

一、 True / False

1. A relational database table is composed of schema and queries.
2. Audio data is often represented on a computer by sampling the continuous signal that represents a sound wave.
3. The JPEG image format is best used for line art, while the GIF format is superior for photographic images.
4. A logic diagram and a truth table are equally powerful techniques for describing the behavior of a circuit.
5. In a von Neumann architecture, the devices that store information and the devices that process information are the same.
6. A Turing test is a theoretical approach to determining if a computer system is intelligent.
7. A disk-scheduling algorithm determines how the outstanding requests for disk access will be satisfied.
8. Strong typing is a mechanism by which a high-level program is entered into a computer.
9. A selection sort compares adjacent elements and swaps them if they are in the wrong order.
10. Multiprogramming is the technique of allowing more than one programmer to work on a single computer at the same time.

二、 Multiple Choice(單選題) ※請將單選題作答於試卷內之「選擇題作答區」。

1. Which of the following is a common database language?
 - A. SQL
 - B. key
 - C. field
 - D. query

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E. schema

2. Which of the following terms best describes the concept of abstraction?

- A. exposing difficulty
- B. hiding quantity
- C. exposing distance
- D. hiding details
- E. exposing representation

3. Which language is built into the electrical circuitry of a computer?

- A. assembly language
- B. machine language
- C. compiled language
- D. high-level language
- E. interpreted language

4. Which of the following is used to specify a set of adjacent elements in a spreadsheet?

- A. what-if
- B. range
- C. formula
- D. cell
- E. circular reference

5. What is the purpose of a compiler?

- A. translate machine language into assembly language
- B. translate high-level language into machine language
- C. translate FORTRAN into COBOL
- D. translate machine language into FORTRAN
- E. translate application programs into system programs

6. Which of the following is an IP program that can be used to test whether a particular network computer is active and reachable?

- A. ping
- B. telnet

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- C. port
- D. TCP/IP
- E. SMTP

7. What does pulse-code modulation (PCM) describe?

- A. the behavior of a continuous analog signal
- B. the behavior of a digital signal, which jumps between two extremes
- C. the behavior of a compressed signal
- D. the loss of data as a signal degrades
- E. the loss of data due to compression

8. In general, how many things can be represented by n bits?

- A. $2n$
- B. $2n + 1$
- C. n^2
- D. n^4
- E. 2^n

9. Which of the following is not a raster-graphics format?

- A. BMP
- B. GIF
- C. JPEG
- D. PNG
- E. Flash

10. Which of the following is a device that performs a basic operation on electrical signals?

- A. logic symbol
- B. truth table
- C. gate
- D. circuit
- E. S-R latch

11. Which of the following contains the instruction register?

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- A. control unit
- B. arithmetic/logic unit
- C. auxiliary storage device
- D. RAM
- E. ROM

12. Which of the following is the primary mechanism for representing the content of a Web page?

- A. HTML
- B. tag
- C. attribute
- D. cookie
- E. hypertext

13. Which of the following describes a named subprogram in a class?

- A. object
- B. attribute
- C. field
- D. method
- E. scenario

14. Which of the following is executed by the Java Virtual machine?

- A. procedure
- B. interpreter
- C. Bytecode
- D. paradigm
- E. compiler

15. Which of the following can be directed or undirected?

- A. list
- B. stack
- C. queue
- D. binary search tree
- E. graph