

Name & Entry No.:

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SBL100 LABORATORY

Laboratory on Microscopy

Aim: To understand how to visualize single cells and observe their behavior in different solutions.

Methodology: (1) Operations of a light microscope. (2) Sample preparation and visualization of plant & mammalian cells.

Results: IN THE SPACE GIVEN BELOW AND/OR ON THE BACK SIDE

1. DRAW A SINGLE PLANT & A SINGLE MAMMALIAN CELL OBSERVED BY YOU. (1x2 = 2)
2. LABEL MAJOR CELLULAR FEATURES OBSERVED BY YOU. (0.5x2 = 1)
3. DRAW AN APPROXIMATE SINGLE SCALE BAR FOR THE ABOVE (E.g. 1 cm = 1 μ m). (1.5)
4. DRAW HOW PLANT CELLS RESPOND TO HYPOTONIC & HYPERTONIC SOLUTIONS. (1x2 = 2)
5. DRAW HOW MAMMALIAN CELLS RESPOND TO HYPOTONIC & HYPERTONIC SOLUTIONS. (1x2 = 2)

Conclusions: FILL IN THE INFORMATION BELOW

1. Shape of cells derived from *Homo sapiens* appeared to be _____ (0.5)
2. Shape of cells derived from *Allium cepa* appeared to be _____ (0.5)
3. Plant cells appear _____ mammalian cells in solution of different osmolarity. (0.5)
(For 1. and 2. pick one from "pleomorphic" OR "spherical" OR "rectangular")
(For 3., pick one from "equally sturdy compared to" OR "sturdier than" OR "less sturdy than")