1. Terminologies Description (Please describe them in detail)：　　　(20%)

   (a.) ISO OSI reference model.
   (b.) FDM (frequency-division multiplexing).
   (c.) DHCP protocol.
   (d.) Multiprocessing and Multitasking.
   (e.) I/O polling and Interrupt handling.

2. The transmission media for computer networks can be either coaxial copper cable or fiber-optic cable. Please describe the difference between them with respect to *bandwidth*, *inductance*, *speed*, and *attenuation*.　　　(20%)

3. Please draw a diagram to illustrate the relations among Web server, Web browser, HTTP protocol, HTTPS protocol, Proxy server, and HTML.　(20%)

4. The cache technology is used in modern CPUs to speed up their execution speed. Please describe its operation and the situations that will affect its performance.　　　(20%)

5. Write a program that inputs a series of nonnegative integers terminated by -1 and, in the meantime, find their largest number for printing out. For example, inputs 35, 78, 56, 47, 26, 59, 57, …,-1 will print out "The largest number is 78". Please use **for loop**, **while loop**, and **do while loop** to implement the program respectively and use only one loop in the program.　　　(20%)