

國立臺北護理學院九十六學年度碩士班招生

資訊管理系碩士班

計算機概論試題

注 意	1.本試題共二頁。 2.單選題請依題號次序於<u>答案卡</u>上作答。 3.複選題、問答題請標明題號，依序於<u>答案卷</u>上作答。
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I. 選擇題：每題 3 分，共 60 分。

(第 1 至 15 題為單選題，標準答案：DBBDC-CBDDC-DCABD)

1. Which one of the following JAVA codes will be compiled without warning or error?

- (1) float f=1.3;
 (2) char c="a";
 (3) boolean b=null;
 (4) int i=10;

- (A) 1 (B) 2 (C) 3 (D) 4

2. What will happen if you try to compile and run the following JAVA code?

```
public class Q {
    public static void main(String argv[]){
        int anar[]=new int[]{1,2,3};
        System.out.println(anar[1]);
    }
}
```

- (A) 1
 (B) 2
 (C) Error: anar is referenced before it is initialized
 (D) Error: size of array must be defined

3. Which one of the following is not keyword or reserved word in Java?

- (1) if
 (2) then
 (3) goto
 (4) while

- (A) 1 (B) 2 (C) 3 (D) 4

4. You wish to segment your LAN into multiple broadcast domains. Which technology method should you implement in order to do this?

- (A) Cut-through switching (B) Fragment-free switches
 (C) Store-and-forward switching (D) Virtual LANs

5. Given that you have a class B IP address network range, which of the subnet masks below will allow for 100 subnets with 500 usable host addresses per subnet?

- (A) 255.255.0.0 (B) 255.255.224.0 (C) 255.255.254.0 (D) 255.255.255.0

6. Which one of the following varieties of NAT utilizes different ports to map multiple IP addresses to a single globally registered IP address?

- (A) Static NAT (B) Port loading (C) NAT Overloading (D) Dynamic NAT

7. On the topic of VLSM, which one of the following statements best describes the concept of the route aggregation?

- (A) Deleting unusable addresses through the creation of many subnets.
 (B) Combining routes to multiple networks into one supernet.
 (C) Reclaiming unused space by means of changing the subnet size.
 (D) Calculating the available host addresses in the AS.

8. An operating system that allows a single user to run two or more applications at the same time is called?

- (A) multiprocessor (B) multi-user (C) multithreading (D) multitasking

9. Which one of the access control list statements below will deny all telnet connections to subnet 10.10.1.0/24?

- (A) access-list 15 deny telnet any 10.10.1.0 0.0.0.255 eq 23
 (B) access-list 115 deny udp any 10.10.1.0 eq telnet
 (C) access-list 15 deny tcp 10.10.1.0 255.255.255.0 eq telnet
 (D) access-list 115 deny tcp any 10.10.1.0 0.0.0.255 eq 23

10. Which one of the following is the shortest notation of IPv6 address 2080:0000:0000:0000:0008:0000:0000:200C?

- (A) 2080: : 8: : 200C
 (B) 2080: : 0:8:0:0:200C
 (C) 2080: : 8:0:0:200C
 (D) 2080:0:0:0:8: : 200C

11. Ipv4 has a range of private IP addresses to allow organizations to use freely, without consulting with any external IP address assigning authority. Which Ipv6 address type achieves the same purpose?

- (A) Global aggregate addresses
 (B) Ipv4 compatible Ipv6 addresses
 (C) Link Local addresses
 (D) Site Local addresses

12. Which one of the following technologies about product-identification is applied by Wal-Mart to replace bar-code?
 (A) 2D bar-code technology
 (B) ISBN code
 (C) RFID technology
 (D) Sensor network technology
13. Which of the following features in object-oriented programming provides the ability of a program to ignore the details of an object's class and work at a more generic level when appropriate?
 (A) abstraction (B) extraction (C) inheritance (D) polymorphism
14. Which of the following SQL keywords is used to add zero or more rows (formally tuples) to an existing table?
 (A) DELETE (B) INSERT (C) MERGE (D) UPDATE
15. Which of the following SQL keywords is used to identify which columns are used to sort the resulting data?
 (A) GROUP BY (B) HAVING BY (C) JOIN BY (D) ORDER BY

(第 16 至 20 題為複選題，標準答案：16-AD,17-ADE,18-BDE,19-ABD,20-DE)

16. You're setting up a printer on your Windows Server 2003 computer. The computer will be used as a print server on your network. You plan to use the print device that's currently connected to the network as a stand-alone print device. Which of the following types of printer should you add to the print server? (Select two)
 (A) Local
 (B) Network
 (C) Remote
 (D) Shared
17. There are 2 switches in the Lab's network, with no routers. Ports 1, 2 & 3 are assigned to VLAN 1 in SW11 and SW2 and Ports 4, 5 & 6 are assigned to VLAN 2 in both switches. These two switches are connected together via a trunked link. Which of the conditions below would verify trunk and VLAN operation? (Select three)
 (A) Port 1 host on SW1 can ping Port 2 host on SW1.
 (B) Port 1 host on SW1 can ping Port 4 host on SW1.
 (C) Port 1 host on SW1 can not ping Port 2 host on SW2.
 (D) Port 4 host on SW2 can not ping Port 1 host on SW1.
 (E) Port 4 host on SW2 can ping Port 5 host on SW1.
18. Which of the following addresses can be assigned to a host when using a subnet mask of 255.255.254.0? (Select three)
 (A) 141.120.4.0
 (B) 146.54.3.0
 (C) 175.123.3.255
 (D) 26.135.2.255
 (E) 52.145.7.0
 (F) 117.35.36.0

19. Which of the following statements are true about the characteristics of VLANs? (Select three)
 (A) VLANs logically divide a switch into multiple, independent switches at Layer 2.
 (B) Trunk links can carry traffic for multiple VLANs.
 (C) VLAN significantly increases traffic due to added trunking information.
 (D) A VLAN can span among multiple switches.
 (E) VLANs typically increase the number of switches needed.
 (F) VLANs typically decrease the number of switches needed.
20. You have a class B network with a 255.255.255.0 mask. Which of the following statements are true of this network? (Select two)
 (A) There is one usable network.
 (B) There are 24 usable hosts per subnet.
 (C) There are 50 usable subnets.
 (D) There are 254 usable hosts per subnet.
 (E) There are 254 usable subnets.
 (F) There are 256 usable hosts per subnet.

II. 問答題：

- Please explain the concept of the Porter's five competitive forces. (20%)
- Please explain the connection interface types for the following five cables. (20%)
 Copper Straight-through、Copper Cross-over、Rollover、Serial DCE and DTE、Fiber