**Question 7**

Debug the following code by compiling it for debugging and executing it within a

debugger. At which line of code does the program crash? Why does it crash there?

/\* This code has a compile-time error, and at

\*\* least one run-time error. \*/

#include <stdio.h>

#include <math.h>

main(int argc,char \*argv[])

{

int n,i;

int d2,count,

double d1;

while (1)

{

printf("Enter a number (0 to quit): ");

scanf("%d",&n);

if (n == 0)

break;

count=0;

for (i=0; i<n; i++)

{

d1=(double)n/(double)i;

d2=n/i;

if (fabs(d1-(double)d2) < 0.00001)

count++;

}

if (count == 2)

printf("%d is prime\n",n);

else

printf("%d is not prime\n",n);

}

}

**Answer**

The program crashes at the line d1=(double)n / (double)I; when ‘I’ is ‘zero’. The code will crash because of division by zero.