MATH381

test #2, 10/20/16

Total 100

Show all work legibly. **Name**:_____

1. (40) Solve the LP problem

$$\max \mathbf{c}^T\mathbf{x} = 6x_1 + x_2 + 4x_3 \text{ subject to } 3x_1 + 7x_2 + x_3 \leq 15,\ x_1 - 2x_2 + 3x_3 \leq 20,\ \mathbf{x} \geq 0.$$

The solution is: $x_1 =$ $x_2 =$ $x_3 =$ $\max \mathbf{c}^T\mathbf{x} =$

2. (20) State the dual LP.

   The dual LP is:

3. (40) Solve the dual LP.

The solution is:

The optimal value of the objective function is: