the stomatal mechanism with suitable diagram.  
**(OR)**  
b) List out the difference between C<sub>3</sub> and C<sub>4</sub> cycle.
18. a) Sketch the Kreb's cycle flow chart and explain it.  
**(OR)**  
b) Describe nitrogen cycle with necessary illustration.
19. a) What is called vernalization and describe it.  
**(OR)**  
b) Write an essay on physiology of Flowering.
20. a) Explain the details on methods of seed breaking dormancy.  
**(OR)**  
b) Summarize the types and mechanism of senescence.

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