

VERSION 1

I. Choose and describe THREE of the following SIX topics by giving brief definitions, examples, tables, charts, formulas, and/or explanations (60% of the total grade, 20% each topic)

1. Goals of the firm
2. Financial environment: financial markets, flow of funds, allocation of funds
3. Time value of money, amortizing a loan
4. Preferred and common stock valuation
5. Using probability distributions to measure risk
6. Diversification, portfolios

II. Find (show your work - formulas, calculations, 40% of the total grade)

1. Present value of \$8,000, at 9%, in 10 years (simple interest)
2. Future value of \$5,000, at 8%, in 5 years (compound interest)
3. Future value of ordinary annuity of \$200, at 6% in 7 years
4. Perpetuity \$200, at 5%
5. Annual amortization of a \$4,000, 5%, 4 year loan
6. Value of a nonzero-coupon bond with \$100 par, 7% coupon, 20 years to maturity, at a 11% discount
7. Value of a preferred stock with \$300 par, 7% dividend, 10% discount
8. Value of a common zero-growth stock with \$80 par, 8% dividend, at a 10% discount
9. Yield (rate of return) of a common stock with \$70 par, \$10 expected dividend, 10% - expected growth rate, traded @ \$100
10. Determine and comment the rate of return required by investors with beta 1.5, risk-free rate $R_f=8\%$, market expected rate of return $R_m=12\%$

VERSION 2

I. Choose and describe THREE of the following SIX topics by giving brief definitions, examples, tables, charts, formulas, and/or explanations (60% of the total grade, 20% each topic)

1. Business environment, basic forms of business organization
2. Time value of money, compound interest
3. Distinctions Among Valuation Concepts
4. Rates of Return (or Yields)
5. Attitudes Toward Risk
6. The Capital Asset Pricing Model (CAPM)

II. Find (show your work - formulas, calculations, 40% of the total grade)

1. Future value of \$3,000, at 6%, in 7 years (simple interest)
2. Present value of \$4,000, at 7%, in 6 years (compound interest)
3. Present value of ordinary annuity of \$300, at 5% in 5 years
4. Perpetuity \$300, at 9%
5. Annual amortization of a \$5,000, 6%, 5 year loan
6. Value of a zero-coupon bond with \$200 par, 15 years to maturity, at a 15% discount
7. Value of a preferred stock with \$200 par, 4% dividend, 12% discount
8. Value of a common constant-growth stock with \$150 par, 15% dividend, 5% dividend growth rate, at a 12% discount
9. Yield (rate of return) of a common stock with \$150 par, \$9 expected dividend, 5% - expected growth rate, traded @ \$150
10. Determine and comment the rate of return required by investors with beta .9, risk-free rate $R_f=5\%$, market expected rate of return $R_m=10\%$

VERSION 3

I. Choose and describe THREE of the following SIX topics by giving brief definitions, examples, tables, charts, formulas, and/or explanations (60% of the total grade, 20% each topic)

1. Typical organization of the financial management function of the firm
2. Financial environment: interest rates, risk-expected return
3. Time value of money, simple interest
4. Bond Valuation
5. Defining Risk and Return
6. Risk and Return in a Portfolio Context

II. Find (show your work - formulas, calculations, 40% of the total grade)

1. Future value of \$10,000, at 3%, in 10 years (simple interest)
2. Present value of \$7,000, at 7%, in 7 years (compound interest)
3. Future value of ordinary annuity of \$300, at 3% in 12 years
4. Perpetuity \$400, at 3%
5. Annual amortization of a \$5,000, 4%, 5 year loan
6. Value of a zero-coupon bond with \$300 par, 10 years to maturity, at a 9% discount
7. Value of a preferred stock with \$200 par, 6% dividend, 11% discount
8. Value of a common zero-growth stock with \$125 par, 7% dividend, at a 12% discount
9. Yield (rate of return) of a common stock with \$100 par, \$6 expected dividend, 11% - expected growth rate, traded @ \$50
10. Determine and comment the rate of return required by investors with beta 1.1, risk-free rate $R_f=6\%$, market expected rate of return $R_m=11\%$

ANSWERS

Version 1

Version 2

Version 3

1. Present value of \$8,000, at 9%, in 10 years (simple interest)	\$4,211	1. Future value of \$3,000, at 6%, in 7 years (simple interest)	\$4,260	1. Future value of \$10,000, at 3%, in 10 years (simple interest)	\$13,000
2. Future value of \$5,000, at 8%, in 5 years (compound interest)	\$7,347	2. Present value of \$4,000, at 7%, in 6 years (compound interest)	\$2,665	2. Present value of \$7,000, at 7%, in 7 years (compound interest)	\$4,359
3. Future value of ordinary annuity of \$200, at 6% in 7 years	\$1,679	3. Present value of ordinary annuity of \$300, at 5% in 5 years	\$1,299	3. Future value of ordinary annuity of \$300, at 3% in 12 years	\$4,258
4. Perpetuity \$200, at 5%	\$4,000	4. Perpetuity \$300, at 9%	\$3,333	4. Perpetuity \$400, at 3%	\$13,333
5. Annual amortization of a \$4,000, 5%, 4 year loan	\$1,128	5. Annual amortization of a \$5,000, 6%, 5 year loan	\$1,187	5. Annual amortization of a \$5,000, 4%, 5 year loan	\$1,123
6. Value of a nonzero-coupon bond with \$100 par, 7% coupon, 20 years to maturity, at a 11% discount	\$142	6. Value of a zero-coupon bond with \$200 par, 15 years to maturity, at a 15% discount	\$25	6. Value of a zero-coupon bond with \$300 par, 10 years to maturity, at a 9% discount	\$127
7. Value of a preferred stock with \$300 par, 7% dividend, 10% discount	\$429	7. Value of a preferred stock with \$200 par, 4% dividend, 12% discount	\$600	7. Value of a preferred stock with \$200 par, 6% dividend, 11% discount	\$367
8. Value of a common zero-growth stock with \$80 par, 8% dividend, at a 10% discount	\$100	8. Value of a common constant-growth stock with \$150 par, 15% dividend, 5% dividend growth rate, at a 12% discount	\$180	8. Value of a common zero-growth stock with \$125 par, 7% dividend, at a 12% discount	\$214
9. Yield (rate of return) of a common stock with \$70 par, \$10 expected dividend, 10% - expected growth rate, traded @ \$100	17%	9. Yield (rate of return) of a common stock with \$150 par, \$9 expected dividend, 5% - expected growth rate, traded @ \$150	11%	9. Yield (rate of return) of a common stock with \$100 par, \$6 expected dividend, 11% - expected growth rate, traded @ \$50	23%
10. Determine and comment the rate of return required by investors with beta 1.5, risk-free rate $R_f=8%$, market expected rate of return $R_m=12%$	14%	10. Determine and comment the rate of return required by investors with beta .9, risk-free rate $R_f=5%$, market expected rate of return $R_m=10%$	9.5%	10. Determine and comment the rate of return required by investors with beta 1.1, risk-free rate $R_f=6%$, market expected rate of return $R_m=11%$	11.5%