Exam Security Pricing and Portfolio Selection

Question 1 (Open; 8 points)
You were given some yield to maturity values for a zero coupon bond and a coupon bond and also the forward rates

1. You had to give the current yield, based on the yield to maturities which were given. You could do this because your bond was sold at par
2. Calculate the YTM of the last maturity
3. Calculate the zero coupon bond price for a given maturity. Is this the clean or dirty price?
4. What is the definition of a forward rate? What link does it have with the future rate?
5. If your rate increases, what influence will this have on the bond price? What will you use to determine this change in price?

Question 2 (Open; 5 points)

1. Explain (both intuitively and graphically) the modern portfolio theory.
2. Your client proposes to save a larger share in equity. When could this be the right thing to do?

Question 3 (True/false questions; 7 points)

1. Question on yield to call
2. Model risk and limits to arbitrage
3. Dedication strategy and passive bond management
4. Shortselling
5. Index models; alpha and beta
6. Efficient Market Hypothesis and negative alpha
7. Binomial Pricing
8. Difference in sharpe ratio with long and short horizon
9. Convenience yield
10. Value of option and the influence of time to maturity