

八十六學年度 生命科學系(所) 分生組甲 組碩士班研究生入學考試
生醫組甲
科目 細胞生物學 科號 0907 共 2 頁第 / 頁 *請在試卷【答案卷】內作答
1207

(一) 闡明下列技術或藥品的用途: (30%) (每題 2%)

1. fura 2
2. vinblastine
3. taxol
4. cytochalasin
5. phalloidin
6. laser scanning confocal microscopy
7. density gradient centrifugation
8. enzyme cytochemical labeling
9. flow cytometry
10. freeze fracturing
11. in situ hybridization
12. autoradiography
13. ELISA
14. myosin decoration
15. pulsed-chase labeling

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(二) 簡答題 (20%) (每題 5%)

1. List 5 major functions of cell membranes.
2. List various type of intercellular junctions and briefly describe their functions.
3. Depict the four levels of organization of protein structure.
4. Draw a typical animal cell showing all the intracellular compartments.

(三) 申論題 (50%) (每題 10%)

1. Depict the structure and functions of the Golgi complex.
2. Discuss the roles of cyclins in mitosis
3. Depict the formation, structure and function of the synaptonemal complex during meiotic prophase I.
4. Depict the structure, diameter, monomers and functions of three different types of cytoskeleton.
5. Discuss the roles of G proteins and cyclic AMP in signal transduction