Questions (1 points)

The Internal Rate of Return (IRR) is such a considered interest rate at which:

* the current value of revenue is equal to the current value of the expenditure
* the current value of revenue is twice the current value of the expenditure
* the present value of revenue is twice the current value of the expenditure
* the present value of income is not equal to the current value of the expenditure
* the future value of income is not equal to the current value of the expenditure

Questions (1 points)

The Net Present Value is:

* the difference between the present value of the cash income from the investment and the present value of the capital expenditure in the absolute amount
* the number of years for which the capital expenditure is returned
* the proportion of the present value of monetary income from the capital expenditure investment
* the average return on the project
* the difference between the accounting and the market price of the investment

Questions (1 points)

In some situations, the use of an Internal Rate of Return (IRR) may lead to incorrect conclusions or simply cannot be used, for example:

* if there are non-standard (unconventional) cash flows
* if there are conventional cash flows
* when it is necessary to respect the time value of money
* if these are cash flows with only one change from negative to positive flow
* if the rate of the systematic risk is higher than the size of the operational risk

Questions (1 points)

If the capital expenditure is denoted by the sign (-) and the cash receipt by the sign (+), then the conventional cash flow during 5 years can be represented, for example, in this way:

* (-) (-) (+) (+) (+)
* (-) (+) (+) (+) (-)
* (-) (+) (-) (+) (+)
* (+) (+) (+) (+) (+)
* (+) (-) (-) (-) (+)

Questions (1 points)

An access to the risk consisting in eliminating of its causes is called:

* offensive
* defensive
* diversification
* systematic
* non-systematic

Questions (1 points)

The risk arising from changes in the development of the entire economy, affecting all businesses, and not influenced by diversification, is called:

* systematic
* non-systematic
* offensive
* defensive
* individual

Questions (1 points)

We define the Uncertainty as:

* the inability to predict future results
* the possibility that the results will be different than expected
* the possibility that the results will be worse than expected
* the percentage change in project revenue per one percent change in market yield
* the rate of systematic risk

Questions (1 points)

A risk independent of the company´s activity is called:

* Objective
* Subjective
* Primary
* Secondary
* Financial

Questions (1 points)

The expected change in return on investment (security, assets, etc.) in relation to the unit change in return on the market portfolio is shown by an indicator:

* Beta coefficient
* Alfa coefficient
* Omega coefficient
* IRR coefficient
* WACC

Questions (1 points)

A short-term lease of property, where the lease term is shorter than the economic life of the property, the lessee has no right to repurchase the property, and the lease is subject to termination, is called:

* Operating lease
* Financial lease
* Laverage lease
* Direct lease
* Indirect lease

Questions (1 points)

The Baumol model is related to:

* Cash management
* Inventory management
* Debt management
* Capital structure optimisation
* Assessment of securities

Questions (1 points)

The Gordon model is related to:

* Stock valuation
* Cash management
* Inventory management
* Debt management
* Capital structure optimisation

Questions (1 points)

If interests did not represent a tax-deductible expense and there were no financial crunch costs, then, according to the Miller and Modigliani (MM I) theory, the average cost of the equity would:

* grow
* decrease
* represent a U-shaped curve
* not change
* the MM theory is not relevant in this case

Questions (1 points)

* The ratio of current assets to short-term payables is called:
* Current liquidity
* Net working capital
* Short-term indebtedness
* Short profitability
* Current assets turnover rate

Questions (1 points)

Banking credentials (bank order) to pay a certain amount of money, or to accept a bill of exchange to a designated person, or to a specific account after submitting certain documents (e.g. an extract from the Land Registry) within the maturity date of the order are called:

* Documentary credit
* Documentary collection
* Subrogation
* Oferta
* Forward agreement

**Problem 1 (2 points)**

The company expects the following financial revenue over the next 9 years (always at the end of the year) 25 000 EUR. Calculate the nine-year annuity (annual amount), which is equivalent to these amounts at a 10% interest rate per annum.

**Problem 2 (2 points)**

Calculate the annual yield so that the value of the deposit triple over the 8-year period.

**Problem 3 (2 points)**

The current account balance is CZK 48,523. Calculate how long it will take to reach the balance of CZK 50,000 on this bank account. The interest rate is 1.8% per annum. Interests are credited monthly.

**Problem 4 (2 points)**

Specify the current cash flow value if the regular payment is an annuity of CZK 7,000 per year and a total of 20 payments (i.e. 20 annual payments of CZK 7,000) will be paid. The interest rate for the first 13 years is 7% p.a. and 5% p.a. per year for the remaining 7 years.

**Problem 5 (2 points)**

Compare the following interest rates from the cheapest to the most expensive:

* 7.9% per annum (continuous interest accrual)
* 3.92% semi-annual (half-year interest accrual)
* 2.84% quarterly (monthly interest accrual)
* 0.61% per month (monthly interest accrual)

**Problem 6 (5 points)**

The total material consumption in the Nord-West company is 200,000 pieces. A value of 1 piece is CZK 2,000. Material purchase is financed by the loan with a 10% interest. Order cost is CZK 1,000 per shipment. Administration cost is CZK 1,000 per shipment. The cost of import, takeover is CZK 5,000 per shipment. The operating cost for storage is CZK 100 per piece and per year. **Calculate the minimum cost of supply**.

**Problem 7 (5 points)**

The Miller-Orry Cash Management Model is applied by the company. The minimum cash balance is set at 80,000 dollars. Daily fluctuations in cash flow is, on the average, 20,000 dollars. The interest rate of 12% p.a. The transaction costs of trade in securities are $20

**How will you react if the status of funds of the company falls to 78,250 dollars**?

**Problem 8 (5 points)**

The initial cash balance of the Nord West company was CZK 55,000. The minimum required amount of funds was set at CZK 50,000 (i.e. if the amount of funds falls below this threshold, the company is forced to borrow the money).

1. Sales of goods upon the invoice 200,000
2. Warehouse release of sold goods 175,000
3. Collection of an invoice for sold goods 150,000
4. The cost of reported wages and salaries 185,000
5. Payment of wages (cash) 185,000
6. Sales of goods upon the invoice 125,000
7. Sale of a decommissioned machine (cash) 75,000
8. Net book value of sold machines 200,000
9. Payment of dividends 50,000
10. Fixed asset depreciation 225,000
11. Creation of a reserve for repairs 150,000
12. Purchase of a machine (cash) 300,000

**Calculate the end-of-year loan requirement if the following economic transactions were carried out (in CZK)**

**Problem 9 (5 points)**

Parker Industries is considering implementing the following project

The project development is planned for two years. Investment expenses will always be spent at the end of the year, amounting to:

* Year 1 = CZK 1,000k
* Year 2 = CZK 1,000k

At the end of the second year of development, stocks will grow by CZK 0.2 million, receivables by CZK 0.5 million and liabilities by CZK 0.1 million.

The investment life time is 8 years. Consider linear depreciation.

An annual sales = CZK 2,200k is expected. .

Annual material cost and energy consumption amount to CZK 750k.

Annual wages amount to CZK 100k.

At the end of the life time the equipment will be sold for CZK 0.5 million and the capitalization of NWK

The company’s long-term capital requirements are funded 65% internally and 35% by foreign capital.

The required return on equity is 14%

The interest rate on debt is 6%.

Income tax rates account for 20%.

**Calculate the Net Present Value**

**Problem 10 (5 points)**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Balance sheet |  |  |  |  |  |  |  |
|  | 2015 | 2016 | 2017 |  | 2015 | 2016 | 2017 |
| **Current Assets** | **62 000** | **68 000** | **66 000** | **Total debt** | **85 000** | **88 500** | **94 000** |
| Cash | 5 000 | 6 000 | 4 000 | Short-term Liabilities | 22 000 | 28 000 | 33 000 |
| Accounts Receivable | 25 000 | 24 000 | 20 000 | Long Debt | 63 000 | 60 500 | 61 000 |
| Inventory | 32 000 | 38 000 | 42 000 |  |  |  |  |
|
| **Assets (non-current)** | **110 000** | **113 000** | **117 000** | **Total owners' equity** | **87 000** | **92 500** | **89 000** |
| Tools and equipment | 85 000 | 88 500 | 92 000 | Profit | 9 500 | 5 500 | -3 500 |
| Buildings | 25 000 | 25 000 | 25 000 | Retained Earnings | 2 500 | 12 000 | 17 500 |
|  |  |  |  | Capital Stock | 75 000 | 75 000 | 75 000 |
| **Total** | **172 000** | **181 000** | **183 000** | **Total** | **172 000** | **181 000** | **183 000** |
|  |  |  |  |  |  |  |  |
| Income statement |  |  |  |  |  |  |  |
|  | 2015 | 2016 | 2017 |  |  |  |  |
| Revenue | 240 800 | 241 000 | 235 000 |  |  |  |  |
| Cost of Goods Sold | 136 385 | 139 685 | 142 620 |  |  |  |  |
| Wages | 75 000 | 77 000 | 78 000 |  |  |  |  |
| Depreciation | 12 500 | 12 600 | 13 000 |  |  |  |  |
| **EBIT** | **16 915** | **11 715** | **1 380** |  |  |  |  |
| Interest expense | 5 040 | 4 840 | 4 880 |  |  |  |  |
| **EBT** | **11 875** | **6 875** | **-3 500** |  |  |  |  |
| Tax | 2 375 | 1 375 | 0 |  |  |  |  |
| **EAT** | **9 500** | **5 500** | **-3 500** |  |  |  |  |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |

**Calculate and evaluate**

* **ROA - profitability of assets**
* **ROS - profitability of sales**
* **Asset Turnover Rate**
* **Quick Test Ratio**
* **Debt Equity Ratio**