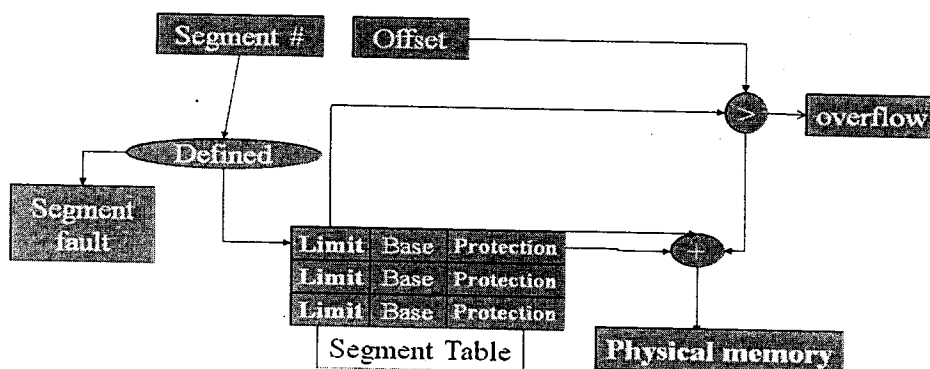1. In the internet, there are three types of addresses, domain name, IP address and MAC address. What kind of protocols are employed to translate the three types of addresses and How to do the translation?(20%)

2. Please describe the following memory management (15%)

3. Please describe the two network protocols, CSMA/CA(Carrier Sensing Multiple Access/Collision Avoidance) and CSMA/CD(Carrier Sensing Multiple Access/Collision Detection)? What is their difference and similarity? (15%)

4. Please describe what the difference is between thread and process? And please describes how many threads are there and how to fork new thread after the following program is run. (20%)

```
class   Worker1 extends Thread
{
    public void run() {
        System.out.println("I am a Worker");
    }
}
public class First
{
    public static void main(String args[]) {
        Worker1 runner = new Worker1();

        runner.start();

        System.out.println("I am Boss");
    }
}
```

5. Please describe the following terminologies in details: (30%)
   甲、 Shortest Job Time First (6%)
   乙、 Dead lock and Starvation (6%)
   丙、 Bluetooth(6%)
   丁、 I/O Polling and I/O Interrupt (6%)
   戊、 Could Computing (6%)