

CS503 Operating Systems

Quiz 1 (10 minutes)

Name:

Email:

(1) In no more than three sentences describe the problem with the following Xinu code.

(2) Show how to fix the problem in the code listing below.

```
/* chprio.c - chprio */

#include <xinu.h>

/*-----
 * chprio - Change the scheduling priority of a process
 *-----
 */
pri16 chprio(
    pid32      pid,          /* ID of process to change */
    pri16      newprio      /* new priority */
)
{
    intmask mask;          /* saved interrupt mask */
    struct procent *prptr; /* ptr to process' table entry */
    pri16 oldprio;        /* priority to return */

    mask = disable();
    if (isbadpid(pid)) {
        restore(mask);
        return (pri16) SYSERR;
    }
    prptr = &proctab[pid];
    oldprio = prptr->prprio;
    prptr->prprio = newprio;
    restore(mask);
    return oldprio;
}
```