**Week 5 – Signature Assignment**

**Chapters 7 & 8**

**Instructions:** Complete the following exercises in Microsoft Excel (preferred). If the assignment is completed in Microsoft Word, provide explanations (100 words) to each of the answers along with any relevant calculations to receive credit. Your part in completing the assignment is to demonstrate an understanding and application of the concepts and problem-solving. Review the grading rubric below to adhere to assignment/grading criteria.

A project has an initial cost of $45,000. The incremental inflows associated with the project are $20,000 in year 1, $15,000 in year 2, $10,000 in year 3 and $8,000 in year 4. All cash inflows are at the end of the year. The appropriate discount rate for this project is 8.0%. (HINT: Possibly use Excel Worksheet)

1. What is the project’s payback period?

a. 5.00 Years

b. 3.00 Years

c. 8.00 Years

d. 7.00 Years

1. What is the project’s discounted payback period?

a. 2.87 Years

b. 3.97 Years

c. 10.25 Years

d. 6.75 Years

1. What is the project’s net present value?

a. $197.16

b. $278.96

c. $345.21

d. $225.35

1. What is the project’s internal rate of return? Calculate to two decimal places.

a. 3.52%

b. 8.23%

c. 5.35%

d. 2.75%

1. What is the project’s modified internal rate of return? Calculate to two decimal places.

a. 3.52%

b. 7.60%

c. 5.35%

d. 8.12%

A project has an initial cost of $45,000. The incremental inflows associated with the project are $20,000 in year 1, $15,000 in year 2, $10,000 in year 3 and $8,000 in year 4. All cash inflows are at the end of the year. The appropriate discount rate for this project is 8.0%. The component costs of capital and their weights are given below:

1. What is the project’s weighted-average cost of capital?

kd = 10% wd = 45%

kp = 5% wp = 10%

ke = 8% we = 45%

T = 40%

a. 6.8%

b. 2.4%

c. 4.3%

d. 8.5%