CFA
LEVEL I
(2027)

Question Bank

February, May, August & November
Exam Prep

- Over 1,500 Exam like MCQs
- A separate question-bank for each reading
- Learning Outcomes (L.O.) based
- Answers Explained in detail

Quantitative Methods

Volume 1

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Quantitative Methods

VOLUME 1

Question & Answers

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Quantitative Methods

LM1 Returns of Financial Assets and Instruments

Questions

Question 1

The minimum rate of return that an investor must receive in order to invest in a project is *most likely* known as the:

A) required rate of return.

B) real risk-free interest rate.

C) inflation rate.

Question 2

An investor observes the following annual returns on a stock over a seven-year period:

Year	Return
1	12%
2	−8%
3	15%
4	5%
5	−10%
6	18%
7	7%

The geometric mean annual return of the stock over the seven-year period is closest to:

A) 5.1%.

B) 5.6%.

C) 6.4%.

Question 3

Joe Egan has an investment account in which his portfolio manager controls the cash flows into and out of the portfolio. To evaluate the performance of the investments, Egan should *most likely* use:

A) Money-weighted return.

B) Time-weighted return.

C) Both A and B.

Question 4

The following information is given about an interest rate:

- Nominal rate: 20%
- Real risk-free rate: 5%
- Inflation premium: 4%

If the risk premium incorporates default risk, liquidity risk, and any maturity premium, the risk premium is closest to:

A) 20%.

B) 15%.

C) 11%.

Question 5

A liquidity premium can be best described as compensation to investors for:

A) inability to sell a security at its fair market value.

B) locking funds for longer durations.

C) a risk that an investment's value may change over time.

Question 6

An investor purchases 100 shares of a company. The table below outlines the history of his investment:

Time	Activity	Price per Share	Dividend per Share
Start of Year 1	Buy 100 shares	$10	
End of Year 1	Buy 10 shares	$11	$1
End of Year 2		$13	$1.50
End of Year 3	Sell 110 shares	$12	

Assuming that the investor does not reinvest his dividends, which are tax-free, the time-weighted rate of return on the investment is closest to:

A) 12.2%.

B) 13.5%.

C) 14.8%.

Question 7

You are estimating the required rate of return for a particular investment. Which of the following premiums are you *least likely* to consider?

A) Inflation premium.

B) Maturity premium.

C) Nominal premium.

Question 8

Fred David invested in the stock of a hypothetical company called Stars Ltd. He purchased three shares worth USD100 each at the beginning of the first year. He invested in another share worth USD115 before the beginning of the second year. He sold the four shares at the end of the second year for a price of USD120 per share. At the end of each period, the stock paid a dividend of USD2 per share. Which of the following is *most likely* to be the money-weighted rate of return?

A) 8.76%.

B) 9.62%.

C) 10.66%.

Question 9

Which of the following is *least likely* to be an accurate interpretation of interest rates?

A) The rate needed to calculate present value.

B) Opportunity cost.

C) The maximum rate of return an investor must receive to accept an investment.

Question 10

Ahmed invested in a fund which offered the following returns over the last three years:

Year	Assets under management at start of year	Net Return (%)
1	15 million	15
2	20 million	−5
3	5 million	10

The money-weighted annual return is closest to:

A) 4.5%.

B) 5.0%.

C) 12.1%.

Question 11

You have been making the following deposits on the last day of every month.

Month	Amount
January	USD1,500
February	USD2,000
March	USD2,000
April	USD2,500
May	USD3,000
June	USD1,000

If the interest rate is 6 percent compounded monthly, how much money will you have on the 1st of July?

A) USD12,000.

B) USD12,148.

C) USD13,903.

Question 12

Given below is information about a security whose interest rate is 15%:

- The real risk-free rate of return is 3.5%
- The default risk premium is 3%
- The maturity risk premium is 4%
- The liquidity risk premium is 2%

An investor wants to determine the inflation premium in the security's return. The inflation premium is closest to:

A) 2.5%.

B) 4.0%.

C) 9.0%.

Question 13

An investor's transactions in a mutual fund and the fund's return over a three-year period are given below:

	Year 1	Year 2	Year 3
New investment at the beginning of the year	$2,000	$2,200	$3,000
Investment return for the year	−10%	25%	40%
Withdrawal by investor at the end of the year	$0	$1,000	$0

Based on the data, the money-weighted return for the investor is closest to:

A) 51.8%.

B) 24.7%.

C) 74.9%.

Question 14

An investor has achieved a return of 4% over a 10-week period. The investor's annualized return is closest to:

A) 22.62%.

B) 14.19%.

C) 35.81%.

Question 15

Mariah Hill buys one share of a stock for 50 dollars on January 1, 2015. She buys an additional share on January 1, 2016, at 60 dollars. The stock paid a dividend of 3 dollars per share at the end of each year. On January 1, 2017, she receives 150 dollars for selling the two shares. Which of the following options *most likely* represents the time-weighted and money-weighted returns?

	Time-weighted return	Money-weighted return
A.	28.60%	27.98%
B.	27.98%	28.60%
C.	26.80%	29.78%

A) Option A.

B) Option B.

C) Option C.

Question 16

The price of a stock at t = 0 is USD205.25 and at t = 1 is USD193.15. The continuously compounded rate of return, $r_{0,1}$, for the stock from t = 0 to t = 1 is closest to:

A) −6.08 percent.

B) −5.90 percent.

C) 6.26 percent.

Question 17

An investor purchased 100 shares of a stock for USD42.50 per share at the beginning of the year. At the end of the year, the investor sells the shares for USD46.80 per share after receiving a total dividend payment of USD150. The dividend yield and price return are closest to:

A) 3.53% and 10.12%, respectively.

B) 3.21% and 9.19%, respectively.

C) 3.53% and 13.65%, respectively.

Question 18

An investment manager's gross return is the return earned by the manager:

A) after accounting for taxes.

B) prior to deduction of trading expenses.

C) prior to deduction of management fees and taxes.

Question 19

Which of the following statements is *least likely* to be true regarding the after-tax real return?

A) It is the most relevant measure of an investor's benchmark return.

B) Asset managers generally do not calculate it because it is difficult to estimate a general tax component applicable to all investors.

C) It is the after-tax real return that the investor receives as compensation for expediting consumption and averting risk by paying taxes on investment returns.

Question 20

At the beginning of the year, an investor holds EUR15,000 in a hedge fund. The investor borrowed 30 percent of the purchase price at an annual interest rate of 5 percent and expects to pay a 30 percent tax on the return she earns from her investment. At the end of the year, the fund reported the information in the table below:

Hedge Fund Performance	
Gross return	9.5%
Trading expenses	1.25%
Managerial and administrative expenses	1.43%

The investor's after-tax return on the hedge fund investment is closest to:

A) 9.39 percent.

B) 6.57 percent.

C) 5.32 percent.

Quantitative Methods

LM1 Returns of Financial Assets and Instruments

Answers