Finance 5360 Quiz A: 7/28/15 Name Key

Assume that Amorgy Inc. has a 30% of earning an EBIT of $100 million per year, a 45% chance of earning an EBIT of $175 million per year, a 20% chance of earning an EBIT of $225 million per year, and a 5% chance of earning an EBIT of $300 million per year. Assume also that Amorgy's current interest expense equals $200 million. Amorgy is considering issuing additional $100 million of permanent debt at a 10% interest rate. and uses the proceeds to repurchase common stock.

a. How does the value of Amorgy change if markets are perfect? Note: Answer is a number.

b. How does the value of Amorgy change if the only market imperfection is corporate taxes and the corporate tax rate equals 35%? Note: Answer is a number.

c. How does the value of Amorgy change if the only market imperfections are corporate and personal taxes? Assume the corporate tax rate equals 35%, the personal tax rate on equity income equals 15%, and the personal tax rate on interest income equals 25%. Note: Answer is a number.

d. How would your answer to "c" change if we also assume indirect financial distress costs exist? Note: ~~Answer is NOT a number.~~ All you need to do is indicate the direction of the change.

e. How would your answer to "d" change if we also assume the presence of stockholder-manager conflict? Note: ~~Answer is NOT a number.~~

Interest expense on new debt = 10 million; Total interest = 210 million

a. $0 or no change +10

b. $100(.35) = 35$ million +15

c. +5 $T^* = 1 - \left(\frac{(1-.25)(.35)}{(1-.25)}\right)(1-.15)$ (+15, +5, +5, +5) $= -.0342 \Rightarrow 100(-.0342) = -3.42$ million +5

d. lower (more negative) +5

e. higher (less negative) +5