

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 3 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. Please convert the following numbers: (15%, each 5%)
 - (a) $(11.625)_{10}$ into equivalent binary number.
 - (b) $(5BF)_{16}$ into equivalent decimal number.
 - (c) What is the two's complement representation of $(-37)_{10}$? (8 bits is used)
2. Write the postfix expression of the following expression: $A/(B+C)+(D-E)/F$ (10%)
3. Please describe the primary operations of "Stack" and "Queue". (10%)
4. Compare the advantage and disadvantage of array versus linked list. (10%)
5. What is the difference between TCP and UDP? (10%)
6. Briefly explain the "Binary search tree". (10%)
7. What is E-R Diagram in database? (10%)
8. What is IoT? Give two examples of IoT. (10%)
9. (a) Please describe the algorithm for Bubble Sort. (5%)
(b) Write a pseudo code for Bubble Sort. (10%)