**Multiple-Choice Test**

**Chapter 04.09**

**Adequacy of Solutions**

1. The row sum norm of the matrix



is

1. 29
2. 61
3. 98
4. 200
5. The adequacy of the solution of simultaneous linear equations  depends on
6. the condition number of coefficient matrix 
7. the machine epsilon
8. the condition number for matrix and the machine epsilon
9. norm of the coefficient matrix 
10. Given a set of equations in matrix form , and  then the number of significant digits you can at least trust in the solution are
11. 1
12. 2
13. 3
14. 4
15. The solution to a set of simultaneous linear equations



is given as

 

The solution to another set of simultaneous linear equations is given by (note the coefficient matrix is the same as above)

 

is given as

 

Based on the row sum norm, the condition number of the coefficient matrix is greater than (choose the largest possible value)

1. 1
2. 138
3. 4500
4. 139320
5. The condition number of the  identity matrix based on the row sum norm is
6. 0
7. 1
8. 
9. 
10. Let . Based on the row sum norm and given that ,, the condition number of the matrix is
11. 
12. 
13. 
14. 