All questions a) to d) should be addressed, and they count equally in the evaluation. A consistent approach to all four questions will be especially rewarded.

While classical economists emphasized what can be called 'the iron law of wages', real wages of workers in many countries went up at a high rate soon after the industrial revolution.

- a.Give a critical account of "the iron law of wages". Discuss the possible role of wages and economic inequality for
- b.the industrial revolution and for
- c.the later emergence of welfare spending and what is called a social democracy. Finally, give your
- d.brief assessment of what can have determined the long-term development of real wages in the Western world.

## Instruction:

**On question a)** I expect that the candidates understand the concept of a Malthusian "trap" where i) the number of births is positively related to real income per capita; ii) the number of deaths is negatively related to real incomes; and where "a steady state equilibrium" is obtained for iii) the level of real income where deaths equal births which again is related to total income and the size of the population via iv) the negative link from total population to per capita income. The "iron law" exists if a positive shift in total income for given size of the population leads to population growth until we again obtain the initial level of real income per capita.

Remarks: all concepts in "x" should be critically discussed. It is also nice if the candidate argues how the three major links all are partial (all other things being equal) – and if they say anything sensible what happens if the other things do change (as they do)..

**On question b)** I expect that the candidates understand that there are several factors contributing to the industrial revolution. Now: they should emphasize the role of real wages for the profitability of the new inventions in the textile industry (as argued by Bob Allen). In countries with high real wages (England) the costly new inventions were profitable since they replaced expensive labor. In countries with low real wages (China) the new costly inventions were not profitable since they only replaced inexpensive labor.

Remarks: the basic mechanism can be critically discussed both in terms of whether wages were higher in England than elsewhere and in terms of to what extent merchants and masters did calculate in this way. It would also be fine if the candidates relate some of the issues to other explanations **On question c)** I expect that the candidates should be able to argue how a high real wage can be associated with most citizens being interested in voting for more "normal goods". The political demand for social insurance, health provision, and education go up with income both the average for society and the individual incomes – as long as everything else (such as health risks and the risks of loss of income) remain constant. If the candidates also can argue that a high average real wage can go together with compression of pay, they should be able to distinguish between countries after the level of wage inequality and the expansion of welfare spending.

Remarks: It would be nice if the candidates could comment on the puzzle that higher wages lead to more welfare spending in historical data, while at any time the rich demand less welfare spending than the poor. The puzzle is resolved by the observation that the rich have lower risks for los of income etc.

**On question d)** I would be happy if the candidate comes with any sensible discussion, for instance the development of population growth, the emergence of the welfare state to empower workers, and the development of labor market institutions (unions etc) and changes of bargaining systems.

Remark: to obtain an A, I think the candidate should have something of interest to say on this point as well. But we cannot expect very much here.