

1. Please explain the followings (50 %)

- |                             |                    |
|-----------------------------|--------------------|
| (a) DNS server              | (f) Deadlock       |
| (b) Client/Server Computing | (g) Stack          |
| (c) Cache Memory            | (h) URL            |
| (d) HTTP                    | (i) Interrupt      |
| (e) Seek time               | (j) Boot strapping |

2. How does time-sharing work? Is there any performance overheard while process switch occurs? (10%).

3. The CPU uses repeating machine cycles to execute instructions in the program, one by one, from beginning to end. The machine cycles at least consists of three steps. Please explain which three and their functionalities. (15%).

4. Write an algorithm that reverses the elements of an array so that the last element becomes the first, the second to the last becomes the second, and so forth. (10%)

5. Draw diagrams to explain how to delete and insert data nodes in a linked list. (15%).