DEPARTMENT OF MATHEMATICS

MATH3301 GRAPH THEORY

ASSIGNMENT TWO

DUE DATE for ASSIGNMENT TWO: 3pm TUESDAY 22nd August 2006

Q1 Problem Sheet 2, Question 1.

Q2 Problem Sheet 2, Question 4.

Q3 Problem Sheet 3, Question 3.

Q4 Problem Sheet 3, Question 10.

Q5 (MP316, 1999 exam) Prove the Petersen graph is nonhamiltonian. (Hint, assume a hamiltonian cycle exists. Now show that this implies the Petersen graph has a 1-factorization, contradicting the proof on slide 6 of the factorization notes.)