

靜宜大學 97 學年度碩士班招生考試試題

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系所：資訊碩士在職專班

科目：計算機概論

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壹、選擇題：(40%) 說明：這部分共有 20 題，每題 2 分，答錯不倒扣。

1. A running program is called a _____, which reside it main memory during execution.
(1) process (2) procedure (3) flow (4) job
2. In extended ASCII, a _____ of the bit pattern for regular ASCII code.
(1) 1 bit is added to the right (2) 0 bit is added to the right
(3) 0 bit is added to the left (4) 1 bit is added to the left
3. Where is the cache memory placed in a computer?
(1) between disk and CD-ROM (2) between CPU registers and ALU
(3) between CPU and main memory (4) between printer and disk
4. Which representation method for signed integers is the most popular one used by current computers?
(1) sign-and-magnitude (2) 1's complement (3) 2's complement (4) none of the above
5. _____ is a situation in which a process is unable to execute due to there is too many restrictions on resources allocation.
(1) starvation (2) paging (3) deadlock (4) waiting
6. A bitmap image is divided into a matrix of _____.
(1) pixels (2) objects (3) nodes (4) points
7. _____ is the smallest unit of data that can be stored and accessed in a computer.
(1) byte (2) record (3) bit (4) nibble
8. _____ is a method of allocating fixed time slots to processes running on a computer such that it appears to the user that all of the processes are running simultaneously.
(1) time-consuming (2) time-slicing (3) time-ticking (4) segmentation
9. Which one is not an optical storage device?
(1) DVD-RAM (2) CD-ROM (3) Disk (4) CD-RW
10. Which one is not a general-purpose computer?
(1) a desktop PC (2) a notebook PC
(3) a computer embedded in ATM machine (4) a blade server

11. Among these wireless technologies, the speed of Bluetooth is _____.
 (1) 11 Mbps (2) 54 Mbps
 (3) 1 Mbps (4) 384 Kbps
12. A _____ is a set of rules design to facilitate communication. In both human and computer interaction, they are essential.
 (1) grammar (2) protocol
 (3) user interface (4) system software
13. The ISO/OSI reference model has _____ layers.
 (1) six (2) seven
 (3) eight (4) nine
14. What is the standard port number for HTTP ?
 (1) 1 (2) 21
 (3) 50 (4) 80
15. What Internet protocol is used to dynamically assign IP address
 (1) TCP (2) DHCP
 (3) HTTP (4) DNS
16. Which of the following is an example of a URL?
 (1) www.pu.edu.tw (2) 140.128.5.2
 (3) HTTP (4) 1110111010111010111101
17. Which of the following is not an Internet-related protocol?
 (1) HTTP (2) HTML
 (3) TCP (4) FTP
18. Which of the following is not a valid DBMS?
 (1) SQL server (2) Oracle
 (3) C++ (4) DB2
19. A queue implements a FIFO storage method. Here, FIFO is an acronym for:
 (1) first in, first out (2) first in, first order
 (3) first in, final out (4) first in, final order
20. A(n) _____ is a data structure that consists of contiguous memory locations.
 (1) Array (2) Stack
 (3) Queue (4) All of the above

貳、填充題: (30%) 說明: 這部分共有 15 題, 每題 2 分, 答錯不倒扣。

1. A small OS program called _____, which gets the program into memory for execution.
2. There are four necessary conditions for deadlock: _____, resource holding, no preemption, and circular waiting.
3. In the von Neumann model, the ALU subsystem performs _____ and logical operations.
4. The term "MP3" stands for MPEG-1 _____ Layer-3.
5. In IEEE-754, a floating point number comprises 3 parts: sign, _____, and mantissa.
6. In computers with Von Neumann architecture, a CPU comprises 3 parts: registers, ALU, and _____ unit.
7. In visual programming and design tools, the concept of "WYSIWYG" is emphasized. The term "WYSIWYG" stands for What You See is What You _____.
8. A software tool called _____ is used for accessing hypermedia contents on the Internet.
9. In ISO/OSI reference model, the transport layer is responsible for a guaranteed delivery of data. It uses data units called _____.
10. One way of classifying networks is in terms of the proximity and size of the network. A(n) _____ is a relatively small number of computers connected together in close proximity, usually within a building.
11. Every physical device connected to a network must have a _____ card.
12. The most popular LAN technology is _____, and token ring is another LAN technology.
13. _____ is the protocol for sending and receiving data on the Web.

14. A _____ is a collection of logically related information used in an application to create meaningful output for the end user.

15. A _____ is a memory cell that points to another memory cell location.

參、簡答計算題: (30%) 說明: 這部分共有 6 題, 每題 5 分, 答錯不倒扣。

1. 已知某一個整數利用 sign-and-magnitude 方式, 存在 8-bit allocation 的格式是 11111100, 回答下列問題

(a) 此數的十進位值為 _____ (2%)

(b) 利用 2's complement 方式, 存在 16-bit allocation 的格式是 _____ (3%)

2. Show the result of the following operation, assume that the numbers are stored in 16-bit 2's complement representation. Show the result in hexadecimal notation.

x712A + x9F00

3. 請簡單描述以下 Java packages 的用途

(a) Swing (2%)

(b) Xerces (2%)

(c) SQL (1%)

4. List three LAN topologies.

5. What are the first three layers of ISO/OSI reference model?

6. List three tools to design WWW pages.