

Q-1.

Solution: C.

When the value of the debt exceeds 1 million, the yield of the bonds issued changed. So the break point for the company occurs when 40% of the whole capital exceeds 1 million. Break point = 1 million/40% = 2.5 million.

Q-2.

Solution: C.

The point at which the marginal cost of capital intersects the investment opportunity schedule is the optimal capital budget.

Q-3.

Solution: A.

Use the following formula

$$r_e = \left(\frac{D_1}{P_0(1-f)} \right) + g = \left(\frac{0.32}{14.69(1-0.05)} \right) + 0.1 = 12.29\%$$

Q-4.

Solution: C.

C is correct. Flotation costs are an additional cost of the project and should be incorporated as an adjustment to the initial-period cash flows in the valuation computation.

A is incorrect. Expensing is an accounting treatment of the costs, not a capital budgeting treatment.

B is incorrect. Including the flotation cost in the estimated cost of capital is theoretically incorrect.

By doing so we are adjusting the present value of the future cash flows by a fixed percentage, i.e., the adjusted cost of capital.

Q-5.

Solution: A.

$$DTL = \frac{Q \times (P - VC)}{Q \times (P - VC) - FC - I} = \frac{5 \times (80 - 40/5)}{5 \times (80 - 40/5) - 25 - 35} = \frac{360}{300} = 1.2$$

Degree of total leverage: $\Delta\%$ net income / $\Delta\%$ units sold

$$\Delta\% \text{ net income} = 1.2 \times 15\% = 18\%$$