

國立勤益技術學院九十五學年度研究所一般招生筆試試題卷

所別：流通科技管理研究所

組別：科技應用組

科目：計算機概論

准考證號碼：□□□□□□□□ (考生自填)

考生注意事項：

一、考試時間 100 分鐘。

二、選擇題部份，請依題號作答，否則不予計分。

三、

試題一：選擇題〈40分，每題4分，答錯不倒扣〉

※ (1-5)複選題；(6-10)單選題

- 下列數系轉換何者正確？
  - $11010011.1101_2 = 211.8125_{10}$
  - $1234.5_8 = 668.225_{10}$
  - $ABC.D_{16} = 2678.625_{10}$
  - $1000.3_{16} = 4096.1875_{10}$
- 有關主記憶體管理分割區域，下列敘述何者錯誤？
  - 在多重程式處理系統中，主記憶體分割區(Partition)必須固定大小區域，方可執行。
  - 在分頁設計(Paging)中，頁框(Frame)與分頁(Page)必須大小相同，方可執行。
  - 在分段設計(Segmentation)中，每一分段長度必須大小相同，方可執行。
  - 在分頁式分段設計(Segmentation with paging)中，每一分段及分頁長度必須大小相同，方可執行。
- 有關網路系統模型，下列敘述何者正確？
  - OSI 網路模型分七層定義，而 DoD 模型只分四層。
  - FTP, E-mail 是屬於應用層。
  - 網路層主要工作為定址及選擇傳送路徑。
  - 控制資料流量是鏈結層之工作。

4. Which of the following are correct?
- A BIOS is used to find the operating system and to load its kernel into memory for execution
  - B BIOS is a firmware that contains the startup instructions
  - C BIOS is a basic input/output system
  - D BIOS is stored in the hard disk.
5. Which of the following are correct?
- A Hash technique is used for sorting
  - B The operation of Queue is First In First Out
  - C The operation of Stack is First In Last Out
  - D An array is useful for frequent insertion and deletion.
6. Code reusability, interoperability, and portability are factors important to the \_\_\_\_\_ of software.
- A. operability
  - B. maintainability.
  - C. transferability
  - D. longevity.
7. Which of the following is a binary operator?
- A. select
  - B. update
  - C. difference
  - D. all of the above
8. Accuracy, efficiency, reliability, security, timeliness, and usability are factors important to the \_\_\_\_\_ of software.
- A. operability
  - B maintainability.
  - C. transferability
  - D. longevity.
9. In an abstract data type, \_\_\_\_\_.
- A. the ADT implementation is known
  - B. the ADT implementation is hidden
  - C. the ADT functions are hidden
  - D. none of the above

10. If there are 16 nodes to be stored in a binary tree, the minimum height of the tree is \_\_\_\_.
- A. 16
  - B. 5
  - C. 4
  - D. 1

試題二：問答題〈60分〉

1. CPU 設計架構有 RISC 和 CISC 兩種
  - a. 試寫出其中、英文名稱。(4%)
  - b. 試解釋其意義，並比較其功能、速度之差異性。(6%)
2. CPU Scheduler 一般可分為 Long-term, Medium-term 及 Short-term scheduler, 試分別解釋其意義。(10%)
3. Please describe the four primary functions of an operating system. (10%)
4.
  - a. What is the difference between a depth-first traversal and a breadth-first traversal of a binary tree? (5%)
  - b. What is the difference between a depth-first traversal and a breadth-first traversal of a graph? (5%)
5. Discuss the three loop statements in the C language. (10%)
6.
  - a. What is the difference between a frame and a packet? (5%)
  - b. What is the purpose of a synchronization point? (5%)