

系所組別： 生物醫學工程學系丙、丁組

考試科目： 生物化學

考試日期：0225·節次：2

1. Urea cycle is very important in living body, and there are some key enzymes in this cycle, please describe the process in detail. (10%)
2. Describe briefly how cells synthesize polysaccharide, lipid, amino acid and nucleotide. (10%)
3. Pyruvate is a main product via glycolysis, please write three metabolite processes for pyruvate in a live cell. (10%)
4. How to play the enzyme activity of a glucose oxidase? (10%)
5. What is the difference between gram positive and gram negative bacteria they are in detail. (10%)
6. (1) How does insulin functionize on cell membrane to transport glucose into the cell? And (2) Why the DM patients can have fructose? (10%)
7. Flavin families are very important bio-compounds. Please describe their roles in our living body. (10%)
8. Please describe the trp operon and lac operon respectively. (10%)
9. Enzyme play an important role in many chemical reactions, and currently classified in six main group, please write down the categories of enzymes and describe their main function. (10%)
10. Explain (1) how energy be generated in our daily life, and (2) why after the process the ATP we got is 32or 30 (new system). (10%)