

Assignment 2

Answers to the in-chapter questions and answers to the chapter exercises for chapters 7 to 12 are to be bound up in one PDF document and submitted to UM Learn.

1. Answer the In-chapter questions in Chapter 7 Logistics. Take a screen shot of your answers and paste them in front of the exercise answers for Chapter 7. (1%) Answer the following Logistics exercise questions. (1.5%)
 - A. Put together an Excel worksheet with solver to determine the schedule of feed supplement shipments from warehouses to livestock operations which minimizes shipment costs while meeting the delivery demands of the livestock operations and staying within the capacities of the warehouses.

Warehouse A has capacity to store and handle 900 units of feed supplement per time period, warehouse B - 500 units, and warehouse C - 400 units. Livestock operation 1 requires 300 units of feed supplement per time period, operation 2 - 400 units, operation 3 - 200 units, operation 4 - 350 units, operation 5 - 450 units, and operation 6 - 100 units. The costs of transporting one unit of feed supplement from each warehouse to each livestock operation are listed as follows: A1 (warehouse A to livestock operation 1) A1 1.60, A2 1.80, A3 1.10, A4 1.50, A5 1.70, A6 1.00, B1 1.40, B2 1.20, B3 1.30, B4 1.10, B5 0.90, B6 0.80, C1 1.30, C2 1.50, C3 1.70, C4 1.80, C5 1.90, C6 2.00.

2. Answer the In-chapter questions in Chapter 8 Accounting. Take a screen shot of your answers and paste them in front of the exercise answers for Chapter 8. (1%) Answer the following Accounting exercise questions. (1.5%)
 - A. Use Microsoft Excel to construct a Transactions Journal. Enter Transactions a to k in the Transactions Journal. Construct the Balance Sheet and Income Statement, shown in the chapter. Create links between the Transactions Journal and the financial statements to carry forward the accounting figures.
 - B. Analyze the financial statements displayed by calculating the Current Ratio, Working Capital, Solvency, and Profitability. Is the business liquid, solvent, and profitable?

3.C Ch. 9 Human Resources Exercise

3. **Answer the In-chapter questions in Chapter 9 Human Resources. Take a screen shot of your answers and paste them in front of the exercise answers for Chapter 9. (1%) Answer the following Human Resources exercise questions. (1.5%)**
 - A. Draw the line diagram in Microsoft Excel that shows the cost of extra effort ($c(e^+)$, where $e > 10$) that forms the base for the described employee incentive contract.

4. **Answer the In-chapter questions in Chapter 10 Commodity Marketing. Take a screen shot of your answers and paste them in front of the exercise answers for Chapter 10. (1%) Answer the following Commodity Marketing exercise questions. (1.5%)**
 - A. Use the data displayed on page 87 of the chapter and Microsoft Excel to construct a time series graph of futures, spot, and sales, and a frequency distribution of spot and sales prices.

5. **Answer the In-chapter questions in Chapter 11 Branded Products. Take a screen shot of your answers and paste them in front of the exercise answers for Chapter 11. (1%) Answer the following Branded Products exercise questions. (1.5%)**
 - A. Construct an Excel model with solver to solve for the profit maximizing levels of price and quantity for the profit function, $Z = qp - c_f - qc_v$, where $c_f = 8000$, $c_v = 6$, and the demand function for the product is $q = 2400 - 24p$. Illustrate the solution with a graph of the profit function, showing the profit maximizing price level.
 - B. For an oligopoly as described in the chapter, construct an Excel model to solve for the profit maximizing price of B_2 which is P_2 when Firm 2 expects P_1 to be 10.

6. **Answer the In-chapter questions in Chapter 12 Capital Budgeting. Take a screen shot of your answers and paste them in front of the exercise answers for Chapter 12. (1%) Answer the following Capital Budgeting exercise questions. (1.5%)**
 - A. Calculate the value at the end of the tenth year of a one-time payment of 100,000 invested at an annualized return of 16 percent. Returns are compounded annually.

- B. Calculate the value at the end of the tenth year of a one-time payment of 100,000 invested at an annualized return of 16 percent. Returns are compounded quarterly.
- C. Calculate the value at the end of the fifth year of an annuity paid where 100,000 is paid at the end of each year at an annualized return of 16 percent. Returns are compounded annually.
- D. Calculate the present value of 100,000 to be received at the end of 10 years using an annualized discount rate of 16 percent. Returns are compounded annually.
- E. Calculate the present value of 100,000 to be received at the end of 10 years using an annualized discount rate of 24 percent. Returns are compounded annually.
- F. Calculate the present value of an annuity where 100,000 is received at the end of each of the next five years using a discount rate of 16 percent. Returns are compounded annually.

- G. Construct a Microsoft Excel worksheet to determine whether or not the farmer should make the following investment: A farmer is thinking of purchasing a combine solely to do custom combining for neighboring farms. It is a means of creating an income stream for his son. The combine costs 400,000 and will result in annual cash inflows of 180,000 and annual cash outflows of 40,000. The combine will be used for three years then sold for an estimated salvage value of 166,600. The CCA rate is 30 percent, the farm's marginal tax rate is 25 percent, and the required return (discount rate) for the investment is 12 percent.