

編號： 173 系所：工程科學系在職專班甲組

科目：計算機概論（專班）

本試題是否可以使用計算機：可使用，不可使用（請命題老師勾選）

1. What are the functions of an operating system of a computer system? (10%)
2. What is RAID? (5%) How is mirroring different from striping? (5%)
3. How is a compiler different from an interpreter? (5%) What is the advantage, and disadvantage of an interpreter? (5%)
4. How is an algorithm different from a program? Please give examples. (5%)
5. What is a cybercrime? (5%) What is a spyware? (5%)
6. What is a firewall? (5%) What is the function of an NAT? (5%)
7. What is the IEEE 802.11? (10%)
8. What are scalability and interoperability? (5%)
9. Implement a logic circuit for one bit binary full adder using AND, OR, and NOT logic gates. (10%)
- 10 Design an algorithm to create a search binary tree with N input integers. Please analyze the time and the space complexities of your algorithm. (20%)