Portfolio Management FIN103 – V (Portfolio Management)

QUESTION 1: I) The efficient frontier gives the points of maximum expected returns for a given amount of risk.
II) The efficient frontier gives the points of minimum risk for a given amount of expected return.
I&II are: A) TT B) TF C) FT D) FF

QUESTION 2: I) If an investor is invested in a portfolio that lies within the efficient frontier, she can change her investments to have both higher expected returns and lower risk.
II) If two assets are positively correlated, combining them into a portfolio cannot result in the portfolio standard deviation being less than the standard deviations of both assets.
I&II are: A) TT B) TF C) FT D) FF

QUESTION 3: Consider two assets, both with expected returns and standard deviations greater than zero. Suppose shorting assets is allowed, then a portfolio of these two may have:
I) negative risk (as measured by standard deviation).
II) negative expected returns.
I&II are: A) TT B) TF C) FT D) FF

QUESTION 4: I) The SML is a plot of expected returns against the total risk (both systematic and unsystematic) of the asset.
II) QUESTION : I) The CML is a plot of expected returns against systematic risk (as measured by beta) of the asset.
I&II are: A) TT B) TF C) FT D) FF

QUESTION 5: I) Consider a portfolio that has positive amounts of the riskless asset and a risky asset that has a positive risk premium, that is the expected return of the asset is higher than risk-free rate. Now suppose the investments are changed to reduce the amount invested in the riskless asset and increase the amount in the risky asset. This corresponds to a move to the right and up along the SML.
II) If the efficient frontier has no risk free asset we would expect the portfolio chosen by a more risk averse investor to be to the right (greater risk) and up (greater standard deviation) compared to the portfolio chosen by a less risk averse investor.
I&II are: A) TT B) TF C) FT D) FF

QUESTION 6: I) The SML can be extended to the left of the Y-axis (region of negative beta risk).
II) The CML can be extended to the left of the Y-axis (region of negative standard deviation risk).
I&II are: A) TT B) TF C) FT D) FF

QUESTION 7: I) A firm enters a new market resulting in an increase in its business risk leading to an increase in its beta. This would cause the firm to move up along the SML.
II) Suppose Japanese investors are more risk-averse compared to US investors. Also assume that investors can purchase assets only from their own countries. Then we would expect the SML in Japan to be steeper (greater slope) compared to the US.
I&II are: A) TT B) TF C) FT D) FF

QUESTION 8:A portfolio has 3 stocks with weights 0.4, 0.25, and 0.35. Their betas are 1, 0, and -1 respectively. The beta of the portfolio is:
A) 0
B) 0.05
C) 0.15
D) 0.25

QUESTION 9: I) According to CAPM, in the absence of a riskless asset the expected returns and standard deviations of all assets must lie on the upper half of the mean-standard deviation frontier (hyperbola).
II) According to CAPM, in the absence of a riskless asset the expected returns and standard deviations of all investor portfolios must lie on the upper half of the mean-standard deviation frontier (hyperbola).
I&II are: A) TT B) TF C) FT D) FF

QUESTION 10: I) According to CAPM, in the presence of a riskless asset, all investors will hold combinations of the riskless asset and the market portfolio (of risky assets).
II) Suppose CAPM is true, there is a riskless asset, and no risky two assets have identical returns and risks. Then if we find that one investor in the economy holds 1 unit of asset A, and 2 units of asset B, then all remaining investors in the economy must also hold asset A and asset B in the ratio 1:2.
I&II are: A) TT B) TF C) FT D) FF

QUESTION 11: I) According to CAPM, it is possible for an investor to invest less than 0% (negative amount) of her wealth in the tangency portfolio.
II) According to CAPM, it is possible for an investor to invest more than 100% of her wealth in the tangency portfolio.
I&II are: A) TT B) TF C) FT D) FF

QUESTION 12: I) According to CAPM, it is possible for an investor to find an investment that has higher expected return and lower risk compared to the tangency portfolio.
II) According to CAPM, if an investor has 30% of wealth invested in the tangency portfolio and 70% in the riskless asset, then his expected return is 0.3RF + 0.7RM where RF is the riskless rate and RM the expected return to the market portfolio.
I&II are: A) TT B) TF C) FT D) FF

QUESTION 13: I) If parallel shift of the SML would occur if the riskless rate increased while the risk-premium for beta (risk) remained unchanged.
II) A parallel shift in the SML would not change the expected return to the market portfolio as the market risk-premium would remain unchanged.
I&II are: A) TT B) TF C) FT D) FF

QUESTION 14: I) If CAPM is true, both the tangency portfolio and the riskless asset lie on the CML.
II) If CAPM is true, in the presence of a riskless asset the Efficient Frontier is a straight line.
I&II are: A) TT B) TF C) FT D) FF

QUESTION 15: I) An "overvalued" asset will lie under the SML.
II) An "undervalued" asset will have an expected return that is less than that implied by riskiness.
I&II are: A) TT B) TF C) FT D) FF

QUESTION 16: I) If we have different rates for lending and borrowing, all investors will continue to hold the market portfolio of risky assets.
II) If we have different rates for lending and borrowing, there is no longer a linear relation between risk (as measured by beta) and expected return.
I&II are: A) TT B) TF C) FT D) FF

QUESTION 17: I) In the Zero Beta CAPM, the risk premium for beta (risk) equals the expected return to the market minus the expected return to the portfolio with a zero covariance with the market.
II) In the Zero Beta CAPM, we have a linear relation between beta (risk) and expected return for assets.
I&II are: A) TT B) TF C) FT D) FF

QUESTION 18: I) If the beta of an asset is constant through time, then it can be estimated as the slope of the Characteristic Line.
II) The CAPM is a three period model.
I&II are: A) TT B) TF C) FT D) FF

QUESTION 19: I) Empirical tests unambiguously have established the validity of CAPM.
II) In testing CAPM, it has been found that betas of portfolios are less stable than betas of individual stocks.
I&II are: A) TT B) TF C) FT D) FF

QUESTION 20: I) A major obstacle to testing the CAPM is that the realized returns to the market portfolio of risky assets is unobservable.

II) CAPM implies that the only reason for differences in expected returns should be systematic risk beyond which other characteristics like firm size or book to market should not matter.
I&II are: A) TT B) TF C) FT D) FF

QUESTION 21: I) Research has found that stocks with positive skewness are priced lower.
II) Fama and French found that beta lost explanatory power for returns in the cross-section of stocks after size and book to market were included as explanatory variables.
I&II are: A) TT B) TF C) FT D) FF

1) A
2) B
3) C
4) D
5) B
6) B Answer: Negative beta is possible, but negative standard deviation is impossible.
7) A
8) B
9) C
10) A
11) A
12) C
13) B
14) A
15) B
16) C
17) A
18) B
19) D
20) A
21) C