## Economics 4080.03M

S. Bucovetsky

Midterm Exam : Wed. February 19 1997: 11:30 am - 12:30 p.m.

Do all 3 questions. Each question counts equally. Time $=1$ hour.

1. If the utility person $h$ received from consuming a quantity $x_{h}$ of a pure private good, and a quantity $g_{h}$ of a pure public good was

$$
U^{h}\left(x_{h}, g_{h}\right)=x_{h}+a_{h} \sqrt{g_{h}}
$$

where $a_{h}$ is some ( positive ) number, and if the marginal rate of transformation between the public good and the private good is a constant 1 , what are the efficient allocations?
2. Would the problem of "cycling" [ i.e. the Condorcet, or voting, paradox ], which can arise under pairwise majority rule, be eliminated if a new proposal required a two-thirds majority to be adopted, instead of a "simple" majority of fifty percent? Explain briefly.
3. Is government provision more efficient than unregulated private provision for a good produced under increasing returns to scale? Explain briefly.

The End

