**Question Describe IN WORDS the three reasons why Net Income and CFO could differ? (4 points)**

1)

2)

3)

**Question Compare and contract Free Cash Flow, Cash Flow (balance sheet to balance sheet) and CFO (6 points)**

**Question Define the following terms (8 points):**

1. FCFF
2. Accrual
3. Impairment
4. Censored data
5. PMI
6. Annuity Due
7. LIFO reserve

**Question (4 points)** Define underinvestment and overinvestment. Describe when each is likely to occur?

**Question**  **(6 points)** Describe the differences between the dividend discount model, free cash flow model, and residual income model.

**Question (4 points)** Which is a better indicator of a firm’s quality of earnings, CFO or Net Income? Why**?**

**Question (4 points)** What are the key differences between Economic and Accounting Profit?

**Question (8 points)** Describe data validation, absolute cell referencing, custom formatting, naming a range in Excel. Why is this important for financial modeling? Use examples.

**Question (4 points)** Why is Ginnys’s Restaurant such an important part of the course?

**What would happen in Ginny’s Restaurant if you introduce each of the following factors? Explain your logic. (8 points)**

1. Taxes
2. Differential interest rates
3. Information asymmetry

**Question (10 points)**

Reproduce the Sensitivity Analysis spreadsheet in your course packet. Add as many functions and variables to make it as dynamic (flexible) as possible. That is, your xls should be BETTER than the one in the course packet.

**Question (4 points)**

Define in detail the different components of the equity section on the balance sheet including: Par Value, Additional Paid In Capital, Retained Earnings, Treasury Stock, Non-controlling interest, Other Comprehensive Income

**Question (4 points)**

Describe the difference between a sensitivity analysis and scenario analysis.

**Question (4 points)**

Is Ginny’s restaurant more likely to experience underinvestment or overinvestment?

**Question (10 points)**

You have just graduated from Hofstra University and have taken a job as research associate at a major investment bank. Your first assignment is to estimate the compensation for a sample of randomly selected CEO’s. You plan on using standard regression estimation techniques.

1. Write your own linear model (i.e. equation) specifying two independent variables.
2. Explain your rationale for using those two factors.
3. Add a third factor that has a non-linear effect. Why do you expect it to have a non-linear effect? Write the model below.
4. Add a fourth factor that is a dummy, i.e. qualitative variable. Explain its hypothesized impact.
5. What is diagnostic checking? Why is it important for economic modeling?

**Question (10 points)**

Suppose you have just graduated Hofstra and accepted a job with a $100,000 salary. Your 401(K) will be maxed at 5% employee contribution and 1-1 employer match. You will work for exactly the next 45 years (for simplicity assume your salary is unchanged). At your 5 year review you will receive a one time $20,000 bonus which you will deposit in your retirement plan. You will live exactly 25 years after you retire. You plan to leave $200,000 to Hofstra to name a building after yourself. If you expect to earn 6% return annually, what are your annual withdrawals?

**Question (6 points)**

Describe the difference between Pearson’s correlation (linear dependence) and Spearman’s rank correlation.

BONUS:
Construct your own example in excel.

**Question (20 points)**

**Ginny’s Restaurant Problem**

Ginny is endowed with $ 8million and is deciding whether to invest in a restaurant. Assume perfect capital markets with an interest rate of 6%.

|  |  |  |  |
| --- | --- | --- | --- |
| **Investment Option** | **Investment (millions)** | **End of Year 1 CFs (millions)** | **End of Year 2 CFs (millions)** |
| 1 | 2 | 1.8 | 1.8 |
| 2 | 3 | 4.3 | 1.0 |
| 3 | 4 | 5.4 | 1.4 |
| 4 | 5 | 5.2 | 1.6 |

1. List 4 perfect capital market assumptions.

1. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

2. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

3. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

4. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. Which investment option should Ginny choose?
2. Which investment option can be eliminated from consideration? Why?

**Ginny is actively pursuing another business venture as a ticket scalper. She estimates that for a $2 million investment in inventory she can resell her tickets for $6 million over the next two years (cash flows realized in exactly two years). Assume the same 6% interest rate.**

1. What is the NPV of the Ticket Brokering venture?
2. What is the new value of Ginny’s Corporation?
3. Suppose Ginny does not have the $2 million to start the new venture. Instead, she wants to raise equity capital by issuing 100,000 shares. What price will new investors be willing to pay?