

科目：計算機概論

系所組：系統系應統碩班

Multiple Choice (單選題) : (75%)

- ___ 1. The ___ is the electronic component that interprets and carries out the basic instructions that operate the computer.
- a. motherboard c. processor
b. control unit d. arithmetic unit
- ___ 2. A computing phrase — known as ___ — points out that the accuracy of a computer’s output depends on the accuracy of the input.
- a. what you see is what you get c. nothing ventured, nothing gained
b. garbage in, garbage out d. better safe than sorry
- ___ 3. Today’s computers support ___, which means the computer automatically can configure adapter cards like the one in the accompanying figure and other peripherals as users install them.
- a. concatenation c. daisy chaining
b. peripherals d. Plug and Play
- ___ 4. Data ___ identifies the quality of data in a database.
- a. resolution c. dimensionality
b. access d. integrity
- ___ 5. Popular data models in use today include all of the following EXCEPT ____.
- a. relational c. object-oriented
b. hierarchical d. multidimensional
- ___ 6. Compared with relational databases, object-oriented databases ____.
- a. can store more types of data c. allow programmers to reuse objects
b. access data faster d. all of the above
- ___ 7. With a(n) ___, users interact with the software using text, graphics, and visual images such as icons.
- a. GUI c. HUI
b. DUI d. BUI
- ___ 8. Two categories of software are ____.
- a. operating system and system software
b. system software and utility programs
c. utility programs and operating systems
d. system software and application software
- ___ 9. ___ are the fastest, most powerful computers — and the most expensive.
- a. Desktop computers c. Midrange servers
b. Notebook computers d. Supercomputers
- ___ 10. A(n) ___ is a system that attempts to imitate the behavior of the human brain.
- a. human webnet c. neural network
b. online matrix d. cerebral terminal
- ___ 11. ___ is a technology that provides high-speed Internet connection using regular copper telephone lines.
- a. DSL c. CMOS
b. ISP d. OSP
- ___ 12. A(n) ___ provider is a business that provides individuals and companies access to the Internet for free or for a fee.
- a. service c. host
b. access d. e-mail

※ 注意：1. 考生須在「彌封答案卷」上作答。

2. 本試題紙空白部份可當稿紙使用。

3. 考生於作答時可否使用計算機、法典、字典或其他資料或工具，以簡章之規定為準。

科目：計算機概論

系所組：資訊系應屆碩士班

- ___ 13. A(n) _____ is a program that extends the capability of a browser.
- a. player
 - b. plug-in
 - c. rebrowser
 - d. publisher
- ___ 14. _____ occurs when one consumer sells directly to another consumer, such as in an online auction.
- a. Consumer-to-business (C2B) e-commerce
 - b. Business-to-consumer (B2C) e-commerce
 - c. Consumer-to-consumer (C2C) e-commerce
 - d. Business-to-business (B2B) e-commerce
- ___ 15. VoIP _____.
- a. uses a slow speed dial-up connection
 - b. uses the public switched telephone network
 - c. also is called Internet telephony
 - d. all of the above
- ___ 16. _____ is the most common type of volatile memory.
- a. ROM
 - b. Flash memory
 - c. CMOS
 - d. RAM
- ___ 17. The _____ is the core of an operating system that maintains the computer's clock, starts applications, and assigns the computer's resources, such as devices, programs, data, and information.
- a. cell
 - b. grid
 - c. nexus
 - d. kernel
- ___ 18. The BIOS executes a series of tests, collectively called the _____, which check the various system components including the buses, system clock, adapter cards, RAM chips, mouse, keyboard, and drives.
- a. boot
 - b. preemption
 - c. POST
 - d. UNIX
- ___ 19. A _____ is a wireless network that provides Internet connections to mobile computers and other devices.
- a. wi-spot
 - b. hot link
 - c. quick spot
 - d. hot spot
- ___ 20. For best performance of a communications channel, _____.
- a. bandwidth and latency should be low
 - b. bandwidth should be low and latency high
 - c. bandwidth should be high and latency low
 - d. bandwidth and latency should be high
- ___ 21. The amount of data, instructions, and information that can travel over a communications channel sometimes is called the _____.
- a. broadband
 - b. latency
 - c. baseband
 - d. bandwidth
- ___ 22. _____ is the time it takes a signal to travel from one location to another on a network.
- a. Latency
 - b. Symmetry
 - c. Frequency
 - d. Delay register
- ___ 23. Fiber-optic cables have all of the following advantages over cables that use wire *except* _____.
- a. lower costs and easier installation and modification
 - b. faster data transmission and smaller size
 - c. less susceptible to noise from other devices
 - d. better security for signals during transmission

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科目：計算機概論

系所組：統資系應統碩班

- ____ 24. A(n) ____ digit is a number(s) or character(s) that is appended to or inserted into a primary key field.
- a. check
 - b. index
 - c. insertion
 - d. integer
- ____ 25. ____ is a process designed to ensure the data within the relations (tables) contains the least amount of duplication.
- a. Concatenation
 - b. Rasterization
 - c. Dithering
 - d. Normalization

Short Essay Question (簡答題): (25%)

1. 請說明資料庫管理系統能解決傳統的檔案處理系統哪兩大缺點? (4%)
2. 請分別說明network topology有哪些種類，並說明其優缺點? (6%)
3. 請分別說明freeware和open source有何不同? (2%)
4. 請分別說明worm, Trojan horse有何不同? (4%)
5. 請說明何謂client/server architecture, peer-to-peer? (4%)
6. 請說明什麼是RFID，並舉一例在生活中應用的例子 (3%)
7. 請說明什麼是cloud computing，並舉一例在生活中應用的例子 (2%)

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