1. Computers process __________. (2%)  
   a. data into information  
   b. information into data  
   c. data into instructions  
   d. instructions into data  

2. Each of the following is a commonly used output device except _______. (2%)  
   a. a printer  
   b. a monitor  
   c. a scanner  
   d. speakers  

3. Power users typically work with __________, combining text, graphics, audio, and video into one application. (2%)  
   a. multimedia  
   b. multilateral  
   c. multidimensional  
   d. multitask  

4. People around the world use the Internet to __________. (2%)  
   a. communicate with and meet other people  
   b. shop for goods and services  
   c. access sources of information and leisure  
   d. all of the above  

5. The term __________ refers to online or Internet-based illegal acts. (2%)  
   a. malicious-logic program  
   b. computer crime  
   c. cybercrime  
   d. system failure  

6. Some viruses are hidden in __________, which are instructions saved in an application such as a word processing or spreadsheet program. (2%)  
   a. macros  
   b. logs  
   c. cookies  
   d. spikes
7. When users purchase software, a single-user license agreement permits users to do any of the following **except** _______ . (2%)
   a. install the software on only one computer
   b. rent or lease the software
   c. make one copy of the software as backup
   d. give or sell the software to another individual if the software is removed from the user’s computer first

8. _______ provides a way to store data in an organized fashion. (2%)
   a. A Web browser
   b. Word processing software
   c. Database software
   d. Spreadsheet software

9. With _______ software, a mobile user can create and deliver a presentation to a large audience by connecting a mobile computer or device to a video projector that displays the presentation on a full screen. (2%)
   a. presentation graphics
   b. spreadsheet
   c. word processing
   d. database

10. Each time a user starts a computer, the operating system _______ (copies) from the computer’s hard disk into memory. (2%)
    a. prints
    b. scrolls
    c. loads
    d. saves

11. (C7)之15的補數為何？(3%)

12. 寫出下列後置表示法(postfix notation)運算式之中置表示法(infix notation)與前置表示法(prefix notation)：(※數值均為一位數) (4%)
   \[ 8 \ 7 \ 2 \ 9 \ 5 \ - \ ^* + 6 \ 3 / 4 * - \]
13. Describe and compare three kinds of computer memory management methods. (9%)

14. Write down a computer program, in any programming language, which can
   a. Read in a data file of 1000 items from a secondary storage. (2%)
   b. Have these items be sorted in decreasing order. (10%)
   c. Store the sorted data into the secondary storage. (2%)
   d. Describe and analyze your approach. (10%)

15. What is the video resolution and printer resolution and give example for there common setting? (5 %)

16. What is the pipelining technology and how does it work? (5%)

17. A HD has 4 discs, 2 sides/disc, 79,656 tracks/side, 63 sectors/track, and store 512 byte/sector, what is the capacity of this HD? (5%)

18. What is the global positioning system (GPS) and how does it work? (5 %)

19. Describe and illustrate the network topologies (5%)

20. What is a network transmission protocol and draw a diagram to illustrate the relationship among each layer (9%)