

九十一學年度 資訊系統與應用研究 (所) 2 組碩士班研究生招生考試

資訊系統應用 科號 2901 共 2 頁第 1 頁 請在試卷【答案卷】內作答

1. (20%)

Answer the following questions by TRUE or FALSE:

- (a) Data transfer rates should not vary from one device to another.
- (b) When a file is deleted from a disk, it is usually not erased but merely marked as deleted.
- (c) On a network, data is transmitted in small groups called packets.
- (d) A server is a networking device that stores the addressing information of each computer on each of the LANs it connects.
- (e) In a cable network, the switching station is where the cable TV network connects to the Internet.
- (f) The internal structure of the World Wide Web is based on the Hypertext markup language.
- (g) Many businesses set up firewalls to control access to their networks by persons using the Intranet.
- (h) A file format is a standardized method of encoding data for storage.
- (i) Vector-based programs are described as being resolution-dependent.
- (j) One goal of structured programming is the elimination of goto statements.

2. (18%)

Briefly answer the following questions:

- (a) List and describe the benefits that networks provide.
- (b) If digital telephone lines replace analog telephone lines, how will data communications be simplified?
- (c) Briefly describe what is meant by peer-to-peer networks.
- (d) Briefly describe what is meant by digital convergence.
- (e) Explain how hypermedia allows a user to navigate through digital content without necessarily following a linear sequence.
- (f) What does the term interactive media mean?

3. (12%)

Give a short definition of the following terms:

- (a) QBE
- (b) Sans serif
- (c) Booting
- (d) De-fragmentation.

九十一學年度 資訊系統與應用研究 (所) 21 組碩士班研究生招生考試

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4. (8%)

Describe four steps in a machine cycle where the CPU executes an instruction.

5. (7%)

Define SQL and describe the advantages of using SQL over other query statements.

6. (10%)

Compare cooperative multitasking (CM) and preemptive multitasking (PM) and describe when CM and PM are used.

7. (5%)

In what areas of our lives do you think we will see more sophisticated graphics?

8. (10%)

Consider a distributed system (such as Internet) with two sites, A and B. Consider whether site A can distinguish among the following:

- B goes down.
- The link between A and B goes down.
- B is extremely overloaded and its response time is 100 times longer than normal.

What implications does your answer have for recovery in distributed systems?

9. (10%)

The list of all passwords is kept within the operating system. Thus, if a user manages to read this list, password protection is no longer provided. Suggest a scheme that avoids this problem.