Tutorial letter 201/2/2014

Application of financial management techniques

SEMESTER 2

Department of Management Accounting

IMPORTANT INFORMATION:
This tutorial letter contains important information about your module.

Dear Student

Enclosed please find the solution in respect of compulsory assignment 01/2014 for the second semester. It is in your own interest to work through the suggested solution in conjunction with the assignment and your own answer.

Kind regards

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SOLUTION FOR COMPULSORY ASSIGNMENT 01/2014 FOR THE SECOND SEMESTER

QUESTION 1

Calculate the net cash flow from operating activities:

Cash flow from operating activities		2X13 R
Earnings before profit and tax		**345 800**
Adjustment for:		**75 000**
Depreciation		75 000
Operating profit before working capital changes		**420 800**
Working capital changes		**(42 500)**
Increase in trade and other receivables	= 180 000 – 195 000	(15 000)
Increase in inventories	= 590 000 – 630 000	(40 000)
Increase in trade payables	= 197 500 – 185 000	12 500
		378 300
Cash generated from operations		**(87 000)**
Interest paid		(22 000)
Tax paid		(65 000)
Net cash inflow from operating activities		**291 300**

Therefore, Option (2) is correct.

Markers comments:

Other operating income should be included in the calculation. This can include interest received, commission received, etc. In practice it is usually referred to as only other income which makes more sense

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QUESTION 2

Calculate the current ratio

Current ratio $=$ $\dfrac{\text{Current assets}}{\text{Current liabilitie s}}$

$=$ $\dfrac{\text{R847 500}}{\text{R197 500}}$

$=$ 4,29

Therefore, Option (4) is correct.

QUESTION 3

Calculate the Beta coefficient

Beta coefficient $=$ $\dfrac{\text{COVARim}}{\text{SM}^2}$

$=$ $\dfrac{3 \times 0,5 \times 2}{2 \times 2}$

$=$ 0,75

Therefore, Option (1) is correct.

Markers comments:

This means the security will be less volatile than the market.

COVARim $=$ The covariance of market return with stock return

SM^2 $=$ The variance of markets returns

QUESTION 4

Calculate the cost of equity

Cost of equity is calculated by making use of the CAPM formulae:

K_e = Rf + Beta (Rm – Rf)

   = 4% + 0,5(16% – 4%)

   = 4% + 6%

   = 10%

Therefore, Option (2) is correct.

Markers comments:

The yield on government bonds can be used as an indicator of the risk-free rate.

Market premium = Return on the market portfolio (Rm) – Risk free return (Rf)

QUESTION 5

Calculate how much should be financed through new equity and debt

Current value of the company   = Equity + Debt

                 = R 3 500 000 + R6 500 000

                 = R10 000 000

The new investment amounts to R 4 000 000.

Company capitalisation after investment   =   Current value + new investment

                                =   R10 000 000 + R4 000 000

                                =   R 14 000 000

QUESTION 5 (continued)

	Debt		**Equity**	
Existing capitalisation	R6 500 000		R3 500 000	
New capitalisation - finance	**R1 900 000**	③	**R2 100 000**	④
Total capitalisation	**R8 400 000**	①	**R5 600 000**	②

Note:

①	Total debt	=	R14 000 000 x 60%
		=	R8 400 000
②	Total equity	=	R14 000 000 x 40%
		=	R5 600 000
③	New debt	=	R8 400 000 – R6 500 000
		=	R1 900 000
④	New equity	=	R5 600 000 – R3 500 000
		=	R2 100 000

The company should consider financing the new project using equity finance or a mix that moves towards the desired Debt:Equity ratio.

Therefore, Option (1) is correct.

QUESTION 6

Calculate the value of a right per share

N = 4

Theoretical ex-rights price   = $\frac{1}{N+1}$ x ((N x cum rights price) + issue price)

                                 = $\frac{1}{4+1}$ x ((4 x R10,85) + R8,50)

                                 =   R10,38

Value of a right is   =   Theoretical ex-right price – issue price

                                 =   R10,38 – R8,50

                                 =   R1,88 per new share.

Therefore, Option (1) is correct.

QUESTION 7

Lease finance:

	Year 0	**Year 1**	**Year 2**	**Year 3**
Annual payment	(450 000)	(450 000)	(300 000)	(300 000)
Tax allowance	126 000 ①	126 000 ①	84 000 ②	84 000 ②
Net cash flow	(324 000)	(324 000)	(216 000)	(216 000)
PV factor @ 16%	1	0,862	0,743	0,641
Net present value	(324 000)	(279 288)	(160 488)	(138 456)

Total net present value of the lease (R902 232)

QUESTION 7 (continued)

Calculations:

    ① 450 000 x 28% = 126 000

    ② 300 000 x 28% = 84 000

Therefore, Option (1) is correct.

Markers comments:
If the question is silent and therefore does not explicitly state that there is a time lag for the tax paid, you can assume that the tax is paid in the same year.

QUESTION 8

Calculate the present value of the capital portion of the debenture

Calculation of capital portion of the debenture:

Capital portion before premium   =   R5 000

Present Value   =   R5 000 x 110% after 5 years at 14%.

    =   R5 500 x 0,519 (PV factor for 14% after 5 years)

    =   R2 854,50

    ≈   R2 855

Therefore, Option (4) is correct.

Markers comments:
When working out the capital portion you need to take the premium (or discount) on the capital portion into consideration.
Premium on capital means that you will get more therefore you multiply it by 110%. (100% + 10%)
If the question states that you will get a discount on the capital portion of 10% it means that you will receive less and therefore you will multiply the capital portion by 90% (100% - 10%).

QUESTION 9

Calculate WACC:

	Market Value	Weight	Cost		Weighted cost
Ordinary shares	5 100 000	86,15%	14,00%		12,06%
(R25,50 x 200 000)					
Preference shares	370 000	6,25%	11,00%		0,69%
(R18,50 x 20 000)					
Debentures	150 000	2,53%	11,52%	①	0,29%
Long term loan	300 000	5,07%	5,76%	②	0,29%
	5 920 000	**100,00%**			**13,33%**

① 16% x 0,72 = 11,52% (after tax)

② 8% x 0,72 = 5,76% (after tax)

In this question, we include the long term loan as this is part of the company's long term finance structure. Deferred taxation is excluded from the WACC calculation.

Conclusion

The WACC for Solar Ltd is calculated at 13,33%

Therefore, Option (2) is correct.

QUESTION 10

Evaluate the statements

Business risks include risks that are directly associated with the type of business, the operating leverage, state of the physical assets, competition etc.

Financial risk is the risk that relates to the borrowing of long- and short-term debt.

Therefore, Option (3) is correct.

General markers comments:

Remember you will not be provided with any tables in the exams as SAICA recommends that students use the formula and financial calculators to calculate future and present values.

Make sure that you work though chapter 3 in your text book.

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