```
 1. void dgemm (int n, double* A, double* B, double* C)
 2. {
 3.     for (int i = 0; i < n; ++i)
 4.       for (int j = 0; j < n; ++j)
 5.       {
 6.         double cij = C[i+j*n]; /* cij = C[i][j] */
 7.         for( int k = 0; k < n; k++ )
 8.           cij += A[i+k*n] * B[k+j*n]; /* cij += A[i][k]*B[k][j] */
 9.         C[i+j*n] = cij; /* C[i][j] = cij */
10.       }
11. }
```

FIGURE 2.43 C version of a double precision matrix multiply, widely known as DGEMM for Double-precision GEneral Matrix Multiply (GEMM).