Exam 4620 spring 2022, exam #2

1. Short true, false or uncertain statements, explain briefly your answer (40% in total, same weight on each)

    (a) The Corlett-Hague rule says that you should impose a higher tax on the commodity that is more complementary with leisure.

    (b) The Atkinson-Stiglitz theorem can be used to argue that a commodity tax should supplement an optimally set tax on labor income, because it weakens the self-selection constraint (information constraint).

    (c) A tax on annual wealth has the same distributional effects and economic efficiency effects as a tax on capital income.

    (d) The top of the Laffer-curve shows the tax level for which one derives the maximum welfare in a society.

    (e) When taxation of a commodity is changed, the consumers (and not the suppliers) bear the burden of the tax change when the consumer demand is inelastic.

2. Taxation of intergenerational transfer (40%)

    The accidental, the altruistic, the egoistic (joy-of-giving) and the exchange models are all models which explain intergenerational transfers.

    (a) We have that Y^P is the parent's earnings and the child earnings is Y^C. The parent recieves inheritance at the start of period 1, I^P. One period later the parent provides a transfer (inheritance) to the child, I^C. The altruistic model implies that the parents maximize $\{U\left(Y^P + I^P - I^C\right) + \lambda \cdot V\left(Y^C + I^C\right)\}$ with respect to the transfer to the child I^C , where $U\left(.\right)$ measures the parent's utility from its own lifetime consumption, $V\left(.\right)$ measures parental utility from the child's consumption, and λ is a parameter representing the strength of the parent's altruistic sentiments. Explain how, according to this altruistic model, a transfer to the child depends on the income of the parent and income of the child, and why a tax on the transfer (an inheritance tax) is distortive.

    (b) If there is more than one child in the family, how will the parent divide the transfer between the two children: do they get identical shares?

    (c) Discuss to what extent a tax on intergenerational transfers (an inheritance tax) is distortive under the other models of intergenerational transfers (as referred to above)?

3. Insurance (20%)

    Consider a population of workers. Each of them earns w and are identical in all aspects except that they have different probabilities $p_i \in [0, 1]$ of

loosing their work capacity. Workers are risk averse and want to insure against this potential loss.

(a) What is meant with adverse selection in insurance?

(b) Explain why the marginal cost curve for the provision of insurance is downward sloping.

(c) Explain why adverse selection can be an argument for having public provision of social insurance.