

國立嘉義大學九十四學年度 資訊工程學系碩士班招生考試試題

科目：計算機概論

- 一、 Explain the following terms : (15%)
 - (1) Memory interleave
 - (2) Data mining
 - (3) Translator
 - (4) Interpreter
 - (5) Daemon (in OS)
- 二、 What is the principal difference between connectionless communication and connection-oriented communication? (10%)
- 三、 What is the inverted page table for address translation? (10%)
- 四、
 - (1) What is the RAID? (5%)
 - (2) Describe the advantages of the RAID. (5%)
 - (3) Describe the levels of the RAID. (5%)
- 五、 Explain why most of today's computer systems use 2's complement instead of signed-magnitude in their hardware implementations. (5%)
- 六、 Write a recursive function, in pseudo code or any programming language, that takes a positive integer n as input and returns the summation of $1, 2, \dots, n$. (10%)
- 七、
 - (1) What are the primary issues that IPv6 is intended to solve and how does it solve them? (5%)
 - (2) All Internet network hosts have two addresses: a Datalink (MAC) address and an IP address. What is the difference and why are both required? (5%)
- 八、 Describe the steps performed by the CPU when an interrupt occurs. (5%)
- 九、
 - (1) In an operating system, process control block (PCB) contains many pieces of information. List five items in a PCB. (5%)
 - (2) Describe the steps performed by the CPU when an interrupt occurs. (5%)
- 十、 Given the Boolean function $F = A'C + A'B + AB'C + BC$.
 - (1) Express it in sum of minterms. (5%)
 - (2) Find the minimal sum of products expression. (5%)