*Financial System – MOCK EXAM*

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**5 open questions**

1. Financial intermediaries play a role only in one segment of financial markets, namely the direct finance. True/False/Uncertain. Explain.
2. Primary market typically involves investment banks who underwrite offerings, while both new issues and previously issued securities are traded on secondary market. True/False/Uncertain. Explain.
3. Secondary markets are important as they help firms to get money. True/False/Uncertain. Explain.
4. Holding everything constant, the lower to yield to maturity of a bond the higher its price. True/False/Uncertain. Explain.
5. Nominal interest rates reflect more accurately the cost of borrowings as real interest rates include the expected changes in the price level. True/False/Uncertain. Explain.
6. The duration of a bond reflects its interest rate sensitivity. True/False/Uncertain. Explain.
7. Money market instruments are less risky than bond and equity market instruments but give investors a rate of return that is usually lower than that of equity and higher that of bonds. True/False/Uncertain. Explain.
8. AAA bonds, usually known as junk bonds, offers a high rate of return in exchange of a contained risk. True/False/Uncertain. Explain.
9. By buying bonds, investors become owners of the company. By buying shares, investors become company creditors. True/False/Uncertain. Explain.
10. The Gordon Growth Model assumes that the dividend paid by a stock is growing constantly forever. The price is calculated as the present value of the related annuity discounted using the risk free rate. True/False/Uncertain. Explain
11. By balancing the maturities of assets and liabilities, banks hedge against credit risk, while remain exposed to interest rate risk. True/False/Uncertain. Explain.
12. Government insurance on deposit protect investors in that it discourages risk taking by bankers. True/False/Uncertain. Explain.
13. When the riskiness on an investment increases and the level of the investment decreases, the amount of regulatory capital declines. True/False/Uncertain. Explain.
14. The ECB is in charge of monetary policy and its main objective is to manage short term interest rates.

True/False/Uncertain. Explain.

1. When the central bank buys treasury bonds on the market (money market operations) it creates monetary base. The likely effect is an increase in short term interest rates. True/False/Uncertain. Explain

**1 or 2 short exercises.**

1. Compute the present value of the following bond:
   1. 3 years to maturity;
   2. Annual coupon
   3. Coupon rate 3%
   4. Face value – 100
   5. Interest rate 2.5%
2. Suppose the following two bonds:
   1. Bond A
      1. 3 years to maturity
      2. Duration 2.3
   2. Bond B
      1. 3 years to maturity
      2. Duration 3

Which is the less risky bond?

Which is the zero-coupon bond?

1. Consider the cash flows reported in the table below. Assuming that market interest rates are 12% and that they remain constant over time:
   1. What price would you pay for these cash flows?
   2. What total wealth do you expect after 2.5 years if you sell the rights to the remaining cash flows?

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Year | 0 | 1 | 2 | 3 | 4 |
| Cash flow |  | 160 | 170 | 180 | 230 |

1. Compute the price and the duration of the following bonds supposing that the interest rates are 12% and that they remain constant over time. Briefly comment the differences.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Year | 0 | 1 | 2 | 3 | 4 |
| Bond 1 | P? | 5 | 5 | 5 | 105 |
| Bond 2 | P? | - | - | - | 115 |
| Bond 3 | P? | 35 | 35 | 35 | 35 |