Use the following information to complete the problems 1-15.

The current spot price of the stock of Combs Corporation is 87.00.
The current annual effective risk free interest rate is 6.09%.
For forward price for a 6 month forward contract on Combs stock is 89.61.
A 6 month European style call option on Combs stock with a strike price of 90 has a premium of 4.73.
A 6 month European style put option on Combs stock with a strike price of 90 has a premium of 8.10.

1. Create a payoff-profit table for a long forward contract.

2. Create a payoff-profit table for a short forward contract.

3. Create a payoff-profit table for Combs stock. Assume that you buy the stock now and your position in the stock was closed out after 6 months.

4. Create a payoff-profit table for the situation where you short Combs stock. Assume that you sell the stock now and your position in the stock was closed out after 6 months.

5. Create a payoff-profit table for the purchase of a zero coupon bond maturing for 10,000 in 6 months.

6. Create a payoff-profit table assuming that you borrow 5000 today and repay it in 6 months.

7. Create a payoff-profit table for a long call option.

8. Create a payoff-profit table if you sell a call option.

9. Create a payoff-profit table for a long put option.

10. Create a payoff-profit table if you sell a put option.

11. Calculate the maximum profit that you could have on the short forward.

12. Calculate the maximum loss that you could have on the long call.

13. Determine the spot price of Combs stock in 6 months such that the profit will be zero on a put option.

14. Calculate the maximum profit on a short put contract.
15. Calculate the maximum loss on a short put contract.

16. Determine the spot price of Combs stock in 6 months such that the profit will be zero on a call option.

17. Define the three styles of options.

Mark the following True or False.

18. The payoff for a long forward is equal to the profit on a long stock.

19. An American option can be exercised at specified times prior to the expiration date.

20. The profit on the purchase of a zero coupon bond will always be more than the cost of a forward contract.

21. A put option with a strike price of 60 is out of the money if the spot price of the underlying asset is 60.
Answers:

1. No Answer Given
2. No Answer Given
3. No Answer Given
4. No Answer Given
5. No Answer Given
6. No Answer Given
7. No Answer Given
8. No Answer Given
9. No Answer Given
10. No Answer Given
11. 89.61
12. 4.87
13. 81.66
14. 8.34
15. 81.66
16. 94.87
17. No Answer Given
18. No Answer Given
19. No Answer Given
20. No Answer Given
21. No Answer Given