AFC 2018

MULTIPLE CHOICE TEST (individual assignment)

Call 17th Jan. 2019

1. Company A produces and sells wood panels. In the Table below, you can find 2018 data of Company A. Please, calculate the OPERATING PROFIT of Company A in 2018.

COMPANY A - DATA (2018)	
Number of Panels Sold [#]	8,000,000
Of Whom paid by customers in 2019 [#]	800,000
Price [€/panel]	25.00
Trade Receivables (final) [€]	20,000,000
Income generated from the rent of proprietary buildings [€]	10,000,000
Changes in Inventories of Finished Goods and WIP (f-i) [€]	5,000,000
Direct Raw Materials [€/panel]	12.50
Trade Payables (final) [€]	50,000,000
Depreciation & Amortization [€]	25,000,000
Cost of Personnel [€]	30,000,000
Other Operating Expenses [€]	20,000,000
Financial Income [€]	100,000
Financial Interests [€]	900,000

OPERATING PROFIT:

A. 40 mln€
B. 70 mln€
C. 39.2 mln€
D. 65 mln€

Solution

SOLUTION [mln€]	
Revenues	200
+ Other Operating Income	10
Total Revenues	**210**
+ Changes in Inventories of Finished Goods [€]*	5
- Raw Materials used	100
- Employee Benefit Expenses [€]	30
- Depreciation & Amortization [€]	25
- Other Operatng Expenses [€]	20
OPERATING PROFIT	**40**

**As of the given data: quantity produced in 2018 = quantity sold in 2018.*
Changes in inventory is thus due to a change in the unitary value of the stock of finished goods.

2. The Residual Income (RI):

A. Is a ratio indicator and, as ROI, it tends to favour growth
B. Is an absolute indicator and, as ROI, it tends to favour growth
C. Is an absolute indicator: differently from ROI, it tends to favour growth
D. Is an absolute indicator, while ROI is a ratio indicator: they both equally tend to favour growth

3. In 2018 Company Peak bought 60% of Company Snow. The whole value of the item "Equity investments" in Peak's balance sheet is attributable to the purchase of Snow's stake. Starting from the financial statements of both companies calculate the Goodwill in the consolidated financial statement of Peak. The book value of assets and liabilities of Snow is equal to their fair value. Peak follows IFRS 10 and parent company logic to perform calculations.

Balance sheet	**Peak**
Property, plant & equipment	5,000
Equity investments	1,500
Current assets	3,500
Total assets	10,000
Capital	4,500
Reserves	500
Liabilities	5,000
Total liabilities	10,000

Balance sheet	**Snow**
Property, plant & equipment	3,000
Equity investments	
Current assets	2,000
Total assets	5,000
Capital	1,000
Reserves	500
Liabilities	3,500
Total liabilities	5,000

A. Goodwill is equal to 900
B. Goodwill is equal to 600
C. There is no goodwill, as Peak paid the amount corresponding to the 60% of book value of Snow
D. There is not enough information to calculate the goodwill

Solution:

1000 (capital Snow) + 500 (reserves Snow) = 1500

1500 * 60% = 900

Goodwill = 1500 (equity investments Peak) – 900 (value of 60% stake) = 600

4. Consider the following data about company ABC Ltd:

All data are in [k€]	2018 (actual)	2019 (budgeted)
Depreciation and Amortization	100	200
Account Receivables	75	100
Account Payables	100	50
Inventories	25	100
Repayment of Debt	-	1,300
Properties, Plants and Equipment	1,000	2,000
EBIT	2,500	3,000
Financial Expenses	200	200
Taxes	720	840

Which is the budgeted Free Cash Flow to Firm for 2019?

A. 950 k€
B. 1,150 k€
C. 1,010 k€
D. None of the above

Solution

	[k€]
EBIT	3.000
- Financial Expenses	200
EBT	2.800

Corporate Tax Rate = Taxes / EBT = 840/ 2,800 = 30%

*Taxes (EBIT) = 3,000 * 0.3 = 900 k€*

	[K€]
EBIT	3,000
+ Depreciation and Amortization	200
- Delta Net working capital	150
- Delta CapEx	1,200
- Taxes (EBIT)	900
FCFF	**950**

5. As a result of its financial planning, a company estimates negative FCFE but positive FCFF for the next year. Which of the following ideas turns not to increase the FCFE for that specific year?

A. Enter in a leasing contract instead of buying in February a new machine (terms of payment: 2 months) as planned
B. Ask for factoring
C. Ask for a loan and invest the whole sum buying government bonds
D. Ask for a new line of credit

6. Game Inc, a corporation in the gambling industry, needs to raise capital to continue its operations. Game Inc had previously an Equity of 460,000 €, recently they issued and sold 3,000 shares of stock at €80 each. They supported the raise of capital also with bonds, redefining the overall cost of debt of the company, which is now 6%. All their liabilities are illustrated in the snapshot of the Balance Sheet below:

Current Liabilities	
Accounts payable	20,000
Credit line	20,000
Short term loans	30,000
Deferred Taxes	20,000
Payroll liabilities	15,000
Non-Current Liabilities	
Long term business loan	150,000
Bonds payable	100,000
Total Liabilities	**355,000**

It is expected that the launched stock has a higher volatility than the market, which carries a return (rm) of 6%. The estimated beta leverage is equal to 1.3, the risk-free rate of the market is 0.2%. Given the risk profile, Game Inc takes care of not diminishing the Interest coverage ratio, which is now of 3.2. If the cost of equity of Game Inc. is calculated using the CAPM and the corporate tax rate is equal to 30%, what is its weighted average cost of capital?

A. 5,88%
B. 6,68%
C. 6,52%
D. 6,85%

Solution

$$Equity = (3{,}000\ x\ €\ 80) + 460{,}000\ =: €\ 700{,}000$$
$$Financial\ Debt = 20{,}000 + 30{,}000\ + 100{,}000 + 150{,}000\ =: €\ 300{,}000$$
$$Ke = rf + Bl(rm - rf)$$
$$Ke = 0.2\% + 1.3(6\% - 0.2\%) = 7.7\%$$
$$WACC = Ke(\frac{E}{E+D}) + Kd(1 - tc)\left(\frac{D}{E+D}\right)$$
$$WACC = 7.7\% * (0.7) + 6\% * (0.7) * (0.3)$$
$$WACC = 6.68\%$$

7. Which of the statements about Balanced Scorecard is FALSE:

A. The Balanced Scorecard encourages managers to consider a portfolio of both financial and value drivers' measures
B. Balanced Scorecard measures are linked to the organisation's strategic objectives
C. The generic Balanced Scorecard contains four quadrants: Financial; Customer; Internal Business Processes; Learning and Growth
D. The balanced scorecard is drafted with the same periodicity of financial statements

8. You have to estimate the Enterprise value of a social network. Which of the following parameters cannot be considered as reference in your relative valuation?

A. Sales
B. EBIT
C. Net earnings
D. Number of users

9. Which ones of the following responsibility centres are cost centres?

A. The Operations and the Research & Development organizational functions;
B. The Human Resources and the Marketing organizational functions;
C. The Sales and the Procurement organizational functions
D. The Operations and the Logistics organizational functions;

10. Business Unit C of Fly-out Company Ltd. needs to purchase sensors, either from the Business Unit B or from an external supplier. A reliable supplier might provide the required 1,000 units for 75.00 €/unit.
Business Unit B production capacity is up to 10,000 units and the flexibility of their workforce allows them to scale-up or down as needed. The breakdown of its cost structure is as follow:

Direct materials	*€/u 10.00*
Direct labour	*€/u 15.00*
Variable overhead	*€/u 20.00*
Fixed overhead	*€/u 25.00*
Total	***€/u 70.00***

Business Unit B is currently selling 7,000 units to an external costumer.

If Fly-out handles a transfer price policy of marginal cost and a mark-up of 20% would the internal transaction take place?

A. No, it will not. B will only sell at 84 €/unit, while the external provider has a more convenient price
B. Yes, it will. B will sell at 54€/unit, having some advantage in comparison with the external supplier.
C. Yes, it will. B will sell at 30€/unit, having considerable advantage in comparison with the external supplier.
D. None of the above

Solution

$$max = price\ of\ the\ external\ supplier: \frac{75€}{\text{unit}}$$

$$min = price\ of\ the\ marginal\ costs: 10€/u + 15€/u + 25€/u = 45€/u$$

$$TP = 120\%(marginal\ cost) = 120\% * \left(45 \frac{€}{unit}\right) = 54\ €/u$$