

元智大學 107 學年度 轉學考 招生試題卷

系(所)別：資訊管理學系學士班

組別：資訊管理學系 2 年級

科目：計算機概論

用紙第 / 頁共 / 頁

●不可使用電子計算機

1. Briefly explain the following terms: (20%, each 5%)
 - (a) CPU
 - (b) Internet of Things (IoT)
 - (c) Arithmetic overflow
 - (d) DBMS
2. Convert the following numbers. (15%, each 5%)
 - (a) Convert $(563)_8$ to Binary.
 - (b) Convert $(10111001)_2$ to decimal.
 - (c) Convert $(11010111)_2$ to hexadecimal.
3.
 - (a) Convert the two's complement representation 11011101 to its equivalent decimal values. (5%)
 - (b) Convert the decimal value -21 to its equivalent 8-bits two's complement representation. (5%)
4. What is the number of bits required to address an 8K bytes memory space? (5%)
5. Please illustrate two popular object oriented programming languages. (10%)
6. What is AI? Give two applications of AI. (10%)
7. Briefly describe the difference between "call by value" and "call by reference". (10%)
8. Transfer the infix expression $A/B \times C + D \times E$ to prefix and postfix expression. (10%)
9. What is operating system? Please illustrate two popular operating systems. (10%)