

國立嘉義大學 101 學年度基礎學科學力競賽試題卷

科目：計算機概論

題型：選擇題

配分：100%

1. A step-by-step solution to a problem is called \_\_\_\_\_.  
(A) hardware (B) an operating system (C) a computer language  
(D) an algorithm
2. \_\_\_\_\_ is multiprogramming with swapping.  
(A) Partitioning (B) Paging (C) Demand paging  
(D) Queuing
3. \_\_\_\_\_ is a multiprogramming method in which multiple programs are entirely in memory with each program occupying a contiguous space.  
(A) Partitioning (B) Paging (C) Demand paging  
(D) Demand segmentation
4. A process in the 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
5. A program becomes a \_\_\_\_\_ when it is selected by the operating system and brought to the hold state.  
(A) Job (B) process  
(C) Deadlock (D) partition
6. \_\_\_\_\_ can occur if a process has too many resource restrictions.  
(A) Starvation (B) Synchronization (C) Paging  
(D) Deadlock
7. \_\_\_\_\_ is a process in which an algorithm calls itself.  
(A) Insertion (B) Searching (C) Recursion  
(D) Iteration
8. The \_\_\_\_\_ level of a three-level DBMS architecture defines the logical view of the data.  
(A) External (B) conceptual (C) Internal  
(D) Physical
9. Of the various database models, the \_\_\_\_\_ model is the most prevalent today.  
(A) Hierarchical (B) network (C) relational  
(D) linked list
10. Each column in a relation is called \_\_\_\_\_.  
(A) an attribute (B) a tuple (C) a union  
(D) an attitude
11. In asymmetric-key cryptography, there is (are) only \_\_\_\_\_ key(s).  
(A) one secret (B) one private and one public (C) either A or B

12. Which physical topology uses a hub or switch?  
(A) Bus (B) ring  
(C) Star (D) all of the above
13. The TCP/IP model has \_\_\_\_\_ layers.  
(A) Five (B) six (C) seven  
(D) any of the above
14. If the exponent in Excess\_127 is binary 10000101, the exponent in decimal is  
(A) 6 (B) 7 (C) 8  
(D) 9
15. For an 8-bit allocation, the largest decimal number that can be represented in two's complement form is.  
(A) 8 (B) 127 (C) 128  
(D) 256
16. When you want to store music in a computer, the audio signal must be \_\_\_\_\_.  
(A) Sampled (B) quantized (C) coded  
(D) all of the above
17. The precision of the fractional number stored in a computer is defined by the  
(A) Sign (B) exponent (C) mantissa  
(D) any of the above
18. In an Excess conversion, we \_\_\_\_\_ the bias number to the number to be converted.  
(A) Add (B) Subtract (C) multiply  
(D) divide
19. Find how many times the statement in the following code segment in C is executed.  

```
A=5  
do  
{  
    statement;  
    A=A+1;  
} while(A<10)
```

  
(A) 4 (B) 5 (C) 6  
(D)  $\infty$
20. In a set with 128 symbols, each symbol requires a bit pattern length of \_\_\_\_\_ bits.  
(A) 128 (B) 5 (C) 6  
(D) 7

〈背面尚有試題，請翻頁〉

- 21.** According to the von Neumann model, \_\_\_\_\_ stored in memory.  
(A) only data are (B) only programs are  
(C) data and programs are (D) none of the above
- 22.** In the von Neumann model, the \_\_\_\_\_ subsystem serves as a manager of the other subsystems.  
(A) ALU (B) input/output (C) memory  
(D) control unit
- 23.** Which model is the basis for today's computers..  
(A) Leibnitz (B) von Neuman (C) Pascal  
(D) Charles Babbage
- 24.** The data in \_\_\_\_\_ is erased if the computer is power down.  
(A) RAM (B) ROM (C) a tape drive  
(D) a CD-ROM
- 25.** In the \_\_\_\_\_ method for synchronizing the operation of the CPU with an I/O device, a large block of data can be passed from an I/O device to memory directly.  
(A) programmed I/O (B) interrupt-driven I/O  
(C) DMA (D) isolated I/O

〈試題作答結束〉