

國立金門技術學院

97 學年度電資研究所碩士班（資訊系統組）考試試題

計算機概論

Multiple Choice (50%)

1. What servers are used as filters to limit outside access to the real server and to limit employee access to specific Web sites?
(A) Firewall (B) Client-blockers (C) Proxy (D) Server-stoppers.
2. What device bridges the gap between incompatible networks by performing the necessary protocol conversions to route messages to their proper destinations?
(A) Hub (B) Bridge (C) Router (D) Multiplexor.
3. In the Windows environment, what term is used to identify the area in which cluster information is stored?
(A) Directory (DIR) (B) Virtual File Allocation Table (VFAT) (C) File Allocation Table (FAT) (D) Zone.
4. What process consolidates files into contiguous clusters?
(A) Defragmentation. (B) Consolidation. (C) Compression (D) Conjunction.
5. What type of memory is the basis for e-book (electronic book) readers?
(A) Flash (B) RAM (C) ROM (D) EPROM.
6. To what does the term “throughput” refer?
(A) The rate at which work can be performed by a computer system (B) The rate at which data can be inputted to a computer system (C) The rate at which results can be outputted by a computer system (D) The rate at which calculations can be executed by a computer system.
7. The program register contains the
(A) instruction being executed (B) location in RAM of the next instruction to be executed (C) results of the arithmetic and logic unit (D) instruction that is being decoded.
8. What is a network called that employs encryption and other security measures to the public Internet to ensure that communications are not intercepted and that only authorized users are allowed access to the network?
(A) Virtual Private Network (VPN) (B) Secure Private Network (SPN) (C) PrivNet (PN) (D) Tunnel Net (TN).
9. Which of the following is a general certification in the area of computers and information technology?

(B) Certified Computing Professional (CCP) (B) Certified Directory Engineer (CDE) (C) Advanced Computing Professional (ACP) (D) Master Network Engineer (MNE).

10. Which of the following is NOT a frequently cited reason for telecommuting?
(C) Money savings on office space (B) Improved employee morale (C) Increase of sick time (D) Increased productivity.
11. A truck dispatching information system may include an onboard _____ that gives the precise location of each vehicle in the fleet.
(A) vehicle monitoring system (VMS) (B) LoJack system (C) global positioning system (GPS) (D) system tracking program (STP).
12. Which of the following IT professionals convert analyst-prepared system and input/output specifications into programs?
(A) Applications programmers (B) System programmers (C) System analysts (D) Database administrators (DBAs).
13. America Online (AOL). is an example of a(n):
(A) Commercial information service (CIS) (B) Internet Service Provider (ISP) (C) local area network (LAN) with Internet access (D) peer-to-peer network provider (P2PNP).
14. What is the Internet equivalent of an address called?
(D) protocol (B) URL (C) HTTP (D) World Wide Web (WWW).
15. The optional personal information that is automatically placed at the end of an e-mail message is called a(n)
(E) attachment (B) signature (C) closing (D) referral.
16. What technique is used with a structured approach to system design?
(A) module driver (B) Button-up (C) Top-down (D) Hierarchical.
17. What is the term for the computer-to-computer exchange of data and information between businesses?
(A) Computer-to-computer (C2C) (B) Business-to-business (B2B) (C) Business-to-consumer (B2C) (D) Computer-to-customer (C2C).
18. When using _____, you set conditions for the selection of records by composing one or more example relational expressions?
(A) query by example (QBE) (B) mix and match (M&M) (C) seek and find (S&F) (D) question and answer (Q&A).
19. What software is used to search for answers to unasked questions and detect unanticipated trends from databases?
(A) Data mining (B) Data warehousing (C) Query by example (D) Relational search engine.
20. The most popular encryption systems use:

(A) public-key encryption (B) private-key encryption (C) combination-key encryption (D) dual-key encryption.

21. What is environmentally sensible computing known as?

(A) Ecological (B) Nature's (C) Blue (D) Green.

22. What is the term for an attachment to an electronic message that verifies that the sender is who he or she claims to be?

(A) Digital certificate (B) Cookie (C) Brownie (D) signature

23. What systems detect unique personal characteristics and match these against a database containing the characteristics of authorized users?

(A) Database management systems (DBMS) (B) Biometric identification systems (C) Biofeedback systems (D) Personality identification systems.

24. What term describes using a program that enables someone to bypass security controls?

(A) Scanning (B) Tailgating (C) Superzapping (D) Masquerading

25. What is the new encryption technology called that converts the recipient's e-mail address into a number, which is used in a mathematical algorithm to complete the encryption process?

(A) Cyber-key encryption (B) Algorithm-based encryption (C) E-mail based encryption (D) Identity-based encryption.

Questions and Answers (50%)

26. Please consider the following data set and transfer it into the format of relational tables. It must be satisfied 3st Normal Form. (20%)

訂 購 單				
下單日期: 2000/1/15				
項目編號	書籍名稱	出版公司	價格	數量
1	Linux 實務應用	旗旗出版公司	620	150
2	BIOS 玩家實戰	旗旗出版公司	299	100
3	Windows 98 系統秘笈	旗旗出版公司	490	80
應付總價: 162100				
送貨地址: 台北市忠孝東路九段 10 號				
聯絡人: 吳明士				

27. IF input sequences are {7,5,1,4,3,2,6}, please write and explain the straight insert sort concept and sort the sequences with the straight insert sort method. (15%)

28. IF input Array A=<3、9、5、17、12、1、8>, please show your steps how to build the MaxHeap? (15%)