

※ 注意：請於答案卷內之「選擇題作答區」依序作答。

1. Which of the following bit patterns represents the value 5 in two's complement notation?
A. 00011010 B. 11111011 C. 00000101 D. 11111011
2. Which of the following representations in two's complement notation represents the largest value?
A. 00000010 B. 11111111 C. 00000001 D. 11111110
3. How many different symbols can be encoded using Unicode?
A. 256 B. 4,096 C. 65,536 D. 1,046,476
4. Which of the following is a means of encoding music?
A. ASCII B. MIDI C. JPEG D. GIF
5. Which of the following is not contained in a CPU?
A. Instruction register B. Program counter
C. General-purpose register D. Memory cell
6. Which of the following instructions does not fall in the category of arithmetic/logic instructions?
A. ROTATE B. ADD C. OR D. JUMP
7. Which of the following is not an activity performed entirely within a CPU?
A. Fetch instructions B. Perform Boolean operations
C. Perform arithmetic operations D. Move data between registers
8. Which of the following items of information would not be contained in an operating system's process table?
A. The location of the memory area assigned to the process
B. The priority of each process
C. Whether the process is ready or waiting
D. The machine language instructions being executed by the process
9. Which of the following is a technique for controlling access to a critical region?
A. Spooling B. Time sharing C. Semaphore D. Booting
10. Which of the following is not involved in a context switch?
A. Interrupt B. Process table C. Dispatcher D. Shell

見背面

11. Which of the following is a task that is not performed by the kernel of an operating system?
A. Communicate with the user B. Schedule processes
C. Allocate resources D. Avoid deadlock
12. Which of the following is not a way of classifying networks?
A. WAN versus LAN B. Closed versus open
C. Router versus bridge D. Star versus bus
13. Which of the following is used to translate between IP addresses and mnemonic addresses?
A. File server B. Mail server C. Name server D. FTP server
14. The insertion sort algorithm is an example of an algorithm in which of the following classes?
A. $\Theta(\lg n)$ B. $\Theta(n)$ C. $\Theta(n \lg n)$ D. $\Theta(n^2)$
15. Which of the following is an example of a language that is based on the functional paradigm?
A. LISP B. PROLOG C. C D. C++
16. Which of the following is not a control statement?
A. If-then-else statement B. While loop statement
C. Assignment statement D. For loop statement
17. Which of the following is not associated with object-oriented programming?
A. Inheritance B. Resolution C. Encapsulation D. Polymorphism
18. Which of the following is not a possible value of the expression $4 + 6 \div 2 - 1$?
A. 4 B. 5 C. 6 D. 10
19. Which of the following is not a feature of UML?
A. Use case diagrams B. Class diagrams
C. Dataflow diagrams D. Sequence diagrams
20. The Pareto principle is traditionally applied during which phase of software development?
A. Analysis B. Design C. Implementation D. Testing
21. Which of the following is a LIFO structure?
A. Array B. Stack C. Queue D. Tree

22. If a queue contained the entries w, x, y, z (from head to tail), which of the following would be the contents after two entries were removed and the entry r was inserted?

- A. w, x, r B. y, z, r C. r, y, z D. r, w, x

23. Given the relation X below

X:	A	B	C
	2	5	7
	3	3	3
	4	3	2
	5	2	8

what value will be extracted by the following query?

TEMP ← SELECT from X where B > C

RESULT ← PROJECT A from TEMP

- A. 2 B. 3 C. 4 D. 5

24. Which of the following features within a DBMS is not provided to maintain database integrity?

- A. Concurrent transaction processing B. Log
C. Locking protocol D. Commit points

25. If the longest path in a binary tree contained exactly four nodes, what is the maximum number of nodes that could be in the entire tree?

- A. 4 B. 7 C. 15 D. 31

試題隨卷繳回