

Quiz 2

Q1. Strict Alternation; describe in detail.

```
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)

Q2. Peterson's solution; describe in detail.

```
#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 */
}
```