**Mathematical Methods Tutorial Sheet 5 Matrices**

**Q1.** Given the following matrices

A = B = C = D =

(a) Given X = A.B, what is the value of (i) x12 and (iii) x21 ? [ans: (i) 38 (ii) -15 ]

(b) Evaluate (i) AB (ii) BA (iii) AC

**[ans: (i) (ii) not possible (iii) ]**

**Q2**. Determine the determinant of each of the following matrices:

A = C =

**[ans: |A| = -6, |C| = -222]**

**Q3.** Write down the transpose of each of the following matrices:

A = B = C =

**Q4.** Given A = and B = determine AB

and show that |AB| =|A|.|B|