Chapter 7 - Practice Questions

1. An investor invests 30 percent of his wealth in a risky asset with an expected rate of return of 15 percent and a variance of 400 and 70 percent in a T-bill that pays 6 percent. His portfolio's expected return and standard deviation are __________ and __________, respectively.
   A) 11.4%; 12%
   B) 8.7%; 6%
   C) 29.5%; 12%
   D) 8.7%; 12%
   E) none of the above

2. The risk-free asset has to be
   A) default-free.
   B) issued by the government.
   C) free of inflation
   D) a Treasury bond.
   E) both A and C.

Use the following to answer questions 3-6:

You invest $100 in a risky asset with an expected rate of return of 12% and a standard deviation of 15% and a T-bill with a rate of return of 5%.

3. What percentages of your money must be invested in the risky asset and the risk-free asset, respectively, to form a portfolio with an expected return of 9%?
   A) 85% and 15%
   B) 75% and 25%
   C) 67% and 33%
   D) 57% and 43%
   E) cannot be determined

4. What percentages of your money must be invested in the risk-free asset and the risky asset, respectively, to form a portfolio with a standard deviation of 6%?
   A) 30% and 70%
   B) 50% and 50%
   C) 60% and 40%
   D) 40% and 60%
   E) cannot be determined

5. A portfolio that has an expected outcome of $115 is formed by
   A) investing $100 in the risky asset.
   B) investing $80 in the risky asset and $20 in the risk-free asset.
   C) borrowing $43 at the risk-free rate and investing the total amount ($143) in the risky asset.
   D) investing $43 in the risky asset and $57 in the riskless asset.
   E) Such a portfolio cannot be formed.

6. The slope of the Capital Allocation Line formed with the risky asset and the risk-free asset is equal to
   A) 0.4667.
   B) 0.8000.
   C) 2.14.
   D) 0.41667.
   E) Cannot be determined.

7. An investor invests 40 percent of his wealth in a risky asset with an expected rate of return of 18 percent and a variance of 1000 and 60 percent in a T-bill that pays 4 percent. His portfolio's expected return and standard deviation are __________ and __________, respectively.
   A) 11.4%; 11.2%
   B) 8.7%; 6.3%
   C) 9.6%; 12.6%
   D) 8.7%; 14.4%
   E) none of the above

8. An investor invests 70 percent of his wealth in a risky asset with an expected rate of return of 11 percent and a variance of 1200 and 30 percent in a T-bill that pays 3 percent. His portfolio's expected return and standard deviation are __________ and __________, respectively.
   A) 8.6%; 24.2%
   B) 8.7%; 26.7%
   C) 29.5%; 12.3%
   D) 8.7%; 18.2%
   E) none of the above

Answer Key

1. B
2. E
3. D
4. C
5. C
6. A
7. C
8. A