SOLUTIONS

A) MULTIPLE CHOICE QUESTIONS (1 point per question, no penalties, at least 5 correct or the exam is failed)

1 Which of the following is NOT an example of moral hazard?
(c) a bank's clerk advises clients to purchase investments held by the bank and expected to underperform

2 If the yield curve is strongly upward sloping…
(b) the economy is experiencing substantial growth

3 Which of the following is an accurate way to describe all variants interpretations of efficient markets?
(a) it is impossible to predict trends and paths for assets' prices

4 The largest segment in money markets, in terms of volumes, is represented by…
(a) transactions involving collateral

5 Other things being equal, a callable bond compared to a non-callable bond…
(c) has a higher yield to maturity

6 Which of the following is the most frequent objective of central banks' monetary policy?
(d) Price stability

7 If market interest rates rise and you invested in bonds…
(c) you lost money if you were to sell and you held fixed coupon bonds

8 The largest share of insurers' investments is typically held in…
(a) bonds

9 The higher the Treynor ratio of a mutual fund…
(c) the higher the performance for each unit of returns' volatility compared to the reference market

10 Which of the following risks is LESS likely to affect participants to pension funds?
(d) Currency risks: the purchasing power of future annuities can be lowered by a devalued currency

B) OPEN QUESTION (10 points, do not exceed the space below)

Summarise the main factors that influence how a bank determines the interest rate of a loan

A bank will have to combine two measures: a market measure consistent with the charged interest rate (money market for floating, IRS for fixed), and a spread. The spread will combine three considerations:
- operation-wise: duration, eventual down payments and collateral, amortisan plan, eventual subsidies, …
- client-wise: credit score, financial and personal situation, income earning ability, historical relationship, …
- bank-wise: cost efficiency, risk appetite and capital adequacy, legacy of past portfolio, strategy, future expectations, …

C) EXERCISE (10 points, include a short commentary explaining your calculations)

A stock just distributed a 2 €/share dividend. The cost of equity is 10%. The dividend will grow by 20% in the next year, then grow at 5% indefinitely. Price this stock as of today.

1) Find the dividends for the following 2 years:

D1 = D0 x (1+ 20%) = 2,4
D2 = D1 x 1,05 = 2,52

2) Find the price at time 2 when growth becomes constant (DDM):

P2 = D2 / (10%-5%) = 50,4

3) Calculate the PV of future cashflows:

P0 = D1 / 1,1 + (D2+P2) / 1,1^2 = 45,92