8. (b) Test 8

Test Summary

- No. of Sections: 2
- No. of Questions: 3
- Total Duration: 45 min

Section 1 - Coding Proficiency

Section Summary

- No. of Questions: 2
- Duration: 30 min

Additional Instructions:

None

Q1. **Prime or Not**

Write a 'C' Program to check whether the given number is prime or not

Input Format

Input contains the number to check for prime

Output Format

Print PRIME or NOT PRIME

Constraints

2 ≤ num ≤ 1000000000000007

Sample Input

```
53
```

Sample Output

```
PRIME
```

Time Limit: - ms Memory Limit: - kb Code Size: - kb

Q2. **GCD Of Two Numbers**

Write a 'C' program to find the GCD of two numbers

Input Format

Input contains two integers separated by space

Output Format

print the GCD of two numbers

Constraints

$1 \le n1,n2 \le 10^5$

Sample Input

```
28690 5126
```

Sample Output

```
2
```

Time Limit: - ms Memory Limit: - kb Code Size: - kb

Section 2 - Essay Writing

Section Summary

- No. of Questions: 1
- Duration: 15 min

Additional Instructions:

None

Q1. **ESSAY WRITING**

Write a response explaining your preference. Justify your opinion with suitable examples.

Directions

Is Life better In a small town or a big city?

Keywords

Answer Key & Solution

Section 1 - Coding Proficiency

Q1

Test Case

Input

```
491
```

Output

```
PRIME
```

Weightage - 5

Input

```
1847
```

Output

```
PRIME
```

Weightage - 5

Input

```
234
```

Output

```
NOT PRIME
```

Weightage - 5

Input

```
83622
```

Output

```
NOT PRIME
```

Weightage - 10

Input

```
99877
```

Output

```
PRIME
```

Weightage - 10

Input

```
6789945
```

Output

```
NOT PRIME
```

Weightage - 10

Input

```
100103
```

Output

```
PRIME
```

Weightage - 10

Input	Output
931319	PRIME

Weightage - 10

Input	Output
2147483647	PRIME

Weightage - 10

Input	Output
7963332	NOT PRIME

Weightage - 10

Input	Output
67280421310721	PRIME

Weightage - 10

Input	Output
89860328	NOT PRIME

Weightage - 5

Sample Input	Sample Output
53	PRIME

Solution

```
#include <stdio.h>
#include <string.h>
#include <math.h>
#include <stdlib.h>

int main() {

    long long num, factor, till;

    int test, ctr;
```

```
#include <stdio.h>
#include <string.h>
#include <math.h>
#include <stdlib.h>

int main() {

    long long num, factor, till;

    int test, ctr;
```

```
//  scanf( %d ,&test);
  //for(ctr=1; ctr<=test ; ctr++)
  //{
      scanf("%lld",&num);
      till = sqrt(num);
      for(factor=2 ; factor<=till ; factor++)
      {
          if(num % factor == 0)
              break;
      }
      if(factor>till)
          printf("PRIME\n");
      else
          printf("NOT PRIME\n");
//  }
  return 0;
}
```

```
//  scanf( %d ,&test);
  //for(ctr=1; ctr<=test ; ctr++)
  //{
      scanf("%lld",&num);
      till = sqrt(num);
      for(factor=2 ; factor<=till ; factor++)
      {
          if(num % factor == 0)
              break;
      }
      if(factor>till)
          printf("PRIME\n");
      else
          printf("NOT PRIME\n");
//  }
  return 0;
}
```

Q2

Test Case

Input

```
4051  7799
```

Output

```
1
```

Weightage - 10

Input

```
36  60
```

Output

```
12
```

Weightage - 5

Input

```
98  56
```

Output

```
14
```

Weightage - 5

Input

```
12345  5670
```

Output

```
15
```

Weightage - 10

Input

```
5432  12
```

Output

```
4
```

Weightage - 10

Input

```
6293  76
```

Output

```
1
```

Weightage - 10

Input

```
12  24
```

Output

```
12
```

Weightage - 10

Input

```
3  17
```

Output

```
1
```

Weightage - 10

Input

```
98345  5670
```

Output

```
5
```

Weightage - 10

Input

```
49785  25
```

Output

```
5
```

Weightage - 10

Input

```
91230  50
```

Output

```
10
```

Weightage - 10

Sample Input

```
28690  5126
```

Sample Output

```
2
```

Solution

```
#include <stdio.h>
#include <string.h>
```

```
#include <stdio.h>
#include <string.h>
```

```c
#include <math.h>
#include <stdlib.h>

int main() {
    int test, ctr, num1, num2, temp;
    //scanf("%d",&test);
    //for(ctr=1 ; ctr<=test ; ctr++)
    //{
      scanf("%d%d",&num1,&num2);
      while(num2)
      {
          temp = num1%num2;
          num1 = num2;
          num2 = temp;
      }
      printf("%d",num1);
  //  }

    return 0;
}
```

```c
#include <math.h>
#include <stdlib.h>

int main() {
    int test, ctr, num1, num2, temp;
    //scanf("%d",&test);
    //for(ctr=1 ; ctr<=test ; ctr++)
    //{
      scanf("%d%d",&num1,&num2);
      while(num2)
      {
          temp = num1%num2;
          num1 = num2;
          num2 = temp;
      }
      printf("%d",num1);
  //  }

    return 0;
}
```

Section 2 - Essay Writing

Q1

Sample Essay

No Essay

Keywords

LIFE , BETTER, SMALL , TOWN, BIG, CITY,