



第一部分

一、單選題 (每題 2 分, 共 30 分)

1. I wish to have a wireless LAN to serve my house. I will use _____.
 (A) RFID (B) ZigBee (C) Bluetooth (D) 802.11g
2. In routing tables, which column describes the attractiveness of a row?
 (A) The metric column (B) The QoS column
 (C) The IP address range column (D) The next-hop router column
3. Which of the following can provide priority to traffic based on TCP port numbers?
 (A) Layer 2 switches (B) Layer 3 switches
 (C) Layer 4 switches (D) Layer 5 switches
4. A Windows host sends a TCP segment with source port number 47 and destination port number 3270.
 (A) The destination host is a server (B) The destination host is a client
 (C) The source host is a server (D) The source host is a client
5. Digital certificate authentication proves that the applicant knows _____.
 (A) his or her private key
 (B) his or her public key
 (C) the public key of the party the applicant claims to be
 (D) the private key of the party the applicant claims to be
6. When an SSL/TLS gateway is used in a site that has four web servers and no other servers, how many SSL/TLS connections will the client have?
 (A) One (B) Two (C) Three (D) Four
7. DoS attacks are attacks on _____.
 (A) integrity (B) sensitivity (C) availability (D) confidentiality
8. The scope of _____ is a single information system application.
 (A) systems planning (B) systems analysis
 (C) systems design (D) systems implementation
9. A _____ represents the input of data to process or the output of data from a process.
 (A) data flow (B) use case
 (C) state diagrams (D) connectivity diagrams
10. _____ is a property that allows the generic description of objects which are then reused by related objects.
 (A) Encapsulation (B) Inheritance (C) Polymorphism (D) Public
11. During the _____ phase of Rational Unified Process, you establish the business case for the system and delimit the project's scope.
 (A) elaboration (B) construction (C) inception (D) transition
12. Which of the following is not a common type of threading implementation?
 (A) Many-to-One Model (B) One-to-One Model
 (C) Many-to-Many Model (D) One-to-Many Model
13. Which of the following is not a necessary condition of deadlock?
 (A) bounded waiting (B) mutual exclusion
 (C) hold-and-wait (D) no preemption
14. _____ is a scheme that permits the logical address space of a process to be noncontiguous.
 (A) Swapping (B) Sharing (C) Locating (D) Paging
15. _____ is a special case of the general priority scheduling algorithm, which simply allocates the CPU to the highest-priority process?
 (A) First-come, first-served scheduling (B) Shortest-job-first scheduling
 (C) Round-robin scheduling (D) Multilevel Queue Scheduling



二、試比較分析傳統結構化程式語言與物件導向程式語言有何異同之處。(10%)

三、假設有 1 個背包及 7 項物品，背包可以載重 25 公斤，7 項物品(編號)的價值(元)及重量(公斤)如下表所示，試問該如何裝才可以帶走最有價值的物品呢？其價值又是多少呢？
 註：不可直接寫答案需寫出運算過程才給分。(10%)

物品	1	2	3	4	5	6	7
價值	4	9	7	2	5	8	3
重量	4	6	4	10	7	8	4

第二部分(單選題，每題 2 分，共 50 分)

- Which one of the followings is a software package that provides emulation of the underlying raw hardware on the x86 architectures?
 (A) VMware (B) MVS (C) CP/CMS (D) z/OS
- Which one of the followings is *not* a layer of the SAS (Serial Attached SCSI) architecture?
 (A) session (B) application (C) transport (D) port
- Which one of the followings consists of suites of related applications that voluntarily cede time to each other?
 (A) multiprogramming (B) cooperative multitasking
 (C) preemptive multitasking (D) multithreading
- Which one of the following file systems is *not* supported by Microsoft Windows?
 (A) NTFS (B) FAT (C) ext4 (D) UDF
- Which one of the following programming languages does *not* support dynamic typing?
 (A) Ruby (B) Lisp (C) Python (D) Java
- Which one of the followings is the process by which an object sends data to another object or asks the other object to invoke a method?
 (A) polymorphism (B) encapsulation
 (C) inheritance (D) message passing
- Which one of the followings is *not* an anonymous P2P computer network?
 (A) GUNet (B) Nasper (C) Frecnet (D) RShare
- Which one of the followings is *not* a linear data structure?
 (A) linked list (B) queue
 (C) binary heap (D) circular buffer
- Which one of the followings is *not* a geographic data model?
 (A) entity-relationship data model
 (B) vector data model
 (C) raster data model
 (D) triangulated irregular network data model
- Which one of the followings is an algorithm that invokes itself repeatedly until a certain condition matches?
 (A) recursive algorithm (B) iterative algorithm
 (C) deterministic algorithm (D) approximation algorithm
- Which one of the followings is *not* a compiled language?
 (A) C++ (B) Ruby (C) Common Lisp (D) Visual Basic
- Which one of the followings is a sequential development process, in which development is seen



- as flowing steadily downwards through the phases of requirements analysis, design, implementation, testing (validation), integration, and maintenance?
- (A) software prototyping (B) incremental development
(C) waterfall model (D) spiral model
13. Which one of the following classifications will distributed systems be generally recognized as?
(A) single instruction, single data stream
(B) single instruction, multiple data streams
(C) multiple instruction, single data stream
(D) multiple instruction, multiple data streams
14. Which one of the followings is a software testing method that is used to test internationalization aspects of software?
(A) code coverage (B) fault injection
(C) boundary value analysis (D) pseudolocalization
15. Which one of the followings is *not* a metric of service level agreement?
(A) time service factor (B) cyclomatic complexity
(C) abandonment rate (D) turnaround time
16. Which one of the followings is *not* a part of the database transaction ACID properties?
(A) atomicity (B) consistency (C) isomorphism (D) durability
17. Which one of the following relational algebra operations produces a new relation with only some of the attributes of its operand?
(A) π (B) σ (C) \times (D) \cup
18. Which one of the followings is a DDL statement in SQL?
(A) ALTER (B) COMMIT (C) INSERT (D) SELECT
19. Which one of the followings is a web application architecture based on XForms, REST and XQuery?
(A) OQL (B) XRX (C) LINQ (D) QBE
20. Which one of the followings is a protocol specification for exchanging structured information in the implementation of Web Services in computer networks?
(A) DHCP (B) SSH (C) SOAP (D) SMTP
21. Which one of the followings is a public key/private key encryption algorithm?
(A) SHA-1 (B) MD5 (C) DES (D) RSA
22. Which one of the followings is an entity which issues digital certificates for use by other parties?
(A) registration authority (B) validation authority
(C) trusted authority (D) certificate authority
23. Which one of the followings can perform some or all of the functions normally performed by a router?
(A) layer 2 switch (B) layer 3 switch
(C) layer 4 switch (D) layer 7 switch
24. Which one of the followings is *not* a part of the Java programming language?
(A) while (B) for (C) goto (D) switch
25. Which one of the followings is an architecture to attach remote computer storage devices to servers in such a way that the devices appear as locally attached to the operating system?
(A) SAN (B) NAS (C) NFS (D) AFS



1. 詳述數位內容產業之未來發展趨勢？(20%)
2. 請以個人電腦、投影機、喇叭、攝影機、Wii 把手、或其他人機介面等裝置，設計一個以成人為對象之互動遊戲。
(30%)
分別描述
 - (1)互動遊戲示意圖及整體遊戲概述 (10%)
 - (2)人機介面設計 (10%)
 - (3)數位內容概述 (10%)
3. 數位內容產業中，一個稱職的專案經理，應該具備那些專業知能？扮演什麼樣的角色？(25%)
4. 如何藉由地方文化創意，發展數位內容產業？就設計觀點而言，台灣的國際競爭機會在哪裡？(25%)



一、

地方產業的振新與農業休閒觀光化，為當前政府大力推動的方向。如何善用數位媒體優勢，拓展地方產業行銷管道，也是數位內容加值設計領域之重點發展方向。請以雲林縣古坑咖啡為例，請以主題網站為軸心，規劃出一套完善之數位媒體行銷策略。內容可包含，視覺形象規劃、活動設計、媒體企畫、網站設計、數位行銷商務規劃等。請以內容說明(文字、圖表、流程圖 25%)與設計草圖(首頁版面設計，25%)說明。(共 50 分)

2. 請利用電腦中所提供的軟體(Maya、3D Max、Flash、Photoshop、Illustrator)中的任何一種或綜合運用，完成下列甲、乙兩項題目中的任何一題要求(不必兩題都做)，(共 50 分)

甲、3D 動畫：請利用電腦中提供的角色模型製作一段棒球投手在投手丘上投球的動作動畫。需要包含鏡頭運動以及棒球從投手的手中出手後的連續感覺。請使用簡易跑圖即可，無須打光或正式跑圖。

乙、2D 動畫：請利用 2D 軟體先行設計一個結合「熊」的外表特色的高雄市棒球隊吉祥物造型。然後利用此造型製作一段棒球投手在投手丘上投球的動作動畫。

完成後請將原始檔案以及完成動畫檔案(限以 QuickTime 格式存檔)燒錄在光碟片中，燒錄時間包含在考試時間內，燒錄失敗或未在考試時間內完成，視同未繳交作品。