

NAME: _____

SCORE: _____

**MID-TERM EXAM
AEDE ECONOMICS 503**

November 4, 2008
9.00 am - 10.20 am
Time allowed, 80 minutes
(Take about 20 minutes a question)

Please read each question carefully.

Answer all questions. Remember, you are encouraged to use diagrams to help your written answers to questions. Take care to label and explain all diagrams.

GOOD LUCK!

(1) Define carefully what is meant by the following concepts:

(a) Reflexivity of consumer preferences: (4 points)

(b) The marginal rate of substitution: (4 points)

(c) A firm's marginal social costs: (4 points):

(d) A negative production externality : (4 points)

(e) A community indifference curve: (4 points)

(2) With reference to the diagram on the next page, answer the following questions. (30 points in total)

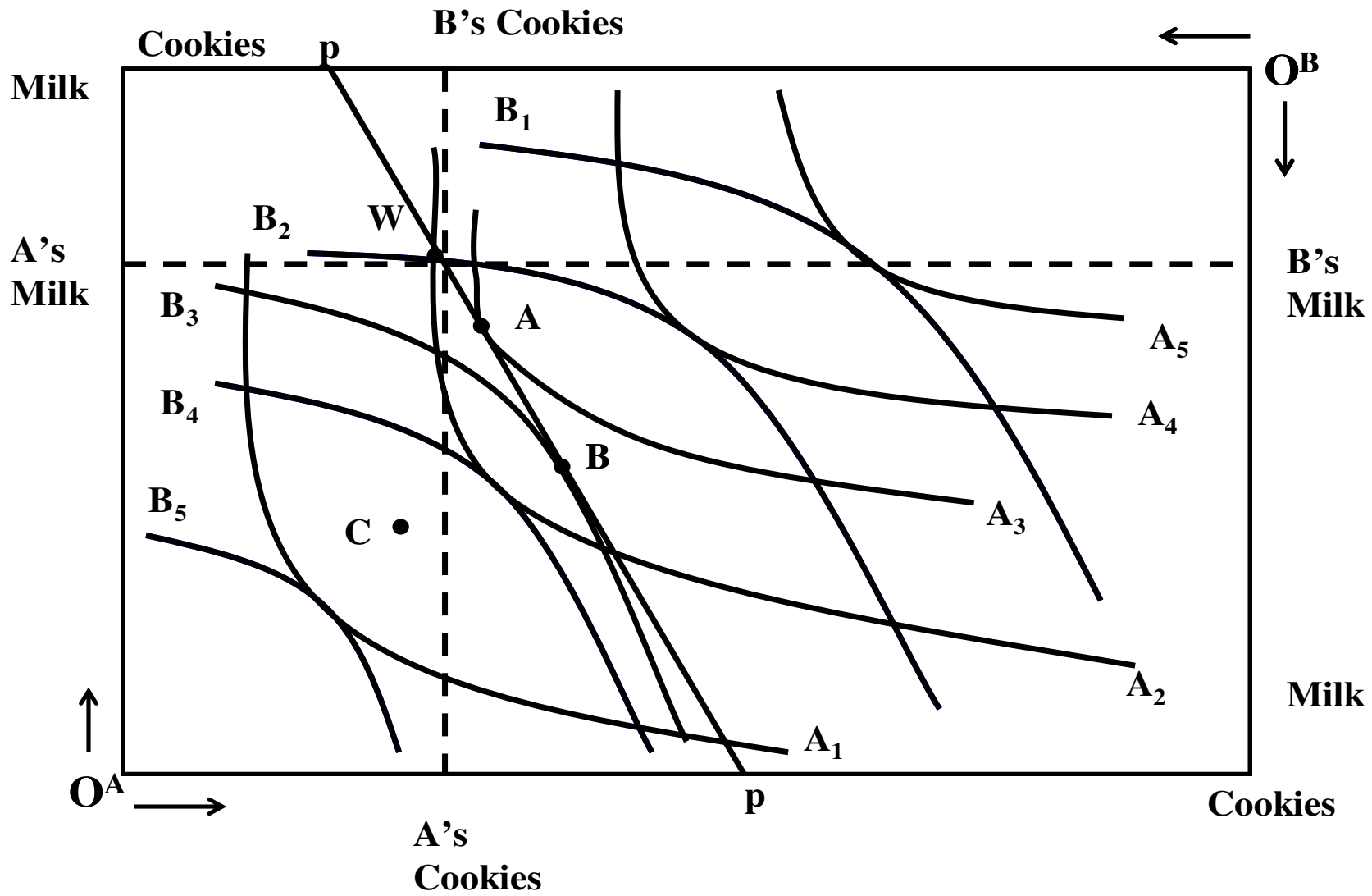
(a) Relative to the endowment point W, would a move to point C be a Pareto improvement? If not, why not? (6 points)

(b) Join up the points in the diagram that make up the contract curve of exchange. Explain carefully why you chose these particular points. (6 points)

(c) Relative to the endowment point W, does consumer A's wealth vary along the price (budget) line pp? (6 points)

(d) Explain why the price line pp does not lead to a competitive equilibrium. (6 points)

(e) Would it be best to change market prices if society decided it preferred the final allocation of goods at C? (6 points)



(3) Indicate whether the following statements are either true or false. Carefully explain your choice of answer. Use diagrams if they will help your answers.

(1 point for true/false, 9 points for explanation)

(a) “It is always possible to make a Pareto improvement once Pareto efficiency has been achieved.” (10 points)

(b) “Even if one good in a bundle of goods is a “bad”, a consumer’s preferences will still be well-behaved.” (10 points)

(4) With reference to the diagram on the next page, answer the following questions. (30 points in total)

(a) Explain what is meant by marginal abatement and marginal pollution costs. (6 points)

(b) In the absence of well-defined property rights, explain why the steel mill will maximize its profits by producing at point X'. (6 points)

(c) Assume the fishery has property rights over the river. Using the diagram, explain why a move from zero pollution at 0 to pollution at X' is a Pareto improvement. Will a move from pollution at X' to X* also be a Pareto improvement? (6 points)

(d) Now assume the steel mill has property rights over the river. Using the diagram, explain why a move from pollution at X' to X* will be a Pareto improvement. Why is X* the Pareto efficient level of pollution? (6 points)

(e) When the fishery has the property rights, which curve in the diagram represents the demand for pollution rights, and which curve represents the supply of pollution rights? (6 points)

