**Study Guide for Plant physiology exam 1**:

1. Define the physiology and the purpose of studying it.
2. Recount the following: (You are going to write it in your own in the exam)
3. Leaves layers
4. Types of ground tissue (with drawing them)
5. Types of tissue
6. Plastids
7. Types of cytoskeletal
8. Mechanisms drives the Water in the plant
9. Structure of plasma membrane (with drawing it)
10. Mitochondria and Chloroplasts (Everything related to them in the Lec. 1)
11. DNA packing with drawing the steps
12. Chromosome Structure (Draw slide 44)
13. Gene expression (Draw slide 46)
14. Define the Plasmodesmata.
15. The importance of Water in Plant Life.
16. Define turgidity- cohesion – Adhesion – diffusion – osmosis- Hypotonic- Pressure potential (You are going to write it in your own in the exam)
17. What the difference between Hypertonic and Isotonic solutions
18. The difference between the bound water and gravitational water
19. SHC varies with water content and type of soil
20. Water absorption by roots (Slide 14)
21. Pathways for water uptake by the root (Slide 15)
22. Transpiration from the leaf depends on two factors:
23. What the difference between Stomata guard cells for the monocots and dicots? (Draw required).
24. Define transpiration ratio?
25. What the difference between mineral and nutrient?
26. What does cause the absence of the essential elements in the plants?
27. Read slides for micronutrients and macronutrient and you should know some example of both?
28. There are techniques used to Hydroponic and aeroponic systems? Explain the difference between them
29. what is mobile and immobile?
30. define Hartig net **?**
31. Different areas of the root absorb different mineral Ions (Slide 35)