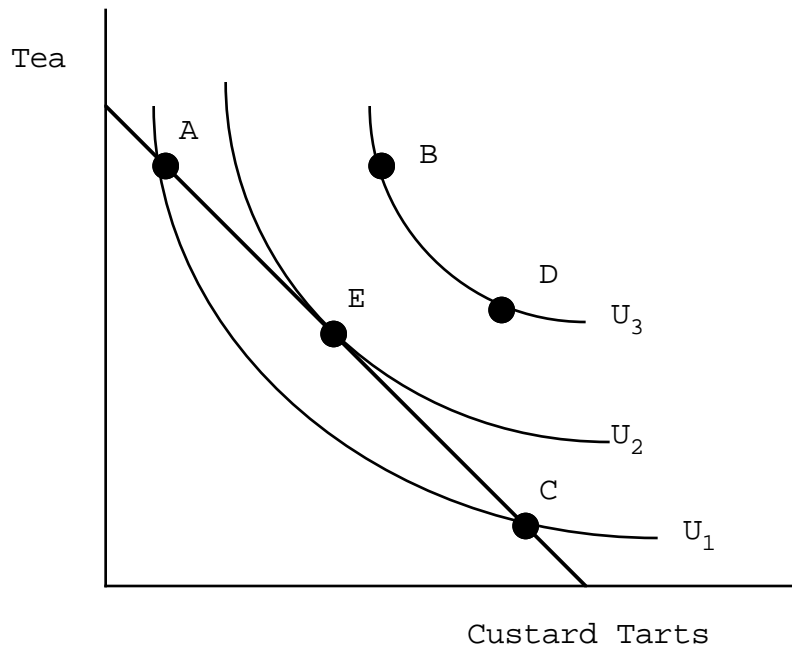


Midterm 1

Part I. Multiple Choice (70 points): For each of the following choose the letter that corresponds to the best answer.

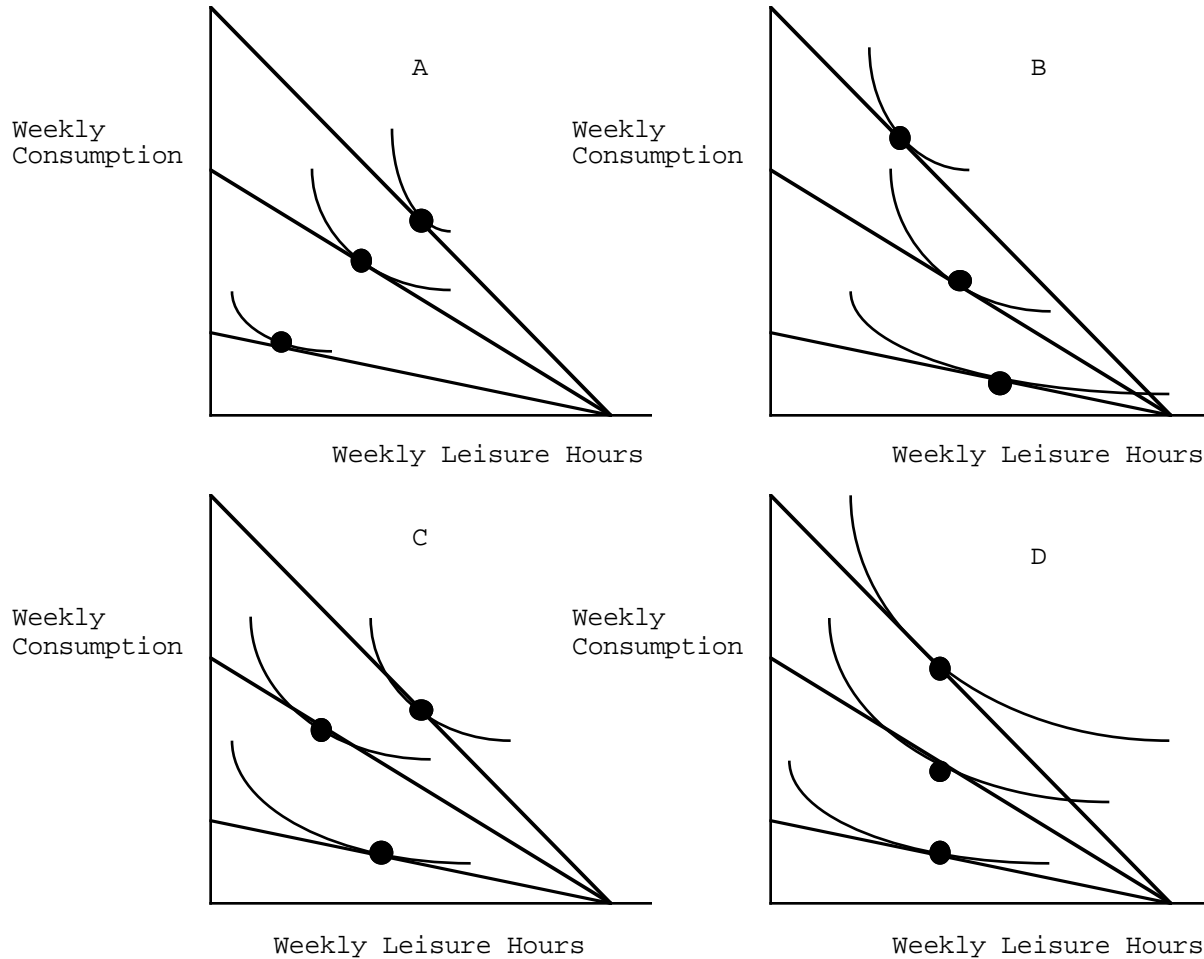
Questions 1 - 4 refer to Abigail's indifference map and budget constraint for custard tarts and tea given in the diagram:



1. The nonsatiation principle implies that Abigail:
 - a) Prefers to move from A to C.
 - b) Prefers to move from B to E.
 - c) Prefers to move from E to B.
 - d) Prefers to move from D to C.
2. Could this graph represent Abigail's preferences if tea is a bad and custard tarts are goods?
 - a) No, when one commodity is a good and the other a bad, indifference curves slope up.
 - b) Yes, as long as $U_1 > U_2 > U_3$.
 - c) Yes, the indifference curves look the same whether we have bads or goods.
 - d) There is not enough information to answer the question.
3. Given the budget constraint and the optimal point E, we can say that:
 - a) Abigail is indifferent between A and C and between B and D, but prefers B to E to A.
 - b) Abigail is indifferent between A and B and between C and D.
 - c) Abigail is indifferent between A and E and C and between B and D, but prefers B to A.
 - d) Since E is optimal for Abigail, it is preferred to B and D.

4. Suppose the price of custard tarts is \$2 and the price of tea is \$1. Then at the point C:
- Abigail's MRS is greater than 2.
 - Abigail's MRS is equal to 2.
 - Abigail's MRS is less than 2.
 - There is not enough information to determine the answer.
5. The transit authority is thinking about raising the fare on its buses. Suppose demand is inelastic. This will lead to:
- A reduction in total revenues.
 - An increase in total revenues.
 - No change in total revenues.
 - Revenues might go up but they might go down as well.
6. Due to a drought in California, the supply of avocados falls and the price of avocados increases. If avocado farmers earn a higher profit as a result of the drought, the market demand for avocados is:
- Elastic.
 - Unitary elastic.
 - Inelastic.
 - There is insufficient data to answer the problem.
7. If a 2% increase in price leads to a 4% decrease in the demand for diamonds, the price elasticity of demand for diamonds is:
- 0.5.
 - 0.5.
 - 2.
 - 2.
8. The sign of the income effect is:
- Always positive.
 - Positive if the price has risen and the good is normal.
 - Positive if the price has risen and the good is inferior.
 - Negative if the price has risen and the good is inferior.
9. The ordinary demand curve of a consumer is more elastic than the compensated demand curve when:
- The good in question is inferior.
 - The good in question is normal.
 - The compensating variation equals the equivalent variation.
 - The consumer surplus equals the compensating variation.
10. Ms. Futurewoman is initially a borrower. Ms. Futurewoman views both current and future consumption as normal goods. After a fall in the interest rate, Ms. Futurewoman:
- Borrows less.
 - Borrows more.
 - Doesn't alter her amount of borrowing.
 - Becomes a saver.

Questions 11 - 14 refer to the following four graphs.



11. An upward sloping labor supply curve corresponds to graph:
 - a) A.
 - b) B.
 - c) C.
 - d) D.

- 12) A perfectly inelastic labor supply curve correspond to graph:
 - a) A.
 - b) B.
 - c) C.
 - d) D.

- 13) At the wages depicted, the substitution effect dominates the income effect in graph:
 - a) A.
 - b) B.
 - c) C.
 - d) D.

- 14) At the wages depicted, the income effect dominates in graph:
 - a) A.
 - b) B.
 - c) C.
 - d) D.

15. The popularity of mutual funds is evidence that most investors are:

- a) Risk-neutral.
- b) Risk-averse.
- c) Risk-loving.
- d) Indifferent to risk.

16. A risk-averse person facing coverage actuarially biased in favor of the insurance company will:

- a) buy full coverage.
- b) buy more than full coverage.
- c) buy less than full coverage.
- d) never buy any insurance.

17. Alex P. Keaton's utility function satisfies the von Neumann-Morgenstern axioms. He will:

- a) Maximize his expected utility.
- b) Maximize his expected income.
- c) Maximize the utility of his expected income.
- d) Minimize the risk of his portfolio.

Part II. Problem (30 points): Answer the following problem graphically and provide a written explanation for your conclusions.

Polonius lives for two period and consumes his endowment point if there are no taxes. Suppose the government is considering three alternative tax policies, namely:

- (i) Tax deductibility of interest payments at the rate t .
- (ii) A tax on interest income at the rate t .
- (iii) Both (i) and (ii).

Polonius, being currently neither a borrower nor a lender, says to himself it does not matter which, if any, of these policies is adopted as far as his utility level is concerned. Is Polonius right or wrong? Why or why not?