

**I. Choose the one alternative that best completes the statement (60%)**

1. Which of the following is often used to install a backdoor program?  
A) boot-sector virus B) logic bomb C) macro virus D) Trojan horse
2. A virus-like program called a \_\_\_\_\_ can spread across a network with no user interaction.  
A) logic bomb B) worm C) script D) Trojan horse
3. Which of the following is NOT an approved top-level domain?  
A) .htm B) .edu C) .gov D) .com
4. Which of the following is the correct way to indicate a URL?  
A) http:www.prenhall.com B) http//www.prenhall.com C) http://www.prenhall.com  
D) http.www.prenhall.com
5. Which of the following statements is FALSE?  
A) A single bit can represent one letter.  
B) When referring to computers, every number, letter, or special character consists of a unique combination of 8 bits.  
C) Everything a computer does is broken down into a series of 0s and 1s.  
D) Bit is short for binary digit.
6. Eight binary digits is equal to:  
A) 1 byte. B) 100 bytes. C) 1 bit. D) 1 word.
7. Which of the following CANNOT be represented by a single byte?  
A) letter B) symbol C) number D) small equation
8. Every software program has system requirements that specify the recommended standards. Which of the following does NOT have a recommended standard?  
A) operating system B) printer C) RAM D) processor
9. A(n) \_\_\_\_\_ at the end of the http in a URL indicates that the Web site is secure. A) padlock B) "s"  
C) chain lock emblem D) VeriSign logo
10. To transform MP3 files into another type of audio file, such as WAV, you would use: A) audio recording software. B) format conversion software. C) encoding software. D) an MP3 file editor.

國立中正大學 110 學年度碩士班招生考試試題

科目名稱：計算機概論

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系所組別：會計與資訊科技學系-乙組

11. CPU speed is measured in:  
A) kilohertz or megahertz. B) megabytes. C) kilobytes per second. D) megahertz or gigahertz.
12. Which of the following is responsible for coordinating the activities of all the computer's components?  
A) the control unit B) the machine cycle C) the kernel memory D) the ALU
13. Which of the following is NOT a factor when determining how fast your CPU can perform? A) RAM  
B) cache C) front side bus D) clock speed
14. A \_\_\_\_\_ provides intelligence that supplements the user's own intellect.  
A) knowledge-expert system B) skill-set system C) transaction processing system D) knowledge-based system
15. In an organization, a data mart pertains to:  
A) a single department. B) related departments. C) similar job descriptions. D) the entire organization.
16. A(n) \_\_\_\_\_ check ensures that all fields defined as required have data entered into them.  
A) accuracy B) consistency C) alphabetic D) completeness
17. The data dictionary defines all the following EXCEPT:  
A) the query language to be used. B) the database name. C) the data types to be used. D) the length of each field.
18. The protocol responsible for sending e-mail along the Internet to its destination is called: A) SMTP. B) IM. C) SSL. D) ISPS.
19. \_\_\_\_\_ encryption is the most commonly used type of encryption on the Internet. A) PGP B) Public-key C) SSL D) Private-key
20. A GPU is a:  
A) special type of optical media for storing graphics and images. B) type of external hard drive.  
C) processor specifically designed to handle computational work associated with 3-D graphics and image processing. D) type of video card.

**II. Match the following terms (15%)**

1. Match the following validation types to their purpose or example.

- |                        |                                                                                      |
|------------------------|--------------------------------------------------------------------------------------|
| I. range check         | A. used when a required state code must be entered in an address input form          |
| II. completeness check | B. ticket prices from \$15 to \$35                                                   |
| III. consistency check | C. used for a name field                                                             |
| IV. alphabetic check   | D. used for an hourly pay field                                                      |
| V. numeric check       | E. used when an e-mail address must be entered twice to make sure both entries match |

2. Match the following terms to their definition.

- |                          |                                            |
|--------------------------|--------------------------------------------|
| I. motherboard           | A. created when virtual memory is in use   |
| II. ALU                  | B. primary circuit board                   |
| III. nonvolatile storage | C. temporary storage                       |
| IV. page file            | D. performs logic and comparison decisions |
| V. volatile storage      | E. CDs and hard drives, for example        |

3. Match the following protocols to their function.

- |          |                                                        |
|----------|--------------------------------------------------------|
| I. IP    | A. sends e-mail across the Internet                    |
| II. SMTP | B. transfers HTML data from servers to browsers        |
| III. FTP | C. sends data between computers on the Internet        |
| IV. HTTP | D. provides for error-checking and resending lost data |
| V. TCP   | E. enables files to be uploaded and downloaded         |

**III Questions & Answers (25%)**

1. Computer memory is usually grouped in bytes, which consist of 8 bits each. How many different values can be represented using a byte? How many different values can be represented using two bytes? (6%)
2. What is the difference between a compiler and an interpreter? What characteristics of an interpreter make it better suited for executing JavaScript programs? (6%)
3. Although Ethernet technology is effective for Local Area Networks (LANs), it is not conducive to Wide Area Networks (WANs). Describe why this is the case. (5%)
4. Please describe all steps of system development life cycle?(8%)

