First: Plant Morphology & Anatomy
Answer the following questions:

1- **Compare between each of the following:**
   a) Simple and blind pits
   b) Monopodial and Sympodial Branching
   c) Chromoplasts and Leucoplasts
   d) Parenchyma and Collenchyma
   e) Monocot and Dicot Roots

2- **Write on each of the following:**
   i. Primary protective tissues
   ii. Different types of stem and root modifications
   iii. Bases of classification of meristems

Second: Plant physiology

Answer the following questions:

**First Question:**
i. Which osmotic quantity is most important in determining the directions of osmosis? Explain.
ii. In concept of the entropy term, explain the diffusion process?
iii. How can anaesthetics affect the process of permeability?

**Second question:**

a. Of what importance is potassium in the opening and closing of stomata? Explain.

b. Define the following terms: outer space and apparent free space? Describe the details of ion exchange theory for explanation of passive absorption of minerals?

c. When the transpiration is minimal, explain the mechanism that account for translocation of water in plants?

*With my best wishes*