***Answer Key – Multiple-Choice Test - Gauss-Siedel Method***
**Autar Kaw**

1 – B - $|a_{ii}| \geq \sum_{\substack{j=1 \\ i \neq j}}^{n} |a_{ij}|, i = 1,2...,n; \quad and \quad |a_{ii}| > \sum_{\substack{j=1 \\ i \neq j}}^{n} |a_{ij}|$ for any *i* = 1, 2, …, n

2 – C – [0.90666 -1.0115 -1.0242]

3 – B - $\begin{bmatrix} 7 & 5 & 2 \\ 1 & 2 & 1 \\ 2 & 7 & -11 \end{bmatrix} \begin{bmatrix} x_1 \\ x_2 \\ x_3 \end{bmatrix} = \begin{bmatrix} 17 \\ -5 \\ 6 \end{bmatrix}$

4 – C – 3

5 – B – Sub Seidel(n, a, x, rhs, nmax)

```
For k = 1 To nmax
For I = 1 To n
        Sum = 0
For j = 1 To n
If (i <> j) Then
Sum = Sum + a(i,j) * x(j)
Endif
Next j
x(i) = (rhs(i) – Sum) / a(i,i)
```

```
Next i
Next k
End Sub
```

6 – B – 30.675