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(FOR THE CANDIDATES ADMITTED
DURING THE ACADEMIC YEAR 2021 ONLY)

21UBY611

REG.NO. :

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

END-OF-SEMESTER EXAMINATIONS : MAY-2024

COURSE NAME: B.Sc.-BOTANY **MAXIMUM MARKS: 70**

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. How does cell get swell up, when placed in?
   a) Hypertonic solution b) Hypotonic solution c) Isotonic solution d) Ultrasonic solution
2. Where does transpiration in herbaceous plant occur?
   a) Stomata b) Lenticels c) Cuticle d) Hydathodes
3. The process of cell respiration is carried out by _____
   a) Mitochondria b) Chloroplast c) Nucleus d) None of the above
4. Which of the following plant hormones helps in shoot elongation?
   a) Auxin b) Gibberellic acid c) Abscisic acid d) None of the above
5. Tell the change over from vegetative to reproductive phase in plants which takes place in response to_____.
   a) Length of the day b) Severity of temperature c) Oxygen content in the air
   d) Mainly the food material available in the soil

ANSWER THE FOLLOWING IN ONE (OR) TWO SENTENCES. (K2)

6. Define osmosis.
7. Differentiate light and dark reaction.
8. Explain electron transport system.
9. Illustrate senescence.
10. Define photoperiodism.

SECTION – B (5 X 4 = 20 MARKS)

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

11. a) Examine minor nutrients in plants.

(OR)

b) Describe water potential and its components.

12.a) List the theories of ascent of sap.

(OR)

b) Examine the factors affecting transpiration.

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13.a) Describe glycolysis.

(OR)

b) Sketch the nitrogen cycle.

14.a) Examine the practical applications of ethylene.

(OR)

b) Describe abscission.

15.a) Examine vernalization.

(OR)

b) Interpret 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. Discuss the absorption of water in plants
17. Evaluate the mechanism of stomatal movements in plants
18. Summarize Calvin cycle
19. Point out the steps involved in Krebs cycle
20. Discuss the physiological importance of auxin and gibberellin
21. Examine plant movements

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