Each question 20%

1. a) Explain the function of TCP and IP

    b) Why are network and subnet mask needed?

    c) If this is a C class networks, how many ones are there in the network part

2. a). Explain the propose of operating system in detail

    b). Explain the function of multitasking and multiprocessor

3. Describe in detail the major components in computer system. Giving some examples for each component if possible

4. Giving a sorting algorithm each which time complexion is $O(n\log^n)$ and $O(n^2)$. Explain the method of binary search and its efficiency.

5. a).BCNF (normalization)

    b) data integrity

    c). data independent

    d). E-R model