本試題是否可以使用計算機： □可使用 ， ☑不可使用 （請命題老師勾選）

（一）選擇題：每一題二分，答錯不倒扣。第一大題限答在第一頁上，先畫一個表格，每五題為一列。請標明題號，未依題號依序作答者，一律不予計分。

1. The _____ standard promises to provide enough characters to cover all the world's languages.
   a. ASCII　　　　b. Unicode　　　　c. RAM　　　　d. EBCDIC

2. The computer can move date and instructions between storage and memory, as needed, in a process called _____.
   a. swapping　　　b. volatility　　　c. pipelining　　　d. exchanging

3. A laptop will most likely use _____ memory chips.
   a. DIMM　　　　b. SO-DIMM　　　c. SIPP　　　　d. SIMM

4. FireWire is another name for the _____ interface.
   a. parallel　　　b. IEEE 1394　　　c. MIDI　　　　d. USB

5. In a magnetic disk drive, the read/write heads generate _____ in the iron particles on the storage medium.
   a. polarized magnets　b. electromagnetic pulses　c. magnetic waves　d. magnetic fields.

6. Intelligent smart cards contain their own _____.
   a. read/write head　　b. microprocessor　　c. laser　　d. flash memory drive

7. Although it is not a drive interface per se, this type of connection does support storage devices.
   a. EIDE　　　　b. USB　　　　c. SCSI　　　　d. MBps

8. Select the type of operating system you would expect to be used in a computerized heart monitor.
   a. multi-user/multitasking　　b. real-time　　c. single-user/multitasking　　d. single-user/single tasking

9. An operating system keeps track of which programs have access to which hardware devices and uses _____ to help the CPU coordinate processes.
   a. interrupt requests (IRQs)　　b. disk drives　　c. multitasking　　d. user interface

10. Which network operating system has long been the OS of choice for the most critical servers of the Internet, such as those that maintain the lists of Internet domain names?
    a. DOS　　b. UNIX　　c. Windows NT Professional　　d. Mac OS

11. A _____ image consists of mathematical equations describing the size, shape, thickness, position, color, and fill of lines or closed graphical shapes.
    a. raster　　b. large　　c. vector　　d. complex

（背面仍有題目,請繼續作答）

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12. The _____ graphics file format was defined for use on Macintosh computers.
    a. JPEG　　　b. TIFF　　　c. IGES　　　d. PICT

13. An extranet is like an intranet except that it allows company employees access to corporate Web sites from the _____.
    a. employee's desktop PC　　b. supervisor's PC　　c. employee's fax/printer device　　d. Internet

14. A _____ is a type of network usually found where students and school administrators have a need to share files across several buildings.
    a. wide area network(WAN)　　b. metropolitan area network(MAN)　　c. campus area network(CAN)　　d. local area network(LAN)

15. An arrangement where user accounts are centralized on a server and PCs gain access to network resources by accessing this server is called a _____.
    a. client/server network　　b. peer-to-peer network　　c. server-to-server network　　d. client/client network

16. You should consider _____ when purchasing a modem.
    a. transmission speed and data length　　b. error correction and transmission speed　　c. fastest error correction method　　d. bus speed of PC

17. _____ service offers a total of 44.736 Mbps of bandwidth.
    a. ATM　　　b. T1　　　c. T2　　　d. T3

18. If you want to connect to a remote network or the Internet using a modem, you need to connect the modem to a(n) _____.
    a. analog telephone line　　b. digital telephone line　　c. teleconferencing line　　d. ATM line

19. A modem converts the computer's digital data into analog signals in the _____ phase of its operation.
    a. modularization　　b. modulification　　c. modulation　　d. modularitization

20. Several different visions of this service are available, each offering a different level of performance.
    a. ISDN　　　b. DSL　　　c. cable modem　　　d. satellite

21. Sockets and Winsock are examples of this type of software.
    a. VCR　　　b. DSL　　　c. IPX　　　d. API

22. Wi-Fi Protected Access was created as a replacement for this encryption standard.
    a. WEP　　　b. WPA　　　c. WLAN　　　d. WWAN

23. When you set up an account with an online merchant, the Web site may place one of these on your computer's disk.

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    a. catalog   b. shopping cart   c. cookie   d. encryption

24. Which type of transaction between companies can be considered a B2B transaction?

    a. any financial transaction   b. buying parts   c. ordering products

    d. purchasing stocks

25. The process of validating the data in a database is called _____ .

    a. data scouring   b. data scrubbing   c. data washing   d. data cleaning

26. A computer system that is _____ can be incrementally expanded as the need occurs.

    a. scalable   b. interoperable   c. redundant   d. transparent

27. An office automation system can be built from a(n) _____ .

    a. off-the-shelf application   b. transaction processing system (TPS)

    c. expert system   d. management information system (MIS)

28. During needs analysis, the development team must _____ .

    a. define the problem   b. implement the system   c. decide how to implement the system   d. create applications

29. By using _____ , developers can verbally describe the events, actions, and alternative actions that can occur within an information system.

    a. data flow diagrams   b. structured English   c. prototypes   d. decision trees

30. Object-oriented systems analysis defines objects that are assigned _____ and the relationships between the objects are defined.

    a. developers   b. tools   c. attributes   d. numbers

31. One goal of _____ is development of readable code.

    a. programming languages   b. interpreters   c. compilers   d. structured programming

32. _____ builds on and enhances structured programming.

    a. A compiler   b. A programming language   c. Object-oriented programming   d. Program control flow

33. A(n) _____ file is a partial .exe file that has its commands accessed by other programs.

    a. .ini   b. .dll   c. .bat   d. .dat

34. _____ are seldom used except to fine-tune important parts of programs written in a high-level language.

    a. Compilers   b. Assembly languages   c. Interpreters   d. Front ends

35. Programmers begin roughing out the logic they will use in the _____ stage of the software SDLC.

　　　　a. program design　　b. development　　c. implementation　　d. testing

36. If you regularly back up your data, this is a _____ against the threat of data loss.

　　　　a. firewall　　　b. class　　　c. security　　　d. countermeasure

37. In the right setting, a thief can try _____ information by listening in while the victim gives credit card or other personal information to a legitimate agent.

　　　　a. sniffing　　　b. spoofing　　　c. snagging　　　d. slipping

38. The use of data about your Web-surfing habits is called _____.

　　　　a. online profiling　　b. IP profiling　　c. user profiling　　d. surfer profiling

39. Most Web browsers feature built-in settings that give you some control over ___.

　　　　a. Web bugs　　b. cookies　　c. ads　　d. spyware

40. If the Web site you are viewing places a cookie on your system, the cookie is called a _____ cookie.

　　　　a. session　　　b. third-party　　c. first-party　　d. expired

（二）　問答題

1. What is the result of performing a one-bit left circular shift on the flowing bytes represented in hexadecimal notation? Give your answer in hexadecimal form.

　　　　a. AB　　b. 5C　　c. B7　　d. 35　　(4%)

2. Suppose the insertion sort as presented in the following Figure was applied to the list Gene, Cheryl, Alice, and Brenda. Describe the organization of the list at the end of each execution of the body of the outer while structure. (6%)

procedure Sort (List)

N ⟵ 2;

while (the value of　N does not exceed the length of List) **do**

　　(Select the Nth entry in List as the pivot entry;

　　Move the pivot entry to a temporary location leaving a hole in List;

　　while (there is a name above the hole and that name is greater than the pivot) **do**

　　(move the name above the hole down into the hole leaving a hole above the name)

　　Move the pivot entry into the hole in List;

　　N ⟵ N+1

　　)

3.Using a breadth-first approach, draw the search tree that is constructed by a control system when solving the eight-puzzle from the following start state: (5%)

1	2	3
4	8	5
7	6	

4. Adjust the weights and threshold value of the following processing unit so that its output is 1 if and only if at least two of its inputs are 1s. (5%)