

1. Give the algorithm and discuss the average case time complexity for *Quicksort*. (15%)
2. What is the difference between information and data? (10%)
3. What are multiprogramming and multitasking systems? (10%)
4. List and explain the advantages of using computer. (10%)
5. List three different topologies of network, and discuss their difference. (10%)
6. What are the functions of instruction register, address register, storage register, and accumulator? (10%)
7. What two parts does a machine cycle consist of? What are the basic operations performed during each part? (15%)
8. Give an example to explain the *Belady's* anomaly. (10%)
9. What are the basic components of a computer? Construct a graph to represent their relationship. (10%)