Econ 1A Fall, 2012

Practice Questions for the Final

Note – these questions show the format of the questions on the final. The final will be comprehensive. All parts of the class have an equal chance of appearing. But the questions below more heavily emphasize the later parts of the class, to make sure that you get to practice those before the final.

1. PERFECT COMPETITION –

The first aim of all economic policy is to achieve efficiency. A necessary condition for efficiency is that p=mc.

(a) cond	Prove that a profit maximizing perfectly competitive firm always meets this necessary ition for efficiency.

⁽b) Assuming that for each firm in a competitive industry SMC = b+2cq when STC = $a+bq+cq^2$. Suppose the cost of each firm is given by STC = $72+4q+2q^2$. Calculate the profit maximizing output for the firms when p=16.

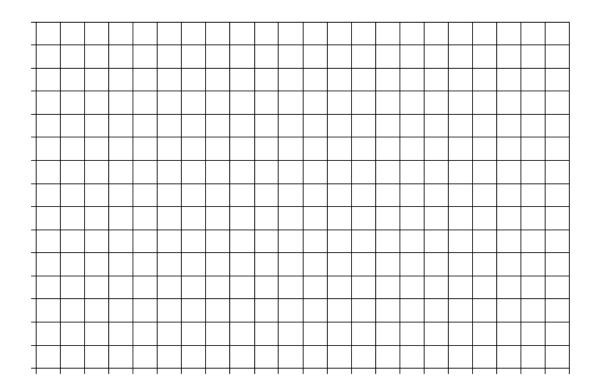
(c)	Calculate the profits or losses of the firms above when $p = 16$?
(e)	Calculate the market price at which profits would be zero?
(f)	What Law of Production do the firms costs described above satisfy?

Suppose also that market dema Suppose individual firms have	industry is a perfectly competitive constant cost industry. In a for wedding dresses is described by $Q = 10,000 - 10P$. Cost functions of LTC = $20,000+100q+2q^2$ (LTC = 0 if $q = 0$) (so the market price, how much does each firm produce, and how astry in the long run?
Price =	
Firm Output =	
Number of firms =	

3. describ	EXTERNALITIES Suppose demand in the perfectly competitive fish market can be d by the equation $P = 10 - (Q_d/2)$, while supply is described by $P = 2 + (Q_s/2)$.	эe
(a)	Calculate the following	
	Equilibrium Price	
	Equilibrium Quantity	
	Consumer Surplus	
	Total Surplus	
	Marginal Cost of Production	
(you m	st show the calculations below to get credit)	

(b) Suppose the Calculate	nere is an external cost of \$2 per fish, associated with	th environmental demage.
	Socially Efficient Price	
	Socially Efficient Quantity	
	Deadweight Loss at free market price	
(for credit show	w working below).	
	tax must be levied to get the socially efficient outco ated with this tax?	me? What is the deadweight
		Tax Deadweight Loss

4. Suppose there are 10,000 acres of land in Davis, and the city size is fixed (the citizens have passed a "no-growth" ordinance). The demand for land in the city is described by Rent = 40,000 - 2Q, where Q is the number of acres rented and Rent is the annual rental per acre in \$.



(a) Show above the demand and supply of city land at each rental (with the values at which curves intersect axes). Calculate the market rental rate, consumer and producer surplus (7)	

(b) The city proposes and annual parcel tax of \$10,000 per acre on land owners to raise revenue. Calculate the new level of land rents. (2)
(c) Calculate the Deadweight Loss, in \$ per year, from the parcel tax. Explain the economic intuition behind your answer (2)
(d) Since some parcels have \$1m homes built on them, and others have homes worth only \$200,000 it is argued that the parcel tax lets off the owners of the expensive homes too lightly. As an alternative the city proposes to raise the same amount of revenue by a tax from property owners that is 10% of the rental value of the land plus the structures built on it. Would the deadweight loss in the long run of such a tax be greater or less than the parcel tax. Explain your answer (4)
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	Suppose in downtown San Francisco the number of on street parking places is fixed at 0. Suppose also that they are metered, and the city has set the charge at \$1 per hour, with a num stay of two hours. The market clearing price of such spaces is \$6 per hour.
(a)	What is the loss in \$ per hour from this policy? (2)
(b)	State three forms that this loss takes (6)
	The city finds that by reducing the maximum stay to 20 minutes it can reduce demand for aces sufficiently so that there are always now some free spaces. Has it eliminated the identified in (a) by this policy? Explain. (3)
(d) discou	Shopkeepers would oppose raising prices to market clearing levels, fearing that it would arage people coming to shop in San Francisco. Are their fears justified? Explain. (3)

	Efficient Price
	Shut-Down?
Explain	

Suppose that a treatment facility for drug addicts just released from prison sentences needs to be established in some neighborhood. It can either be located in West Davis or Del Paso Heights, a poor neighborhood in Sacramento. It would reduce property values by \$2 m in Central Davis, but only by \$500,000 in Del Paso Heights. Explain to someone not familiar with economics why the facility should be located in the poor neighborhood. Responses will be graded on coherence, organization, and use of examples.

7. We assumed in this course that the aim of economic policy should be to maximize efficiency.

