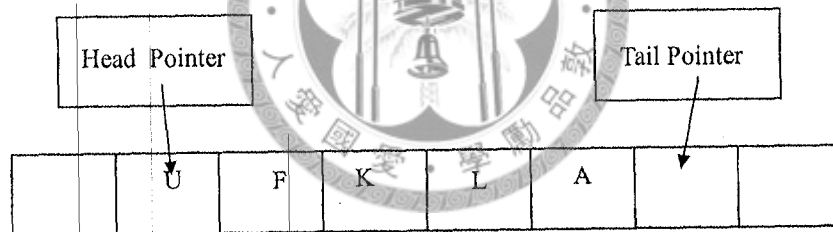


※ 注意：請於答案卷上依序作答，並應註明作答之題號。

1. (a) Please explain what a time-sharing system is. (5points)
(b) Identify a situation in a time-sharing system in which a process does not consume the entire time slice allocated to it. (10points)
2. Please explain what File Allocation Table (FAT) is. (5points)
3. List in chronological order the major events that take place when a process is interrupted. (15 points)
4. List the four layers in the Internet software hierarchy and identify a task performed by each layer. (20 points)
5. List the two basic differences between TCP and UDP. (5points)
6. (a) Show the hexadecimal representation (32 bits) of integer 10231. (5points)
(b) Show the hexadecimal representation (32 bits) of integer -10231 in two complement format. (5points)
7. Suppose a queue implemented in a circular fashion is in the state shown in the figure below. Draw a diagram showing the structure after the letters G and R are inserted, three letters are removed, and the letters D and P are inserted (15 points)



8. Draw a binary tree that you could use to store the list R, S, T, U, V, W, X, Y, and Z for further searching. (15 points)