Simple LBO example

You are considering taking over a target corporation. You would operate the asset for 5 years and then sell it at an exit trailing EV-to-EBITDA multiple of 11.

Last year's EBITDA was $100M. You can acquire the property at an entry trailing EV-to-EBITDA multiple of 10. The target has $50M in excess cash and other non-operating assets on its books. You will need to pay book value for those.

You are going to finance 80% of the overall purchase with a fixed-payment debt with yearly payment, a 20-year term, and a yearly interest rate of 6%.

You expect to grow EBITDA by 1% a year for the next 5 years. You expect CAPEX to be $150M in year 1 and no CAPEX thereafter. Linear depreciation deductions 5% of the purchase price and, starting in year 2, 5% of the year-1 capital expenditure. Working capital is 25% of EBITDA throughout.

The company's effective income tax rate is 20%. You are not subject to any capital gains taxation so that cash-flows from reversion are untaxed.

1) You require a 15% return at the equity level from this investment. What is the NPV of the equity investment?
2) What is the IRR on this investment at the equity level?
3) What is the equity multiple on this investment?