ECON4921 – Institutions and Economic Systems, 2019 – Guidelines

1a)

TRUE. First they argue that economic institutions is the fundamental reason why countries stay poor. Then they argue that commitment problems is the reason why countries choose bad economic institutions. They discuss two commitment problems:

1. The hold-up problem: The elite cannot credibly commit to not expropriate the returns from economic investments. This discourages investment.
2. The political loser problem: Creating good economic institutions would lead to the empowerment of non-elites. These non-elites could then use this power against the elite. Since the non-elites cannot credibly commit to not do this, they prefer to have bad economic institutions.

-2 points if only mention one of the commitment problems.

1b)

FALSE/UNCERTAIN. It is not necessarily a causal effect. It is not randomly determined which constituencies experienced riots. It could be that these constituencies voted more for the Whigs in 1831 due to other reasons than the riots. This concern is partially addressed by controlling for past support for the Whigs (in 1826) and past support for the Reform Bill. For instance, we can rule out that the correlation is driven by riots tending to happen in constituencies who traditionally are Whig strongholds (for instance due to reverse causation: Whig supporters helping to foment the riots). However, it could still be the case that there is some omitted variable that is correlated both in timing and location with the riots that is causing the increase in Whig support. For instance if riots tend to happen when there is a bad harvest and bad harvests also tend to increase the support for the Whigs.

Full credit if the student shows he/she has understood that omitted variables correlated with the riots and Whig support would be a problem.

5 points for just mentioning that controlling for past support of the Whigs deals with some concerns.

1c)

TRUE. The Malthusian model assumes that population increases if there is an increase in productivity. An increase in population will again lead to less food per person until the population has reached a stage where the number of births and death is equal again. Thus productivity shocks should not cause a lasting increase in farming surplus. The estimated coefficient is not statistically different from 0 and is thus consistent with this theory.

-2 points for failing to pointing out that the coefficient is not statistically different from zero.

1d)

FALSE. Weingast (1997) argues that a constitution can act as a coordination device for the citizens. It explains which actions should be considered as fundamental transgressions by the "sovereign" and should trigger them to jointly challenge the sovereign.

2a)

It is (Cheat, Cheat). If the column player plays Cheat it is a best response for the row player to also play Cheat giving d which is greater than c, and vice versa. (Honest, Honest) is not a Nash equilibrium since for instance the row player gains by deviating to Cheat getting b which is greater than a. Similarly (Honest, Cheat) and (Cheat, Honest) are also not equilibria.

-2 point for just showing that (Cheat, Cheat) is a Nash equilibrium and not showing that there are no other.

2b)

If you follow the equilibrium strategy and play Honest you will get payoff

$a + \delta a + \delta^2 a + \delta^3 a + \cdots$.. Reason: The trader you are matched with will play Honest since you both have label "honest", giving you a. In next period and onwards all traders will be labelled "honest", including you. Thus you will always meet "honest" players in the future and get a forever.

If you deviate and play Cheat you will receive b in the current period. In the next period you will be labelled "a cheater". Then you will play Honest (we only consider a one-shot deviation) while the trader you meet will play Cheat which gives you . Then you will become labelled "honest" again and get a forever after. Thus your payoff is $b + \delta c + \delta^2 a + \delta^3 a$+…

Thus this deviation is profitable whenever $b + \delta c > (1 + \delta)a$.

2c)

If b is low it means that the payoff from Cheating against a trader who is Honest is low. Thus, the short-term gain from Cheating is smaller. Since the punishment for Cheating does not depend on b this makes it more likely that Honest trading can be sustained.

3a)

A 1% increase in the price of Coltan is associated with a 0.07 percentage point increase in the probability that there is stationary bandit at the mine.

It is OK if the student writes "is causing" rather than "is associated with".

-2 points for:

- Not realizing the price of Coltan is in log
- Not realizing that the variation is just coming from the changes in prices over time not from comparing across municipalities with and without Coltan
- Not realizing the effect should be in percentage points

(0 points if not realizing any of the above)

3b)

No. The regression does not compare municipalities with coltan to municipalities without coltan. The regression includes municipality fixed effects, so the coefficients are estimated from variation within municipalities not across municipalities.

3c)

This critique could be valid. The DRC is one of the world's largest producers of coltan, so it is not unlikely that events in the DRC could affect the world coltan price. However, most of the variation in the coltan price comes from a large spike in the price in 2000 caused by the announcement of Playstation II. Thus reverse causation is not likely to explain the full magnitude of the coefficient.

-2 points for not realizing that not all of the variation in coltan prices comes from the exogeneous Playstation II shock

3d)

Assume the following prisoners' dilemma

	Cooperate	Defect
Cooperate	a, a	c, b
Defect	b, c	d, d

with b>a>d>c. If this game is repeated forever with discount factor δ we know that cooperation is more likely to be sustained in a sub-game perfect equilibrium if *a* is large. However, if *b* is large cooperation is less likely to be sustained in a sub-game perfect equilibrium. We can apply this model to conflicts by relabeling "Defect" as "attack" and "Cooperate" as "not attack". Different natural resources can then have different effects on conflict depending on how they affect the parameters *a, b* (and *d*). The different effects could then be explained by gold causing an increase to *a*, the benefit from peace (e.g. by an opportunity cost mechanism: It might be better to spend your time searching for your own gold than to attack others), while coltan causing an increase in *b*, the temptation to attack.