

(FOR THE CANDIDATES ADMITTED

19UBY612

DURING THE ACADEMIC YEAR 2019-2022 ONLY)

REG.NO. :

N.G.M. COLLEGE (AUTONOMOUS) : POLLACHI

END-OF-SEMESTER EXAMINATIONS: JULY-2022

B.Sc.-BOTANY

MAXIMUM MARKS: 75

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. Large quantities of water absorbed by roots from the soil solution due to_____.
a. Osmosis b. Imbibition c. Diffusion d. Water potential
2. Stomata opens during day because the guard cells have_____.
a. Outer wall thin b. Kidney shape c. Chlorophyll d. Large nuclei
3. Kreb's cycle means_____.
a. Anaerobic respiration b. Aerobic respiration c. Photosynthesis d. Transpiration
4. The role of ABA in plants is_____.
a. Root elongation b. Budding c. Stomatal closure d. all the above
5. The response of the plant to cold temperature, treatment expressed in the form of flowering is called_____.
a. Vernalization b. Photoperiodism c. Stratification d. None of the above

ANSWER THE FOLLOWING IN ONE (OR) TWO SENTENCES.

(K2)

6. Define Osmosis.
7. What is Photorespiration?
8. Differentiate between aerobic and anaerobic respiration.
9. What are the growth regulators?
10. Senescence.

SECTION – B

(5 X 5 = 25 MARKS)

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

11. a) Write a short note on imbibition.
(OR)
b) Briefly explain the water potential.
- 12.a) What are the stomatal types?
(OR)
b) Write a short note on the Ascent of sap.

(CONTD.....2)

- 13.a) Give a note on nitrogen fixation in plants.
(OR)
b) Give a note on synthesis of amino acid.
- 14.a) Write short notes on fat synthesis.
(OR)
b) Briefly explain the role of Gibberellins
- 15.a) What is biological clock?
(OR)
b) Explain the seed dormancy.

SECTION - C**(4 X 10 = 40 MARKS)****ANSWER ANY FOUR OUT OF SIX QUESTIONS.****(16th QUESTION IS COMPULSORY AND ANSWER ANY THREE QUESTIONS
(FROM Qn. No : 17 to 21) (K4 (Or) K5)**

16. Explain the active and passive absorption of water by roots.
17. Write an essay on transpiration- its kind, significance and factors affecting transpiration.
18. Describe briefly Kreb's cycle.
19. Write an essay on biological nitrogen fixation.
20. Describe the role of ethylene in fruit ripening.
21. Briefly explain plant movements with suitable examples.
