

Concordia University Department of Economics
ECON 201/2 A MIDTERM EXAMINATION

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Instructions:

Answer all questions on this question booklet.

Be sure to explain and show how you derive your answers.

Time permitted is 75 minutes.

Cell phones and all notes and books should be left in your school bag or coat at the extremity of the classroom.

Non-programmable calculators are permitted.

MC. _____

Q1.

Q2.

Q3

Total

Part I. Multiple Choice Questions (30%). Circle the correct answer

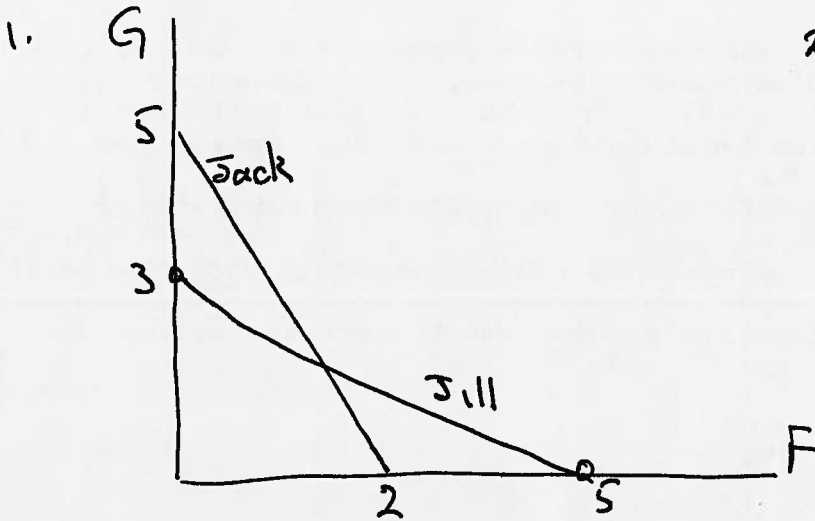
1. Currently Joe and Hal are consuming the same amount of strawberries, but Joe's (straight-line) demand curve is much more elastic than Hal's at the current price. Which statement is true? [hint: draw two curves through the same price-quantity combination]
 - a. Hal's consumer surplus exceeds Joe's,
 - b. Hal's consumer surplus equals Joe's,
 - c. No statement can be made regarding consumer surpluses,
 - d. Joe's consumer surplus exceeds Hal's.
2. Using a supply and demand diagram of your own, if a per unit tax is imposed, the more elastic the supply curve, the:
 - a. Smaller the deadweight loss,
 - b. Larger the deadweight loss,
 - c. Larger the deadweight loss to producers,
 - d. Smaller the deadweight loss to consumers.
3. When economists describe a good as being 'under-priced', they mean that:
 - a. Output should be increased because the marginal social benefit in consumption exceeds the marginal social cost of production.
 - b. Too much of the good is being produced since there is a negative externality associated with the good.
 - c. Resources are properly allocated since society wants more of the good at a lower price.
 - d. There is an under-allocation of resources in the production of the good.
4. Suppose the per-unit tax on cars is raised. If the demand for cars is inelastic then this will cause tax revenue to
 - a. Rise,
 - b. Fall,
 - c. Stay constant,
 - d. Rise if the supply elasticity is less than one and fall if the supply elasticity is greater than one.
5. Consider the goods electronic readers and electronic books. In response to a price decline in e-books, the market for e-readers should show
 - a. An inward shift in demand,
 - b. An outward shift in demand,
 - c. An inward shift in supply,
 - d. An outward shift in supply.
6. If the nominal price of tickets to see the band U2 has increased from \$100 to \$150 during a five year interval, and the consumer price index has risen from a value of 160 to 200, then the real ticket price increase is:
 - a. 50%,
 - b. 40%,
 - c. 30%,
 - d. 20%.
7. An optimal amount of pollution occurs where:
 - a. Polluting firms produce a zero amount of pollution,
 - b. The cost of damage at the margin equals the cost of abatement,
 - c. Government taxes provide an incentive to the producer to emit zero pollution,
 - d. Government subsidies to the producer are such as to reduce pollution and leave his profit unaffected.
8. Which one of the following statements is false?
 - a. If the economist wants to examine the distribution of income in 1987, time-series data should be used.

- b. If the economist wants to examine the relationship between advertising expenditures and sales during 1987, cross-section data is used.
 - c. If the economist wants to examine the effect of intellectual ability upon earnings, cross-section data could be used.
 - d. If the economist wants to forecast gross national product based upon observations from previous years, time-series data should be used.
9. The demand for ice cream is given by $P = 24 - 1Q$ and the supply curve is given by $P = 4$. The point elasticity of demand (ignoring the negative sign) is given by:
- a. 5,
 - b. 1/5,
 - c. 2,
 - d. 1/2.
10. Taxicab fares in Three Rivers are subject to price regulations set by the city government. Suppose that the local taxi companies petition the city council to raise the fares to generate higher revenues. A local citizen action group opposed to the fare increase claims that any increase in fares will actually lead to lower taxi revenues. Based on these views:
- a. The taxi companies believe the demand for taxi rides is price elastic, while the citizen action group believes the demand is price inelastic,
 - b. The taxi companies believe the demand for taxi rides is price inelastic, while the citizen action group believes the demand is price elastic,
 - c. The taxi companies believe the demand is unit elastic, while the citizen action group believes the demand is perfectly inelastic,
 - d. The taxi companies believe the demand is perfectly elastic, while the citizen action group believes the demand is unit elastic.

Part II (70%): Answer all parts

Question #1 (20%). Jack and Jill are the only two individuals on Isolated Island. They survive by hunting game (G) and harvesting fruit (F). Jack in one day can hunt and catch 5 animals or harvest two baskets of fruit. Jill, in one day, can hunt and catch 3 animals or harvest 5 baskets of fruit.

1. In a diagram with game on the vertical axis and fruit on the horizontal axis, draw the production possibility curves for each individual, labeling the axes carefully. (2)
2. If each individual devotes one-half of their time to hunting and one-half to harvesting fruit, how many units of each can be consumed in total in the economy? (2)
3. If they now specialize in the activity where they have an advantage, how much of each good will become available for consumption in the economy? (2)
4. Draw the production possibility curve for the whole economy, labeling the coordinates numerically. (4)

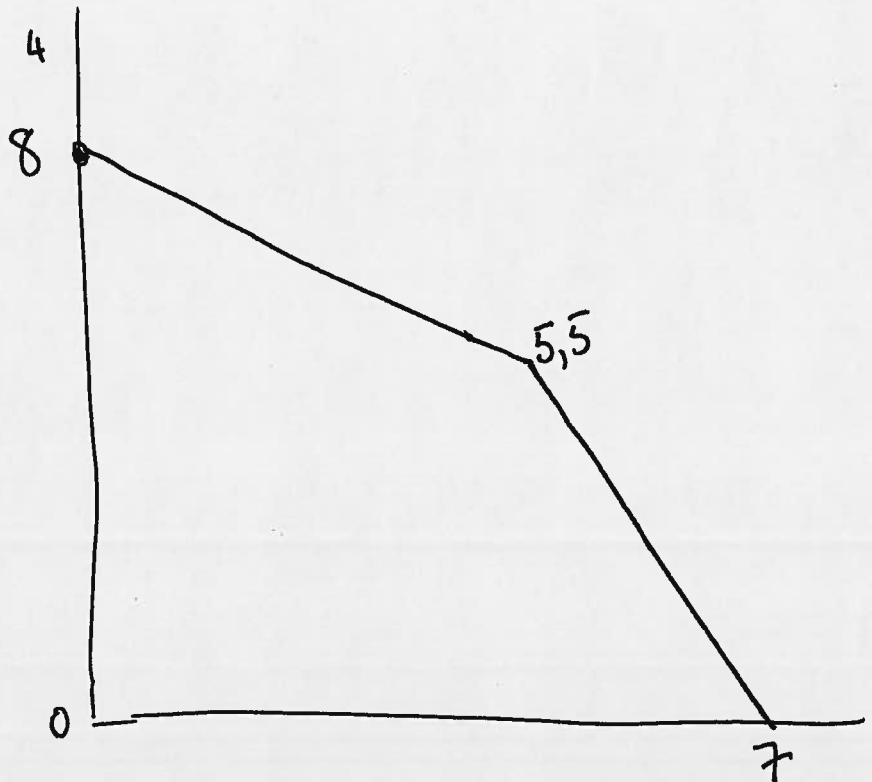


2.

Jack	$2\frac{1}{2}G + 1F$
Jill	$1\frac{1}{2}G + 2\frac{1}{2}F$
Total	$4G + 3\frac{1}{2}F$

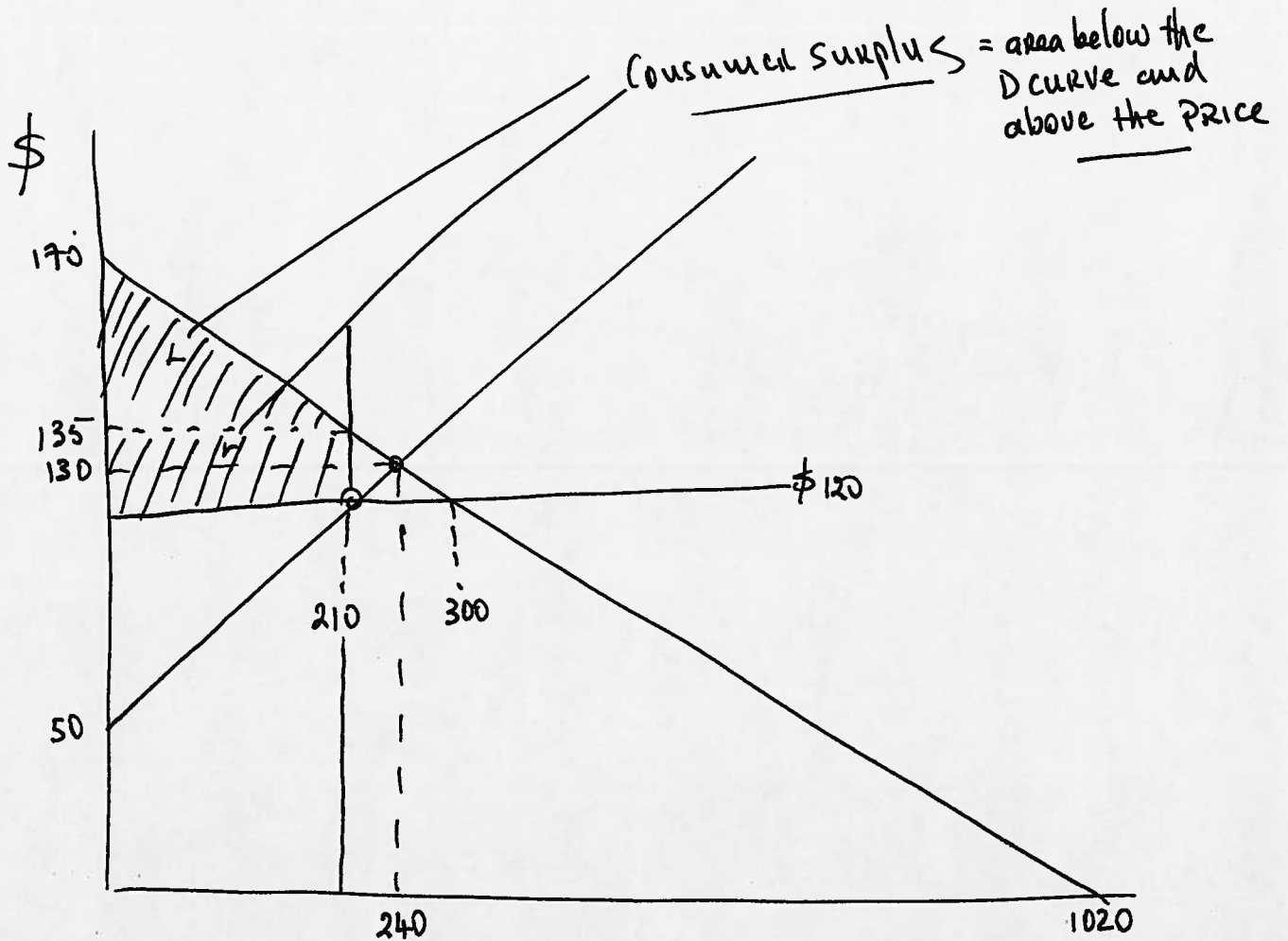
3.

$5G + 5F$	
Jack	(Jill)



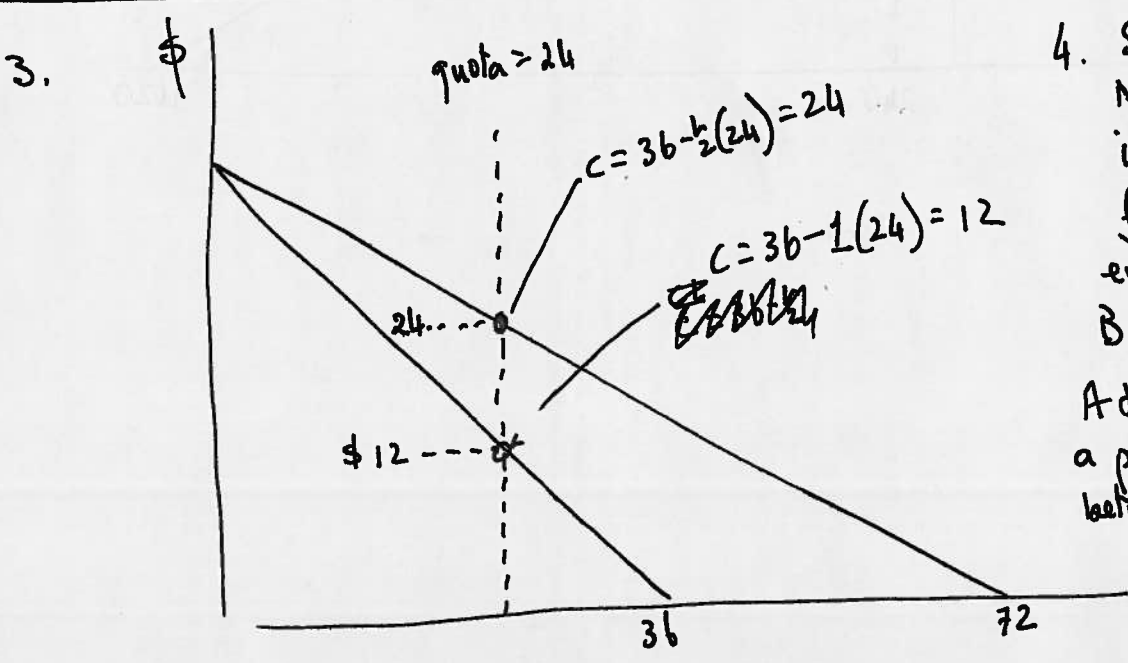
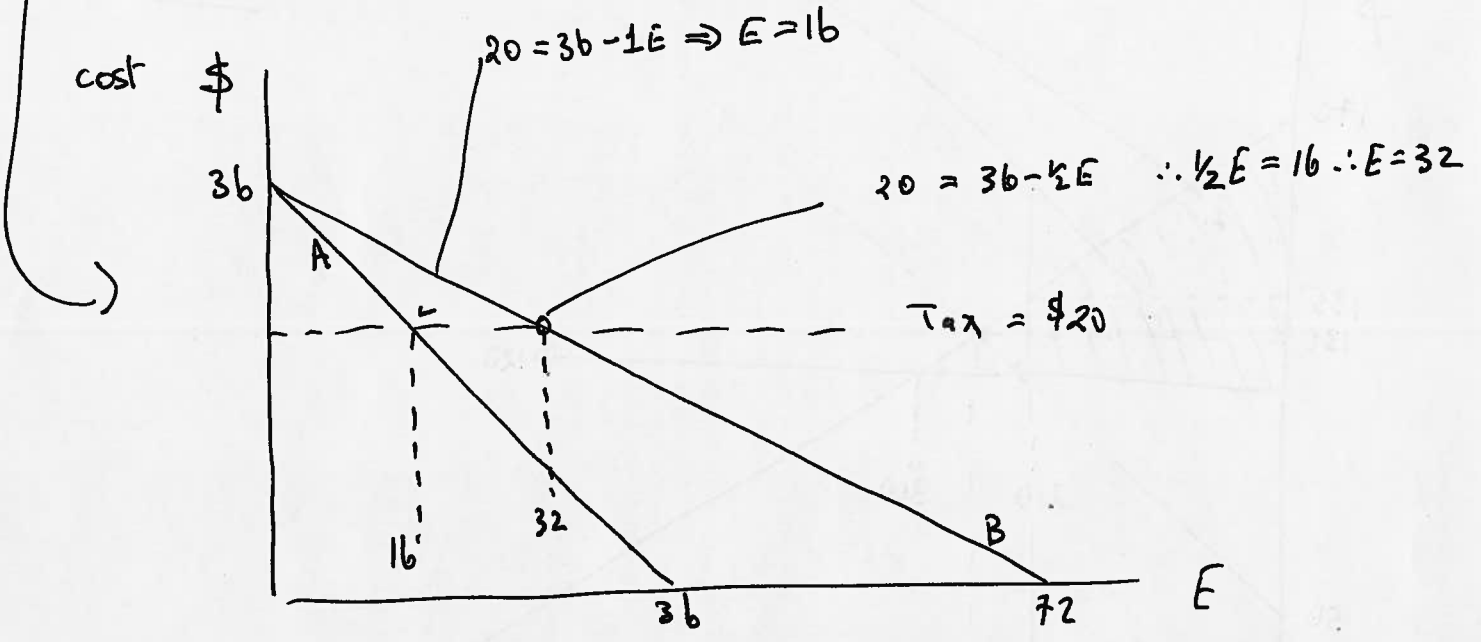
Question #2 (20%). The demand and supply for good Q are given by the functions by $P = 170 - (1/6)Q$, and supply is given by $P = 50 + (1/3)Q$.

1. Graph the functions and find the equilibrium price and quantity by equating demand and supply. (3)
2. Suppose a price ceiling is established by the government at a value of \$120. Calculate the amount that would be demanded and supplied and then calculate the excess demand or supply. (3)
3. Calculate the consumer surplus in part 2 and illustrate it in the diagram. (4)



Question #3 (30%). Two firms characterize an industry subject to pollution/emissions controls. Firm A can reduce/abate emissions, E , at a marginal cost C given by $C = 36 - 1E$; Firm B's cost of abatement is $C = 36 - 0.5E$. The government wishes to reduce these emissions to a level that is less than would prevail if the government remained inactive and permitted the firms to emit as much as the firms wish. (3)

1. In a diagram with cost on the vertical axis and the quantity of emissions E on the horizontal axis, illustrate the abatement cost functions for these firms, and label the intercepts. (3)
2. If the government now imposes a tax on each unit of emissions equal to \$20, illustrate in the diagram the quantity of pollutants that each firm will emit, and calculate those two values. (3)
3. If, instead of the tax, the government permits each firm to emit 24 units of pollutants, what is the dollar cost to each firm at the margin of reducing their emissions by one unit? Illustrate on a separate diagram. (4)
4. Could these two firms negotiate with each other over their permitted quotas in a beneficial manner? Explain. (4)



4. Since the $MCA_A < MCA_B$ it pays for A to further reduce emissions and B to emit more. A & B can negotiate a price per quota unit between \$12 - \$24