

## **NAG Toolbox for MATLAB**

### **Correlation Matrix Exercise**

#### **Correlation Matrix**

The file `rawdata.dat` contains observations of the prices of 10 stocks. You can download it from the same directory as this question sheet.

Use the NAG routine `G02BX` to calculate the correlation matrix associated with this data. You may find the following code fragment useful to import the data:

```
fid = fopen('rawdata.dat');  
at = zeros(10,91);  
[at,count] = fscanf(fid, '%f', [10 91]);  
a = at';
```

#### **Nearest Correlation Matrix**

Now change the pair-wise correlation between stocks 1 and 10 to 0.2. Is the matrix now a valid correlation matrix?

Use `G02AA` to compute the nearest correlation matrix to this matrix.