CPSC 213

Solutions to Review Exercises

B. Material after the Midterm

Question 1

I'm running!		I'm running!	
Me too!		Me too!	
Me too!	OR	I follow you!	OR ….
I follow you!		Me too!	
I follow you!		I follow you!	

Question 2

Advantage:
      CPU is not involved in the transfer and is free to continue processing.
Disadvantage:
      May cause bus contention. Need a more intelligent bus controller.

Question 3

Total number of blocks read: 5

Steps:
1. read the inode for project
2. read the project data block and get the entry for design.txt
3. read the inode for design.txt ; 12th block is the block pointing to by the
      12-10 = no 2   , or
      11-10 = no 1   (if we start counting from 1)
   pointer in the single indirection block
4. get the block pointed to by the 11th data pointer (single indirection block)
5. get the block pointed to by the no 2 (or no 1) pointer of that block

<u>Question 4</u>

The program will run and greetings.txt will contain: "`World`". Recall that each time a file is opened a new entry for this file is set in the open file table and the file position is reset. Therefore both writes will start writing from the beginning of the file.

<u>Question 5</u>

```c
int main(int argc, char** argv)
{
    int fd;
     if (argc < 2 || ( fd = open(argv[1], O_RDONLY) ) < 0 )
          fd = STDIN_FILENO;

    char c;
    int lcount = 0;

    while ( read(fd, &c, 1) > 0 )
    {
            if ( c == '\n' )
                  lcount++;
    }
    close(fd);
     printf("The input has %d lines", lcount);
    exit(0);
}
```

C. Exercises from the Textbook

See text for most solutions.