Unit 7 - Week 4: Mean-Variance Portfolio Theory- II

Assignment 4

The due date for submitting this assignment has passed.
As per our records you have not submitted this assignment.

Due on 2020-10-14, 23:59 IST.

1) Consider a portfolio P of a risky asset a_1, with expected return, $E(r_1) = 1.5r_f$ and a risk-free asset with return, $r_f = 10\%$.
If the weights assigned to the risky asset and the risk-free asset are 0.6 and 0.4, respectively,
then the expected return (in percentage) of the portfolio P equals :

Hint

No, the answer is incorrect.
Score: 0
Accepted Answers:
(Type: Range) 12,14

1 point

2) Which of the following is true in case of the Capital Market Line (CML), with $E(r_P) = \mu_P$ and $E(r_m) = \mu_m$: 1 point

- $\mu_P = r_f + \left(\frac{\mu_m - r_f}{\sigma_m}\right)\sigma_P$
- $\mu_P > r_f + \left(\frac{\mu_m - r_f}{\sigma_m}\right)\sigma_P$
- $\frac{\mu_P - r_f}{\sigma_P} = \frac{\mu_m - r_f}{\sigma_m}$
- $\frac{\mu_P - r_f}{\sigma_P} > \frac{\mu_m - r_f}{\sigma_m}$

No, the answer is incorrect.
Score: 0
Accepted Answers:
$\mu_P = r_f + \left(\frac{\mu_m - r_f}{\sigma_m}\right)\sigma_P$
$\frac{\mu_P - r_f}{\sigma_P} = \frac{\mu_m - r_f}{\sigma_m}$

3) A portfolio has the risk (as given by standard deviation of returns) of 10%, with the expected return and risk (as given by standard deviation of returns) of the market portfolio being 5% and 8%, respectively.
If the risk-free rate is 4%, then the expected return (in percentage) of the portfolio equals :

Hint

No, the answer is incorrect.
Score: 0
Accepted Answers:
(Type: Range) 5.2,5.3

1 point

4) If a security (with return r) is under-priced, then which of the following holds? 1 point

- $E(r) < r_f + \beta\,[E(r_m) - r_f]$
- $E(r) = r_f + \beta\,[E(r_m) - r_f]$
- $E(r) > r_f + \beta\,[E(r_m) - r_f]$

No, the answer is incorrect.
Score: 0
Accepted Answers:
$E(r) > r_f + \beta\,[E(r_m) - r_f]$

5) Consider the following values: $r_f = 5\%$, $E(r_m) = 8\%$ and $\beta = 0.5$. 1 point
Then the value of $E(r)$ (in percentage) for the asset to be correctly priced, equals :

- 5.6
- 5.8
- 6.5
- 6.8

No, the answer is incorrect.
Score: 0
Accepted Answers:
6.5

6)
Consider a one-period asset pricing model where the values of $S(1)$ can be $S(1) = 110$ or $S(1) = 90$ (at time $t = 1$), each with probability $\frac{1}{2}$.
Further, let $r_f = 5\%$, $\beta = 0.2$, and $E(r_m) = 9\%$. Then, in the CAPM framework, $S(0)$ equals :

Hint

No, the answer is incorrect.
Score: 0
Accepted Answers:
(Type: Range) 94,95

1 point

7) In the CAPM framework, the value of $S_P - S_m$ equals : 1 point

- -1
- 0
- 1
- $\frac{1}{2}$

No, the answer is incorrect.
Score: 0
Accepted Answers:
0

8) Consider two risky assets a_1 and a_2, with the respective expected returns being $\mu_1 = 6\%$ and $\mu_2 = 8\%$, and the respective betas being $\beta_1 = 0.12$ and $\beta_2 = 0.18$. Let the risk-free rate be 4%. If T_1 and T_2 are the Treynor ratios of a_1 and a_2, respectively,
then the value of $|T_1 - T_2|$ equals :

Hint

No, the answer is incorrect.
Score: 0
Accepted Answers:
(Type: Range) 0.05,0.06

1 point