Quiz 2

Q1. What is the Mutual Exclusion?

Q2. Describe the Strict Alternation as a solution for Mutual Exclusion.

```
while (TRUE) {
    while (turn != 0)        /* loop */ ;
    critical_region( );
    turn = 1;
    noncritical_region( );
}
```

(a)

```
while (TRUE) {
    while (turn != 1)        /* loop */ ;
    critical_region( );
    turn = 0;
    noncritical_region( );
}
```

(b)

Figure 1 A proposed solution to the CR problem. (a) Process 0, (b) Process 1

Q1. What is the Mutual Exclusion?

Q2 Explain the Peterson's solution for Mutual Exclusion.

```
#define FALSE  0
#define TRUE   1
#define N      2                    /* number of processes */

int turn;                           /* whose turn is it? */
int interested[N];                  /* all values initially 0 (FALSE) */

void enter_region(int process);     /* process is 0 or 1 */
{
     int other;                     /* number of the other process */

     other = 1 - process;           /* the opposite of process */
     interested[process] = TRUE;    /* show that you are interested */
     turn = process;                /* set flag */
     while (turn == process && interested[other] == TRUE) /* null statement */ ;
}

void leave_region(int process)      /* process: who is leaving */
{
     interested[process] = FALSE;   /* indicate departure from critical region */
}
```

Figure 2: Peterson' solution for achieving mutual exclusion