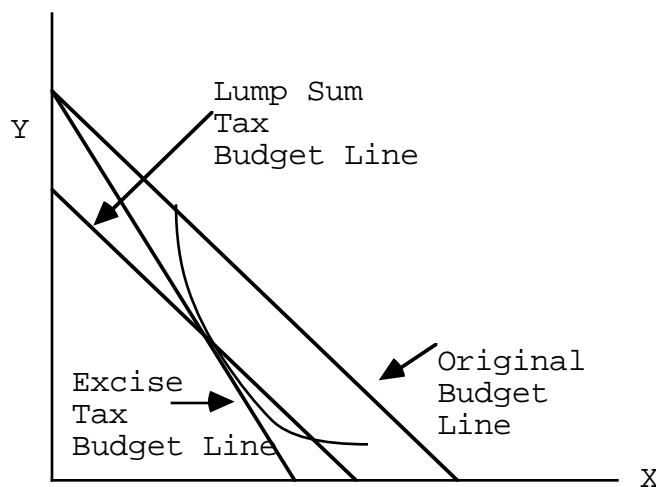


**Mock Midterm 1 Solutions**

**Part I. Multiple Choice (70 points):**

1. When income goes up the slope of the budget line remains the same and the budget line shifts outward. The correct answer is (c).
2. When tennis balls get more expensive, the intercept on the Lemonade axis, C, remains unchanged. The budget line gets steeper. The correct answer is (a).
3. When all prices and income double the budget line doesn't change. The correct answer is (d).
4. When lemonade gets cheaper, the budget line gets steeper. It also rotates out. The correct answer is (c).
5. Note: The income elasticities must average out to 1 since total expenditure must go up as fast as total income. This rules out both (b) and (c). We know both goods can't be inferior. The correct answer is (a).
6. When the income-consumption curve slopes down, one good must be inferior, but you don't know which it is. The correct answer is (d).
7.  $\% \Delta q = 3.4 \times \% \Delta I$ . The correct answer is (c).
8. The correct answer is (a).
9. The indifference curve is tangent to the excise tax budget line. To generate the same revenue, the lump sum tax budget line goes through the tangency point. That means, the lump sum budget line cuts, the indifference curve, and a higher indifference curve can be attained. The correct answer is (a).



10. For a saver, the comparative statics with respect to an interest rate change tells you unambiguously about the effect on future consumption, when both goods are normal. But the effect on current consumption (and therefore on savings) is ambiguous. The correct answer is (d).

11. The budget constraints are kinked and the kink occurs at the endowment point. The budget line is steeper when Rodney is a borrower. The correct answer is (c).

12. C is on the saver's portion of the budget line through A. B is on the saver's portion of the budget line through D. The correct answer is (b).

13. The bundle B lies inside the budget constraint through the endowment point A. The correct answer is (a).

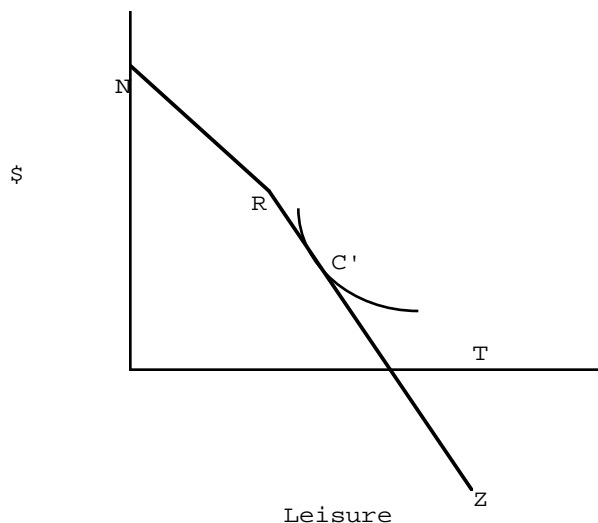
14. A is on a lower budget line at the borrowing rate than D, but is on a higher budget line at the lending rate than D. The correct answer is (b).

15. Both the cash and the curtain yield the same expected dollar return, but taking the curtain is riskier. The correct answer is (b).

16. The correct answer is (a).

17. The correct answer is (a).

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



Bill's optimum under both scenario's is the same bundle. Hence, his labor supply is unaffected and his welfare is unchanged.

For Cindy, the policy looks like an increase in the price of leisure. The new optimum is indicated by point C' in the diagram. It is possible that there is no tangency point on the segment RZ, in which case, the new optimum is at R. The substitution effect

says less leisure. If leisure is normal, the income effect also says less leisure. Thus, the overall effect is less leisure and, therefore, more labor supply.

Cindy is worse off under the policy since, as we have said above, this is just like the price of leisure going up. The set of alternatives available to Cindy has shrunk.

The effect of this policy is to encourage labor supply. In contrast, the AFDC policy discouraged labor supply. The reason is that here, the price of leisure has risen. Under the AFDC policy the price of leisure actually falls to 0. (Recall that the budget line has a flat segment.) But the AFDC policy does raise the welfare of those who participate in the program, while people who are affected by the program under consideration are adversely affected.