

南華大學九十九學年度 碩士班 招生考試試題卷

系所組別：資訊管理學系碩士班

科目編號：D51-1

科目：計算機概論

試題紙第 1 頁共 1 頁

1. $(28)_4 = (x)_{10}$ ，寫出 x (10%)
2. Given two sorting algorithm, quick sort and bubble sort, each with time complexity $O(n \log n)$ and $O(n^2)$ respectively. (30%)
3. (a) In computer networking, what are the seven protocol layers in the OSI reference model? (10%)
(b) which protocol layer is defined to handle routing? (5%)
4. (a) 說明採用 binary search 的基本條件為何? (3%) 寫出其演算法 (10%)
(b) 設有一 file 如下 1, 4, 7, 8, 10, 12, 13, 15, 18, 19, 22, 23, 25, 27, 30, 請以 binary search 找出 22, 請將搜尋順序列出 (7%)
5. (a) What are the three basic computer network topologies? (6%)
(b) Networks can be classified into which four types according the proximity of their nodes. (4%)
6. 解釋名詞: (1) Hub (2) Switch (3) Router (4) B2B (5) B2C (15%)