

所別：企業管理學系碩士班 企業電子化組(庚組) 科目：計算機概論
(辛組)

每題 2 分, 共 100 分

1. When converting a decimal number to binary, you repeatedly divide it by ____
 - a. 2
 - b. 8
 - c. 10
 - d. 16

2. The only digits used in the ____ number system are 0 and 1.
 - a. decimal
 - b. octal
 - c. binary
 - d. hexadecimal

3. Which of the following is an integer representation method that handles both positive and negative numbers?
 - a. sign-and-magnitude
 - b. one's complement
 - c. two's complement
 - d. all fo the above

4. Which of the following can be classified as data?
 - a. numbers
 - b. video
 - c. audio
 - d. all of the above

5. _____ is a 16-bit code that can represent symbols in languages other than English
 - a. ASCII
 - b. Extended ASCII
 - c. EBCDIC
 - d. Unicode

6. In the ____ graphic method of representing an image in a computer, each pixel is assigned one or more bit patterns.
 - a. bitmap
 - b. vector
 - c. quantized
 - d. binary

注意：背面有試題

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7. The binary _____ operator takes two inputs to produce one output.
- AND
 - OR
 - XOR
 - All of the above
8. To flip all the bits of a bit pattern, make a mask of all 1s and then _____ the bit pattern and the mask.
- AND
 - OR
 - XOR
 - NOT
9. In two's complement representation with a 4-bit allocation, you get _____ when add 1 to 7.
- 8
 - 1
 - 7
 - 8
10. _____ is a stand-alone storage location that holds data temporarily.
- An ALU
 - A register
 - A control unit
 - A tape drive
11. _____ is a memory type with capacitors that need to be refreshed periodically.
- SRAM
 - DRAM
 - ROM
 - All of the above
12. If the word size is 2 bytes, a data bus with _____ wires is needed.
- 2
 - 4
 - 8
 - 16

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13. A _____ is a set of rules that controls the interaction of different devices in a network or internetwork.

- a. model
- b. protocol
- c. dialog
- d. synchronization point

14. The OSI model has _____ layers

- a. five
- b. six
- c. seven
- d. any of the above

15. _____ is a protocol for accessing and transferring documents on the WWW.

- a. FTP
- b. SMTP
- c. TELNET
- d. HTTP

16. _____ supervises the activity of each component in a computer system.

- a. An operating system
- b. Hardware
- c. A queue
- d. An application program

17. A process in a ready state goes to the running state when _____

- a. it enters memory
- b. it requests I/O
- c. it gets access to the CPU
- d. it finishes running

18. Multiprogramming requires a _____ operating system

- a. batch
- b. time-sharing
- c. parallel
- d. distribution

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19. _____ is a process in which an algorithm calls itself.
- Insertion
 - Searching
 - Recursion
 - Iteration
20. In _____ sort, the items are divided into two lists: sorted and unsorted.
- selection
 - bubble
 - insertion
 - all of the above
21. In _____ sort, the item that goes to the sorted list is always the first item in the unsorted list
- selection
 - bubble
 - insertion
 - all of the above
22. The only language understood by computer hardware is a _____ language
- machine
 - symbolic
 - high level
 - natural
23. The compiler consists of a _____ and a _____
- preprocessor, loader
 - text editor, loader
 - preprocessor, translator
 - linker, preprocessor
24. In an OO language, _____ is the hiding of data and operations from the user.
- encapsulation
 - inheritance
 - polymorphism
 - modularity

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25. One phase in the system development is _____
- a. analysis
 - b. testing
 - c. design
 - d. all of the above
26. Code reusability, interoperability, and portability are factors important to the _____ of software
- a. operability
 - b. maintainability
 - c. transferability
 - d. longevity
27. Testing a software package can involve _____ testing.
- a. black box
 - b. white box
 - c. breakbox
 - d. a and b
28. _____ is a fixed-size, sequenced collection of elements of the same data type.
- a. An array
 - b. A record
 - c. A linked list
 - d. A variable
29. _____ is an ordered collection of data in which each element contains the location of the next element.
- a. An array
 - b. A record
 - c. A linked list
 - d. A node
30. All the members of a record must be _____
- a. the same type
 - b. related types
 - c. integer type
 - d. character type

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31. A(n) _____ list is also known as a stack.
- LIFO
 - FIFO
 - unordered
 - ordered
32. If there are 16 nodes to be stored in a binary tree, the minimum height of the tree is _____
- 16
 - 5
 - 4
 - 1
33. In a preorder traversal, the _____ is processed first.
- left subtree
 - right subtree
 - root
 - a or b
34. _____ file can be accessed randomly
- A sequential
 - An indexed
 - A hashed
 - b and c
35. When a hashing algorithm produces an address for an insertion key and the address is already occupied, it is called a _____.
- collision
 - probe
 - synonym
 - linked list
36. An index file consists of _____
- a sequential data file
 - an index
 - a random data file
 - b and c

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43. In encryption/decryption, _____ key is known by everyone.
- a. secret
 - b. private
 - c. public
 - d. skeleton
44. In the secrete key method of encryption and decryption, _____ possession of the secrete key.
- a. only the sender has
 - b. only the receiver has
 - c. both the sender and the receiver have
 - d. the general public has
45. In a digital signature method, the sender uses his or her _____ key to encrypt the message.
- a. public
 - b. private
 - c. secret
 - d. skeleton
46. A Turing machine has these components: _____
- a. tape, memory, and read/writhe head
 - b. disk, controller, and read/write head
 - c. tape, controller, and read/write head
 - d. disk, memory, and controller
47. The complexity of a program is $O(\log_{10} n)$ and the computer executes 1 million instructions per second. How long does it take to run the program if the number of inputs is 10,000?
- a. 1 microsecond
 - b. 2 microseconds
 - c. 3 microseconds
 - d. 4 microseconds

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48. The Gödel number is _____ number assigned to a program in a specific language.
- a. a binary
 - b. an integer
 - c. a real
 - d. a signed
49. In the von Neumann model, the _____ subsystem accepts data and programs and sends processing results to output devices.
- a. ALU
 - b. input/output
 - c. memory
 - d. control unit
50. _____ is a set of instructions in a computer language that tells the computer what to do with data.
- a. An operating system
 - b. An algorithm
 - c. A data processor
 - d. A program