

[3]. Given the following Intertemporal Budget Constraint:

$$C_1 + \frac{C_2}{1+r} = Y_1 + \frac{Y_2}{1+r}$$

and the following values:

$$Y_1 = \$10,000$$

$$Y_2 = \$35,000$$

$$(1+r) = 1.7$$

[a] Find the maximum first period income end point  $(1+r)Y_1 + Y_2$  ?

[b] Find the maximum second period income end point  $Y_1 + Y_2/(1+r)$  ?

[c] Assume (as in **Figure C** above) that Indifference Curve I at Point A is the Optimal point where no Saving or Borrowing is occurring and where the Utility associated with I = 62 util units, find  $C_1$  and  $C_2$  ?

[d] Now assume (as in **Figure C** above) that the Optimal point is on a lower Indifference Curve where I = 53 util units and where some Borrowing would need to occur, find  $M_1$  and  $M_2$  ?

[4]. Given the following Intertemporal Budget Constraint:

$$C_1 + \frac{C_2}{1+r} = Y_1 + \frac{Y_2}{1+r}$$

and the following values:

$$Y_1 = \$3200$$

$$Y_2 = \$34,000$$

$$(1+r) = 1.85$$

[a] Find the maximum first period income end point  $(1+r)Y_1 + Y_2$  ?

[b] Find the maximum second period income end point  $Y_1 + Y_2/(1+r)$  ?

[c] Assume (as in **Figure C** above) that Indifference Curve I at Point A is the Optimal point where no Saving or Borrowing is occurring and where the Utility associated with I = 70 util units, find  $C_1$  and  $C_2$  ?

[d] Now assume (as in **Figure C** above) that the Optimal point is on a lower Indifference Curve where I = 68 util units and where some Borrowing would need to occur, find  $M_1$  and  $M_2$  ?