

Note: If the question in the video is labeled with a number, i.e. 1,2,3, please ignore. Questions are labeled in the playlist by number and are in the same order in this pdf.

1. David's company is considering the acquisition of a machine which belongs to a class with CCA rate of 51%. The cost of the machine is \$1,396,000. The expected economic life is 8 years. Salvage value is \$227,000. The discount rate is 7.90% and the marginal tax rate is 30%. Assume the half-year rule applies. What is the CCA tax shield for year 2?

- a. \$312,006
- b. \$530,410
- c. \$348,860
- d. \$104,658
- e. \$159,123

2. The Koi Koi Company has \$1,259,000 profit before tax, annual depreciation expense of \$527,000 and a marginal tax rate of 35%. Calculate its cash flow from operations.

- a. \$1,160,900
- b. \$1,601,550
- c. \$1,002,800
- d. \$1,786,000
- e. \$1,345,350

3. Alpha Corporation has just invested \$1,200,000 in new equipment which has a useful life of 6 years and a salvage value of \$200,000. The Corporation has a tax rate of 25% and the equipment falls into a 30% CCA class and the half-year rule applies. The new equipment would result in annual pre-tax savings of \$350,000 in each of the 6 years starting in Year 1. The equipment requires an investment in working capital of \$60,000 at $t=0$ which is fully recovered in Year 6. The company's cost of capital is 12%. What is the present value of the CCA tax shields over the project's life?

- a. \$221,767
- b. \$184,712
- c. \$258,597
- d. \$147,770
- e. \$295,539

4. A company has purchased a machine with a CCA rate of 20% (the half-year rule applies) at a cost of \$773,000 and has a tax rate of 30%. By how much will NPV change if the company is able to obtain a \$23,000 salvage value for its machine at the end of the project life in year 7? Assume a discount rate of 6.80%, and that all else remains the same.

- a. \$11,263
- b. \$16,689
- c. \$2,825
- d. \$14,512
- e. \$3,249

5. A firm has developed a product that has a 3-year life expectancy. The project will require an initial investment of \$95,000 that will be depreciated straight-line to zero over the life of the product. The product can be sold for \$50.0 per unit with a manufacturing cost of \$15.0 per unit; any additional costs are fixed costs in the amount of \$18,000 per year (excluding depreciation). The firm expects to sell 10,000 units of the product per year. What is the annual cash flow from operations? Assume a required rate of return of 9.0% and a corporate tax rate of 30%.

- a. \$264,067
- b. \$232,400
- c. \$241,900
- d. \$210,233
- e. \$219,733

6. ABC Corp. spends \$618,000 on new machinery for a new project. The machine falls into a 25% CCA class (half-year rule applies) and has a 10-year useful life. The company expects to use the machine for two years and then sell it for \$X, which is equivalent to the remaining UCC (undepreciated capital cost) at the end of year 2. What is \$X?

- a. \$482,813
- b. \$473,156
- c. \$405,563
- d. \$347,625
- e. \$135,188

7. What is the amount of the annual depreciation tax shield for a firm with a net income of \$754,000; depreciation expense of \$35,300; and a marginal tax rate of 33%? (Assume that the half-year rule does not apply.)

- a. \$23,651
- b. \$35,300
- c. \$11,649
- d. \$9,708
- e. \$237,171

8. Mac Inc. is looking to acquire a new machine that will cost \$100,000 and generate after-tax cash inflows of \$35,000 for four years. Mac Inc. uses a 12 percent opportunity cost of capital. What is the NPV of the new machine?

- A) \$6,307.23
- B) \$6,007.23
- C) \$6,107.23
- D) \$6,070.23
- E) \$6,370.32

9. What is the amount of the operating cash flow for a firm with \$500,000 profit before tax, \$100,000 depreciation expense, and a 35 percent marginal tax rate?

- A) \$260,000
- B) \$325,000
- C) \$360,000
- D) \$425,000
- E) \$390,000

10. What is the present value of the incremental tax shields generated if a company purchases equipment to be used in business operations for \$250,000 and the equipment has a CCA rate of 25%? You intend to sell the equipment in year 8 for a salvage value of \$8,000. At the time of sale, you still anticipate having other assets in the class. The tax rate is 35% and the company uses a 12% rate of return.

- A) \$55,109
- B) \$55,190
- C) \$55,900
- D) \$56,718
- E) \$55,954

11. What is the cash flow from operations if a project generates revenues of \$1000, cash expenses of \$600 and depreciation charges of \$200 and the tax rate is 35%?

- A) \$300
- B) \$230
- C) \$260
- D) \$540
- E) \$330

Johnson & Johnson acquires a depreciable asset at a cost of \$730,000 that has a useful life of 5 years and a salvage value of \$100,000. The company has a tax rate of 30% and the asset falls into a 12% CCA class. The acquisition of the asset would result in annual pre-tax savings of \$275,000 in each of the 5 years starting in year 1. The acquisition of the asset requires an investment in working capital of \$32,500 at $t=0$ which is fully recovered in year 5. The company is required to earn a minimum rate of return of 10%.

12. What is the CCA in Year 2?

- A) \$186,150
- B) \$ 87,600
- C) \$ 43,800
- D) \$ 77,088
- E) \$ 82,344

13. What is the Present Value of CCA Tax Shield?

- A) \$185,922.57
- B) \$14,776.74
- C) \$114,024.49
- D) \$103,864.26
- E) \$86,083.33

14. What is the asset's Net Present Value?

- A) \$666,804.23
- B) \$823,173.32
- C) \$153,362.79
- D) \$298,327.86
- E) \$273,101.85

15. Calculate the annual cash flow from operations for a project with sales of 5 million units at a price of \$2 per unit, variable cost of \$0.75, annual fixed cost (excluding depreciation) of \$3 million and annual depreciation of \$2 million. Assume the corporate tax rate is 30%.

- A) \$ 3,875,000
- B) \$ 375,000
- C) \$ 875,000
- D) \$ 1,250,000
- E) \$2,875,000

16. Tanga Corp. has developed a product that has a 3 year life expectancy. The project will require an initial investment of \$60,000 that will be depreciated straight line to zero over the life of the product. The product can be sold for \$20/unit with a manufacturing cost of \$10/unit; any additional costs are fixed costs in amount of \$30,000 per year. If Tanga expects to sell 7,000 units per year, what is the cash flow from operations in the 3rd year, assuming a required return of 12% and a corporate tax rate of 30%?

- A) \$17,000
- B) \$20,000
- C) \$34,000
- D) \$48,000
- E) \$55,000