Study Questions for Midterm #3 and Final

I have cribbed these questions from Ray. I have posted solutions (password protected) as made available by Professor Ray.

1. Show that in an economy with extensive possibilities for perfect crop insurance, fixed–rent tenancy must be dominant irrespective of whether tenants are risk–averse or risk–neutral.

2. Show that in an economy where risk is a major factor, where tenants are risk–averse, and where the inputs of the tenant can be costlessly monitored by the landlord (and verified in court), sharecropping will be preferred to fixed–rent tenancy.

3. Why Might tenant laws that confer permanent use rights on a tenant who has farmed a plot of land for some years have counterproductive effects on the security of a tenant?

4. Explain why the presence of limited liability can give rise to situations in which eviction threats are used by the landlord against the tenant. Discuss the various factors that will affect tenant productivity if eviction is banned by law.

5. Consider various forms of land rights: (i) communal ownership, (ii) individual use rights without ownership, and (iii) full ownership rights. Discuss how these rights affect the productivity of cultivation.

6. Review the standard supply–demand model for the study of labor market equilibrium. Discuss some features of labor markets that require substantial extensions to, or changes in, the standard supply–demand framework.

7. Suppose that sport market wages fluctuate between the two values $50 and $100, each with probability 1/2. Suppose that a risk–averse worker dislikes fluctuations in income and wants to smooth out these wages. He therefore approaches a larger employer, who is risk–neutral and goes by expected values. They agree on a contract \((w_1, w_2)\), where \(w_1\) is paid by the employer to the employee in the case the spot market wage is $50, and where \(w_2\) is paid in case the spot market wage is $100.

(a) Describe precisely the set of contracts \([(w_1, w_2), \text{ pairs}]\), that would be acceptable to the employer, in the sense that we would prefer to pay using such a contract rather than pay spot wages.

(b) Using part (a) argue that if the employer and the employee settle on a contract, then it must be the case that \((w_1 + w_2)/2 < 75\), and moreover, that \(w_1 > 50\) and \(w_2 < 100\).

(c) Now consider an ongoing form of this contract between employer and laborer. Notice that in each period, if the going spot wage happens to be $100, the laborer has an incentive to break the contract and run away. Why is this? Hat is the laborer’s short–run gain from doing so?

(d) Now we think about long–run loss to the laborer for breaking the contract. He will surely lose future contracts with the current employer. This is a source of real loss if, in the original contract, the employer desisted from driving the laborer’s compensation down to the equivalent of what he could have obtained elsewhere. Observe that this becomes more and more important if the laborer can get a permanent contract elsewhere without the current employer’s knowledge. Argue that if this problems becomes very serious, then the employer will not agree to offer the permanent contract in the first place.
8. One motivation to hire permanent labor is to carry out tasks that cannot be easily monitored by the employer. In this case, the only punishment power that the employer might have is firing the permanent employee from the job. Consider the following information (i) the permanent employee must be hired at a fixed wage, call it $w$, that is paid up front. (ii) The next best employment that a permanent employee can get is as a casual employee, say at $100 per season (neglect uncertainty and seasonality). (iii) The employee can not be monitored, so there is always a danger that he will shirk. This cannot be found out immediately, but suppose that there is evidence of this available by the beginning of the next season.

Show that the employer must always set $w$ strictly higher than $100, even if there is a large potential supply of permanent workers. Discuss how the difference between $w$ and $100 is affected by (a) alternative uses of the permanent laborer’s time (shirking), (b) the likelihood of his getting another permanent laborer’s job if he is fired, and (c) a change in the casual wage, currently set at $100.

A few questions on the Hicks–Marshall laws of derived demand.

9. One organization representing labor argued that interest rates in 2005 were too high and that the government must seek to lower them so that productive, job–creating investments could take place. Do lower interest rates unambiguously increase the demand for labor?

10. Clerical workers represent a substantial share of the U.S. workforce — over 15 percent in recent years. Concern has been expressed that computerization and office automation will lead to a substantial decline in white–collar employment and increased unemployment of clerical workers. Is this concern well–founded?

11. Briefly explain how the following programs would affect the elasticity of demand for labor in the steel industry:

   (a) an increased tariff on steel imports;
   (b) a law making it illegal to lay off workers for economic reasons;
   (c) a “boom” in the machinery industry (which uses steel as an input)—causing, production in that industry to rise;
   (d) a decision by the owners of steel mills to operate each mill longer than has been the practice in the past;
   (e) an increase in the wages paid by employers in the steel industry;
   (f) a tax on each ton of steel produced.

12. Suppose that the demand for custodians in a small city within a developing country is $L = 300 − 20W$, where $L$ is the number of custodians and $W$ is the wage in rupees per hour. The equilibrium wage is 4 rupees per hour, but the government puts in a place a minimum wage of 5 rupee per hour.

   (a) Assume that none of the firms has monopsony power, how does the minimum wage affect employment of custodians in this city? Draw a graph to show the effects on employment of custodians.

   (b) Suppose that in the city above, there is an uncovered (informal) sector where $L_s = −100 + 80W$ and $L_d = 300 − 20W$, before the minimum wage is put in place. Support that all workers who lose their jobs due to the introduction of the minimum wage seek
work in the uncovered sector. What happens to wages and employment in the informal sector? Draw a graph to show what happens, and analyze the effects on both wages and employment in the uncovered sector.

13. TRUE, FALSE, or UNCERTAIN. Please indicate whether the following statements are true, false, or uncertain (need additional information to determine statement’s veracity) and explain your reasoning. No explanation no credit.

(a) One way to overcome averse selection in credit markets is microfinance — making loans to a group of borrowers in which if one borrower within the group defaults on a loan, all within the group are eliminated from obtaining future credit from the lender.

(b) Limited liability occurs only in agricultural markets as individuals without assets can not be forced to repay a debt.

(c) If two factors of production are gross complements, the scale and substitution effect reinforce one another.

(d) Interconnected transactions (e.g., a trader makes loans to farmers and buys the farmers’ output) arise because they can increase the profit of the trader and leave the farmer no worse off.

(e) Risk neutral tenants should always be offered fixed rent contracts.

(f) Because of the likelihood of default, we will never see loans made to rural entrepreneurs who end up working in the city.

(g) Jed has preferences described by $u = x^\alpha$, with $\alpha > 0$, and $x$ is consumption. **Claim:** Jed is risk averse.

(h) Insurance deductibles exist to detect the injury prone in the population.

(i) One way to overcome moral hazard in credit markets is microfinance — making loans to a group of borrowers in which if one borrower within the group defaults on a loan all within the group are eliminated from obtaining future credit from the lender.

(j) A borrower with a reasonable level of collateral will receive a lower interest rate than a borrower without collateral.

(k) The best situation for the borrower is when the lender values the borrower’s collateral as much or more than does the borrower.

(l) Borrowers with longer horizons are less likely to default (controlling for amount of the loan, annual income, and the like).

(m) Interlinked relationships are useful to prevent strategic default.

(n) Strategic default is the most pernicious and most common form of default.

(o) Suppose that one member of a group loan suffers an unanticipated death of her spouse. She consequently defaults on her (small) loan. **Claim:** Other group members should default on their loans as well.

(p) Limited Liability gives an incentive to tenant farmers to over invest in risky methods of production.
(q) Small landowners may not pool their farmlands to obtain economies of scale (say through joint production), because pooling creates and an incentive to free-ride.

(r) According to Ray, one reason we do not see land reform is because commonly large farms are more productive than small farms.

(s) Even in a world with homogenous workers, permanent jobs will command a premium over casual jobs, because the risk of losing the permanent jobs stops shirking.

(t) Some countries are rich because they experienced economic growth over a century or more, while poor countries are poor because they have not experienced economic growth for a comparable period.