



4. 請定義何謂 promoter and enhancer (5 %), 並進一步要如何找出此基因的 enhancer 及 promoter 的位置? (5%).
5. 就目前分生知識試述 transcriptional basal initiation complex 如何在 promoter 位置形成 (10%).
6. 就目前分生知識, 試述在真核細胞中 chromatin 之 histone 及 non-histone 蛋白質如何影響基因表現 (10%).
7. Please design an expressing cassette to express the cloned gene and a simple method to facilitate the purification of expressed protein. (10%)
8. Please draw the chemical structures of adenine, adenosine and AMP. (9%)
9. Please describe the transition mutations and the transversion mutations, and give examples. (9%)
10. How do you generate Klenow fragment; and describe its biological function and potential applications? (12%)