

## C. DETAILS

### I. Question 1:

- Step 1: Determine the future value and time period based on your specific student ID number

#### **Example:**

If student ID is S3409112:

- Future value needed =  $\$1,000 \times 2 = \$2,000$
- Time period = 2 years

- Step 2: Identify the interest rate

#### **Example:**

If student ID is S3409112:

- Annual interest rate = 4%
- Step 3: Calculate the present value for each compounding frequency using the appropriate formula:
  - Annual compounding:  $\text{Present Value} = \text{Future Value} / (1 + r)^t$
  - Quarterly compounding:  $\text{Present Value} = \text{Future Value} / (1 + r/4)^{4t}$
  - Monthly compounding:  $\text{Present Value} = \text{Future Value} / (1 + r/12)^{12t}$

Where  $r$  is the annual interest rate and  $t$  is the time period in years.

- Step 4: Plug in the values and calculate the present value needed under each scenario.
- Step 5: Compare the results - the present value will be lower with more frequent compounding. Explain how compounding frequency impacts the upfront deposit amount needed. More frequent compounding results in faster growth of the investment, requiring less money to be deposited initially to reach the specified future value.

### II. Question 2:

#### 1. Analyze effects on surplus and deficit units:

- For surplus units, the interest rate increase makes saving more attractive due to higher returns. This encourages more saving by households.
- For deficit units, borrowing becomes more expensive due to higher interest costs. This discourages business investment and government spending funded by debt.
- Illustrate with a graph:
  - + Draw supply and demand for loanable funds graph
  - + An interest rate increase shifts the supply curve right as savers save more
  - + This raises the equilibrium interest rate and reduces quantity of funds borrowed

## **2. Explain further interest rate increases:**

- If SBV raises rates further, the supply of loanable funds will continue shifting right
- This will place upward pressure on interest rates
- Rates will rise until a new equilibrium is reached where quantity supplied equals quantity demanded at the higher interest rate
- The stepwise rate increases are a tightening of monetary policy to reduce borrowing and investment in order to control inflation.

## **III. Question 3:**

- Examine the shape of the yield curve in the graph:
- + Consider if short-term yields are lower than long-term yields (normal/positively sloped)
- + Or if short-term yields are higher than long-term yields (inverted curve)
- + Or if yields are relatively consistent across maturities (flat curve)

### **Example:**

- In this case, the curve is upward sloping - longer maturity bonds have higher yields.
- This is a normal or positively sloped yield curve.
- Identify financial theories that relate to the shape:
  - + For a normal curve, consider liquidity preference theory and expectations hypothesis
  - + For an inverted curve, consider signaling tighter monetary policy or an economic slowdown
  - + For a flat curve, look at uncertainty about the future outlook
- Explain how the theory fits the shape:

### **Example:**

- Expectations theory fits a normal curve because investors expect rates to rise in the future.
- Liquidity preference fits an inverted curve because investors prefer short term in uncertain times.
- Cite evidence from the graph:

### **Example**

- A large gap between short-term and long-term yields supports expectations of rising rates.
- A flat curve suggests investors require similar yields across maturities due to economic uncertainty.
- Interpret the overall implications

### **Example**

- Normal curve signals economic growth and upward rate trajectory expected
- Inverted curve may signal impending recession based on investor preferences
- Flat curve indicates uncertain economic outlook ahead

## **IV. Question 4:**

1. Identify the major types of financial institutions:
  - Banks - deposit-taking institutions that provide loans
  - Insurance companies - provide risk management products
  - Investment banks - help raise capital for companies through securities issuance
  - Pension funds - manage retirement investments
  - Mutual funds - pool money to invest in securities
2. Explain which group is the largest:
  - Banks are the largest group of financial institutions in the financial system.
3. Provide reasons why banks are the largest:
  - High demand for banking services like deposits, payments, transactions from individuals and businesses
  - Banks benefit from consumer stickiness/habit in choosing where to bank
  - Deposits represent a stable, low cost way to fund lending activities
  - Government oversight, insurance, and regulations instill confidence in banks
  - Central bank liquidity backstop reassures depositors

## **D. TIPS & TRICKS**

### **1. Writing Tips:**

- Carefully read each question and ensure you fully understand what is being asked before beginning your response.
- Outline your answers before writing to organize your thoughts.
- Use clear, concise sentences. Avoid overly complex language.
- Define key terms and acronyms. Don't assume the reader knows the shorthand.
- Use examples and scenarios to illustrate your points. Ground your answers in real-world relevance.
- Proofread your responses to fix any typos, grammar issues, or awkward phrasing.

### **2. Analysis Tips:**

- Apply financial theories and models taught in the course, like expectations theory or supply/demand. Reference them specifically.
- Use visuals like graphs, charts, and tables to represent data, models, and relationships.
- Perform calculations neatly and double check your work. Explain step-by-step.
- Interpret financial metrics, trends, and results. Move beyond just describing observations.
- Consider alternate perspectives and acknowledge limitations or assumptions.

### **3. Time Management Tips:**

- Don't spend too long on one question. Be aware of pacing.
- Outline and draft responses for all questions first before finalizing.
- Save 5-10 minutes at the end to review and polish your answers.
- If stuck on a question, move on and come back if there is time.