

系所組別： 口腔醫學研究所甲組

考試科目： 生物化學

考試日期： 0307，節次： 2

※ 考生請注意：本試題 可 不可 使用計算機

1. Briefly describe the following terms. (25%)
 - a. Receptor tyrosine kinase
 - b. Frame shift mutation
 - c. Palindrome
 - d. Leucine zipper
 - e. Western blotting

2. Compare the following terms: (30%)
 - a. N-linked vs. O-linked oligosaccharides of glycoproteins
 - b. Sense vs. Antisense strand of DNA
 - c. Phosphatidylinositol 4,5-biphosphate vs. Inositol 1,4,5-triphosphate
 - d. Telomere vs. Telomerase
 - e. Amylose vs. Cellulose

3. Describe the basic principles how it is possible to identify proteins by mass spectrometry. (10%)

4. Compare the metabolites varies in the mitochondria of liver during fasting and after a meal. (10%)

5. Describe the biogenesis and function of microRNA. (10%)

6. Describe three techniques can be used to detect the expression level of genes in cells and tissues. Compare their sensitivity and resolution. (15%)