HEC Paris

Financial Markets

LAST NAME _____

FIRST NAME _____

1. Company CashCow Inc. pays a quarterly dividend of $\in 5$ per share. The next dividend will paid in 3 months time. CashCow stock trades at $\in 150$. Interest rates are 5% per year at all maturities. What is the no-arbitrage price of a forward contract on stock CashCow with a maturity of 4 months?

2. Traders have no inventory of oil, which cannot be short-sold. The spot price of oil is 40/barrel. Interest rates are 5% per year at all maturities. There can be an arbitrage opportunity if the futures price of oil for delivery in 1 year is

3. An American call option can be exercised

will trade at $\in 42$ in one week?

4. Consider a European put option on stock X with strike (exercise) price ≤ 40 and expiry in one week. What is the payoff of a long position in the put at expiry if stock X trades at ≤ 39 today and

\Box only if it is out-of-the-money	
\Box any time before maturity	
\Box only if strike (exercise) price is above the spec	ot price
\Box at the maturity date only	

 \square \$37/barrel

□ \$39/barrel

 \square \$41/barrel

 \square \$43/barrel

□ minus €3	□ €1	
\square minus $\in 2$	$\Box \in 2$	
□ minus €1	$\Box \in 3$	
□ zero		

5. Which of the following is the payoff diagram of a short position in a call option?

