

ECON 1101-58 Fall 2004  
Instructor: Sasha Vostroknutov

## **MIDTERM**

**2 hours**

**To answer the questions use the space provided  
Make sure that all graphs are labeled properly**

Notes:

You may leave your answers as fractions or irrational numbers.

If you need more room, use the back of the page. If you do use the back, please indicate that you did.

Read each question carefully and be sure to answer all parts of every question.

YOUR NAME \_\_\_\_\_







**QUESTION 4 (10 pts)**

Consumer 1 has demand curve given by  $P = 100 - 6Q$ .

Consumer 2 has demand curve given by  $P = 50 - 3Q$ .

a. Graph each consumer's demand curve.

b. Find the aggregate demand curve and graph it.

c. What is the total consumer surplus when the price is  $P = 40$ ?





**QUESTION 7 (10 pts)**

Bob is a grad student. He likes two goods: beer and ice cream. Bob's income is \$200. The price of one beer is \$6 and the price of an ice cream is \$5. You observe that Bob is consuming 20 beers and 16 ice creams. You also observe that when Bob's income falls to \$150 his consumption of beer drops to 10 and consumption of ice creams goes up to 18.

a) Draw Bob's two budget constraints and mark the observed consumption bundles.

b) Calculate the Income Elasticity of Demand for ice cream.

c) Is beer normal or inferior good? Is ice cream normal or inferior? Explain.

d) Suppose that income stays at \$200, but the price of beer goes up to \$10. Will Bob buy more or less ice cream?

**QUESTION 8 (14 pts)**

Suppose you are given the following data about the firm, which produces cars.

$Q_{out}$	MR	VC
0	--	
1	30	5
2	20	11
3	14	17
4	8	26
5	4	38

- a. What is the optimal number of cars for this firm? Why?
- b. Suppose you are given additional information that  $AFC = 5$  when 5 units of output are produced. What is the profit of the firm at the optimal  $Q_{out}$ ?

**QUESTION 9 (10 pts)**

- a. What is the result of government subsidies of gas in Iran? Do you think it is a good policy or not?

- b. What happened on the US Airline market after deregulation in 1978?