

佛光人文社會學院九十三學年度碩士在職專班招生考試試題卷

系所別：資訊學所

科目：資訊實務

用紙第 1 頁共 2 頁

一、選擇題

(每題兩分，共 30 分)

1. 下列何者不是電腦 CPU 排程的考慮原則： ① 公平性(fairness) ② 均衡性(balance) ③ 可靠性(reliability) ④ 生產量(throughput)。
2. 下列何者不是連結程式(linker)的工作內容： ① 分配(allocation) ② 加密(encryption) ③ 連結(linking) ④ 重定位(relocation)
3. 下列那一項資料結構比較適合用來實現樹(tree)： ① 雜湊函數(hashing function) ② 鏈結串列(linked list) ③ 佇列(queue) ④ 堆疊(stack)
4. 軟體測試(testing)應該在什麼階段進行： ① 單元開發(unit)階段 ② 軟體整合(integration)階段 ③ 系統建置(system implementation)階段 ④ 以上皆是
5. Java 語言跨平台的特性應歸功於它的： ① 虛擬機器(VM) ② 物件導向(OO) ③ 語法(syntax) ④ 位元碼(byte code)
6. Virtual memory is implemented through the use of ① cache memory. ② EEPROM. ③ registers. ④ secondary memory.
7. Which of the following is NO help for the purpose of information security: ① account management ② interactive web pages ③ encryption/decryption ④ firewall
8. A private network which is built on public networks is called: ① ISDN ② MSN ③ VPN ④ WAN
9. UML defines all the following diagrams EXCEPTS ① class diagram ② flowchart diagram ③ use case diagram ④ sequence diagram
10. Object-oriented design/programming employs all the following principles EXCEPTS ① component reusability ② data encapsulation ③ information disclosure ④ polymorphism
11. Unicode is represented internally in computers in the form of ① binary code. ② integer. ③ floating point. ④ decimal digits.
12. Which of the following statements is ALWAYS true : ① All software are copyrighted excepts those have been donated to the public domain. ② Free software means that the software is free of charge. ③ Open source means that you may freely distributed the source code without any constraints. ④ The terms Open Source Software and Free Software mean the same thing.
13. A 32 bits cpu means that for this cpu ① the width of its address bus is 32 bits. ② the width of its control bus is 32 bits. ③ the width of its character encoding is 32 bits. ④ the width of its data bus is 32 bits.

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14. The role for the middleware in a 3-tier client-server model is to: ① make the server easy to use. ② bridge different software systems. ③ replace both the front-end and back-end software. ④ keep the clients company.

15. Which language is considered best for the data-exchange purpose for web applications: ① HTML ② SQL ③ UML ④ XML

二、申論與程式題

(共 70 分)

1. There are several popular methodologies for developing computer software systems. Please explain any one of these methodologies that you are familiar with. (15%)

開發電腦軟體系統有幾種常見的方法。請描述這些方法中你熟悉的其中一種。

2. Describe the different categories of electronic commerce (B to B, B to C, etc.) and their associated business models. (15%)

描述電子商務的各種類型 (B to B, B to C 等等)及它們的經營模式。

3. Security of information is a critical consideration in designing management information systems. Describe the popular technologies used to ensure the security of information (including data security, network security, system security, etc.). (15%)

資訊安全是設計管理資訊系統的一個重要考慮。請描述保障資訊安全的一些常見方法 (包括資料安全,網路安全,系統安全等等)。

4. What is recursion? How is it compared to the iteration? Please explain. (15%)

什麼是遞迴? 和迴圈比較的優缺點? 請說明。

5. Use a static array to implement the stack operations: push/pop in one of your favorite programming languages (Basic, C/C++, Java, Pascal etc.). (10%)

Hint: Please be careful about the boundary conditions (stack overflow and underflow.)