

First Name: \_\_\_\_\_ Last Name: \_\_\_\_\_

- 1) What is the maximum speedup of a parallel processing environment with 50 processors given that 5% of code is sequential?
- 2) Devise a GMSV program which would result in sum of array X[] with 5,000 elements using 50 processor.
- 3) Devise a DMMP program which would result in sum of array X[] with 5,000 elements using 50 processor.
- 4) Design a DMMP such that the network is organized as a 4-cube. Determine the number of processors in such an architecture.
- 5) Design a DMMP such that the network is organized as a two dimensional torus with the same number of processors as problem 4.
- 6) The following diagram depicts a vector processor for matrix – vector multiplier. Devise a vector processor for a matrix – matrix multiplication.

