Question #1 of 12

The executive management of Global Capital Advisors (GCA) is considering making a new acquisition that needs a significant amount of new capital. Based on the pecking order theory, GCA's *most appropriate* financing decision is to use:

A) debt financing, because it is the cheapest financing option. ❌

B) equity financing, because it does not increase the firm's leverage. ❌

C) internal financing, because it is least likely to send a negative signal to investors. ✅

Explanation

Based on the pecking order theory, a firm's management will select the financing option that sends the least negative signals—and is, therefore, least visible to investors. Internal financing is most preferred, followed by debt financing, while equity financing is the least preferred choice.

(Module 27.2, LOS 27.d)

Question #2 of 12

According to the static trade-off theory:

A) the amount of debt used by a company should decrease as the company's corporate tax rate increases. ❌

B) new debt financing is always preferable to new equity financing. ❌

C) there is an optimal proportion of debt that will maximize the value of the firm. ✅

Explanation

The static trade-off theory seeks to balance the costs of financial distress with the tax shield benefits from using debt. Under the static trade-off theory, there is an optimal capital structure that has an optimal proportion of debt that will maximize the value of the firm.

(Module 27.2, LOS 27.d)

Question #3 of 12

A firm is planning a $25 million expansion project. The project will be financed with $10 million in debt and $15 million in equity stock (equal to the company's current capital structure). The before-tax required return on debt is 10% and 15% for equity. If the company's tax rate is 35%, what cost of capital should the firm use to determine the project's net present value?

A) 9.6%. ✗

B) 12.5%. ✗

C) 11.6%. ✓

Explanation

Weight of equity = $15 million / ($10 million + $15 million) = 60%

Weight of debt = $10 million / ($10 million + $15 million) = 40%

WACC = $0.60(k_{CE})$ + 0.40(after-tax k_D)

WACC = $0.60(0.15)$ + $0.40(0.10)(1 - 0.35)$ = $0.09 + 0.026$ = 0.116 or 11.6%

(Module 27.1, LOS 27.a)

Question #4 of 12

A financial services company requires all new hires in senior management positions to sign noncompete agreements. The costs associated with these noncompete agreements are an example of:

A) monitoring costs, a component of pecking order theory. ✗

B) bonding costs, a component of the net agency costs of equity. ✓

C) bonding costs, a component of pecking order theory. ✗

Explanation

Bonding costs relate to implicit and explicit costs intended to make it less desirable for managers to leave the company. These include the implicit costs of noncompete agreements and insurance premiums to guarantee performance. Bonding costs, along with monitoring costs and residual losses, are components of the *net agency cost of equity*, which relates to the net costs of minimizing the inherent conflict of interest between managers and shareholders.

Monitoring costs relate to costs incurred by shareholders to monitor and supervise management, including shareholder reporting expenses and board of directors compensation.

Pecking order theory relates to managers' preference for selecting financing options, like internally generated financing, that would be viewed the least negatively by shareholders.

(Module 27.2, LOS 27.d)

Question #5 of 12

Under the assumptions of Modigliani and Miller's Proposition I, the value of a firm:

A) is not affected by its capital structure. ✓

B) increases as the use of debt financing rises. ✗

C) decreases as the use of equity financing rises. ✗

Explanation

According to Modigliani and Miller's Proposition I, under certain assumptions, including the absence of taxes and bankruptcy costs, the value of a firm is unaffected by its capital structure.

(Module 27.2, LOS 27.c)

Question #6 of 12

Under the static tradeoff theory, the optimal capital structure of a firm is at the point where the:

A) value of an unlevered firm is at its maximum. ✗

B) difference between the value of a levered firm and unlevered firm is at its maximum. ✓

C) cost of financial distress is at its minimum. ✗

Explanation

The optimal capital structure of a firm occurs at a point where the value of a levered firm is at its peak. Because the value of an unlevered firm is constant (there is no tax benefit from debt and no cost of financial distress), the point where the value of a levered firm is at its peak is also the point where the difference between the value of a levered firm and the value of an unlevered firm is at its maximum.

(Module 27.2, LOS 27.d)

Question #7 of 12

The conclusion of Modigliani and Miller's capital structure model with taxes is that:

A) there is a trade-off between tax savings on debt increased risk of bankruptcy. ✗

B) capital structure decisions do not affect the value of a firm. ✗

C) firms should be financed with all debt. ✓

Explanation

Because MM with taxes does not consider costs of financial distress, it concludes that tax savings of debt financing are maximized at 100% debt.

(Module 27.2, LOS 27.c)

Question #8 of 12

According to the static tradeoff theory of capital structures, the:

A) cost of equity is upward sloping. ✓

B) value of the tax shield from additional borrowing initially increases, then decreases. ✗

C) weighted average cost of capital (WACC) initially increases, then decreases. ✗

Explanation

The cost of equity is upward sloping, because as leverage increases, the cost of equity increases.

According to the static tradeoff theory, WACC initially decreases with additional debt financing, but then rises when the increase in the expected value of financial distress outweighs the tax benefits of additional debt. The tax shield (benefit), however, will increase as borrowing increases.

(Module 27.2, LOS 27.d)

Elenore Rice, CFA, is asked to determine the appropriate weighted average cost of capital for Samson Brick Company. Rice is provided with the following data:

- Debt outstanding, market value $10 million
- Common stock outstanding, market value $30 million
- Marginal tax rate 40%
- Cost of common equity 12%
- Cost of debt 8%

Samson has no preferred stock. Assuming Samson's ratios reflect the firm's target capital structure, Samson's weighted average cost of capital is *closest to*:

A) 9.8%. ✗

B) 10.4%. ✗

C) 10.2%. ✓

Explanation

The capital structure ratios are:

- Debt to total capital = $10 / ($10 + $30) = 25%
- Equity to total capital = $30 / ($10 + $30) = 75%

The formula for the WACC (if no preferred stock) is:

$$WACC = w_d k_d (1 - t) + w_{ce} k_{ce}$$

where w_d is the percentage of operations financed by debt, w_{ce} is the percentage of operations financed by equity, t is the marginal tax rate, k_d is the before-tax cost of debt, and k_{ce} is the cost of common equity.

$$WACC = 0.25(0.08)(0.60) + 0.75(0.12) = 0.102 = 10.2\%.$$

(Module 27.1, LOS 27.a)

An analyst covering the reinsurance sector observes that the capital structure of three of the covered firms recently deviated from their targets. That analyst should be *most* concerned with:

A) Firm C, whose equity weight increased relative to target given the minimum lot size requirement when it issued new equity. ✗

B) Firm B, whose debt weight increased relative to target following the issuance of new debt. ✓

C) Firm A, whose equity weight declined relative to target given a drop in the market value of the firm's equity. ✗

Explanation

The analyst should be most concerned with Firm B because by issuing new debt, the management has intentionally altered the capital structure weights. Unintentional or unavoidable deviations from a firm's target capital structure would be less cause for concern; these include deviations caused by fluctuations in the market value of equity as well as minimum lot size requirements when issuing new equity, which may make it difficult to adhere to precise capital structure weights.

(Module 27.2, LOS 27.d)

Question #11 of 12

Removing the assumption of no taxes, but keeping all of Modigliani and Miller's other assumptions, which of the following would be the optimal capital structure for maximizing the value of a firm?

A) 100% equity. ✗

B) 100% debt. ✓

C) 50% debt and 50% equity. ✗

Explanation

If MM's other assumptions are maintained, removing the no tax assumption means that the value of the firm is maximized when the value of the tax shield is maximized, which occurs with a capital structure of 100% debt.

(Module 27.2, LOS 27.c)

Question #12 of 12

Which of the following statements regarding Modigliani and Miller's Proposition II with taxes is *most accurate*?

A) The value of the firm is maximized at the point where the WACC is minimized. ✓

B) Companies should use a 50% equity/50% debt capital structure to maximize value. ❌

C) The tax shield provided by debt causes the WACC to increase as leverage increases. ❌

Explanation

The tax shield provided by debt causes the WACC to decrease as leverage increases. The value of the firm is maximized at the point where the WACC is minimized, which is 100% debt under the MM assumptions.

(Module 27.2, LOS 27.c)