

210199150012 Sl

**B.Sc. (Forestry)-1<sup>st</sup> Semester, Examination (2019-20)**

**S-1126**

**Principles of Plant Physiology**

**Time: Three Hours**

**MM: 35**

**Section -A**

**Note:** Attempt all questions. Each question carries 1 mark.

**Fill in the blanks.**

1. In mitochondria Succinate Dehydrogenase is located in-----.
2. Sodium is generally essential as Micronutrient to Plants utilizing specifically ----- Photosynthetic Pathway.
3. Kranz anatomy is found in-----plants.
4. Mottled Chlorosis of leaves occurs due to the deficiency of-----.
5. The key enzyme for fixation of CO<sub>2</sub> in C<sub>4</sub> plants is-----.

**Write True (T) or False (F).**

6. Water holding capacity of soil differs with soil composition.
7. IBA induces seed dormancy.
8. The flowering in plants is affected by length of day and night.
9. The effect of topographic factors on plants can be best seen in temperate region.
10. Leaf senescence and abscission are strong hormonal control.

T/F  
T/F  
T/F  
T/F  
T/F

**Section -B**

**Note:** Attempt any five questions. Each question carries 2 marks.

11. What is significance of photosynthesis?
12. Discuss the C<sub>3</sub> and C<sub>4</sub> plants.
13. Write the mechanism of opening of stomata.
14. Write the short notes on:
  - (a) Plant nutrition
  - (b) ATP Synthesis
15. Define plant growth regulators with examples.
16. What is osmotic pressure?
17. Differentiate between osmosis and diffusion.

**Section -C**

**Note:** Attempt any three questions. Each question carries 5 marks.

18. What is Respiration? Write the account of various mechanism of Respiration.
19. Describe the process of light reaction in Photosynthesis.
20. What do you understand by transpiration? Explain its significance in Plant life.
21. Discuss the Krebs' cycle.
22. Describe the cold stress and mechanisms for freezing tolerance.