1. (40 %) Please explain as detail as possible for the following terminologies:
(a) VRML (for computer language)
(b) USB (for computer peripheral)
(c) DNS (for networking)
(d) API (for programming)
(e) ActiveX (for programming)

(f) Cache memory
(g) Encryption
(h) Local variable
(i) Bioinformatics
(j) Picture archiving and communication system (PACS)

2. (15 %) Please explain Redundant Array of Independent Disks (RAID) and discuss the advantages of this technique.

3. (15%) Please explain the characteristics of Object-Oriented Programming (OOP) and give an application example to show the advantages of OOP.

4. (15 %) Please write a function by using your familiar programming language (or pseudo code) to return the amount of matching numbers between two lists of numerical numbers with different lengths. (i.e. input1: a list of 10 numerical numbers, input2: a list of 7 numerical numbers, output1: matching numbers between input1 and input2, output2: the amount of matching numbers) (Note that no repeated number in each list.)

5. (15 %) Clinical physicians in National Cheng Kung University Hospital wish to establish a portable **Electronic Patient Record** (電子病歷) system via wireless communication to input the patient information (such as body temperature) or acquire the patient history from the patient bed side. Could you suggest a system by using hand held device (such as pocket PC) with necessary peripherals, operation system, and communication facilities for this purpose? You can draw a block diagram of your suggested system and give your design considerations.