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**HOMEWORK # 4** **ANSWERS**

(a) The present value of Option 1 is  $\frac{12,000}{1.05} + \frac{12,000}{(1.05)^2} + \frac{12,000}{(1.05)^3} = 32,678.98$ . The present

value of Option 2 is  $\frac{B}{(1+0.05)^3}$ . Equating the two and solving for  $B$  we get that  $B =$

37,830.

(b) The present value of Option 2 is  $\frac{C}{(1+0.05)^2}$ . Equating this to 32,678.98 and solving gives

$C = 36,028.57$ .

(c) The present value of Option 3 is  $\frac{D}{(1+0.05)}$ . Equating this to 32,678.98 and solving gives

$D = 34,312.93$ .

(d) Obviously,  $E = 32,678.98$ .

(e) Using the above calculations we have that Options 2, 4 and 5 are worse than Option 1 and Option 3 is better than Option 1. Thus you will choose Option 3.