39. A firm has a debt ratio of 0.4 . The firm also has a debt beta of 0.75 and an equity beta of 1.50 . The expected return on the market is currently 11% and the risk-free interest rate is 5% .

What is the required return on an investment project that expands the firm's existing operations while maintaining the current target capital structure?

(A) 10%

(B) 11%

(C) 12%

(D) 14%

(E) 15%

22. A company invests 20,000 in a project. The project is expected to have cash flows of 3000 at the end of each year for 15 years, with the first cash flow expected one year after the initial investment. Using the project's after-tax weighted average cost of capital, the project has a net present value of 2496.27 .

The following gives additional information about the company:

(i) The company is financed with 40% equity and 60% debt.

(ii) The company's marginal tax rate is 25% .

(iii) $r_E = 2r_D$, where r_E is the cost of equity and r_D is the cost of debt.

Calculate r_E .

(A) 10.25%

(B) 12.40%

(C) 13.25%

(D) 14.60%

(E) 16.40%