

Name: KEY

Id#

ICS 103, Term 083

Computer Programming in C

Quiz# 2

Date: Tuesday, August 8, 2009

Q1. Write a code fragment to ask the user to enter a positive number, n, and display s(n) computed as follows: $s(n) = 1 + \frac{1}{3} + \frac{1}{5} + \frac{1}{7} + \dots + \frac{1}{2n+1}$. The user should be asked to reenter the input if a negative value is entered. A sample execution of the program is given below:

```
Enter a positive number: -5
Enter a positive number: -1
Enter a positive number: 3
s(3)=1.68
```

```
int i, n;
double s=0;

do{
    printf ("Enter a positive number: ");
    scanf ("%d", &n);
}while (n<0);

for (i=0; i<=n;i++)
    s += 1.0/(2*i+1);

printf ("s(%d)=%.2f\n",n,s);
```

Q2. Write a code fragment to open an input file named mytext.txt and convert all characters to upper case characters and store the result in an output file named myoutput.txt. Your program should handle file not found error. To convert a character from lower case to upper case, you need to subtract 32 from the character.

```
FILE *infile, *outfile;  
char c;  
  
infile = fopen("mytext.txt","r");  
if (infile == NULL){  
    printf("Cannot open mytext.txt for reading \n");  
    system("pause");  
    exit(1);  
}  
  
outfile = fopen("myoutput.txt","w");  
  
while ( fscanf(infile,"%c",&c) != EOF ) {  
    if (c>='a' && c<='z') c = c - 32;  
    fprintf(outfile,"%c",c);  
}  
  
fclose(infile);  
fclose(outfile);
```