CMA JUNE-2019 EXAMINATION
MANAGEMENT LEVEL
SUBJECT: F2- FINANCIAL MANAGEMENT

Model Solution

Solution to the question No. 2

(a)

I. Actuarial gains or losses**:**

	FV of plan assets (Tk.000)	**PV of plan liabilities (Tk.000)**
Opening balance	8,200	8,500
Service cost		2,100
Interest cost (6% X opening balances	492	510
Benefits paid	(500)	(500)
Contributions	1,900	
Past service cost		2,000
	10,092	12,610
Actuarial gain on plan assets	**108**	
Actuarial gain on plan liabilities		**110**
Closing balance	10,200	12,500

The net actuarial gain in OCI is Tk.218,000 for the year.

II. Statement of financial position:

	Tk.000
Present value of pension plan liabilities at 31 March 2018	12,500
Fair value of pension plan assets at 31 March 2018	(10,200)
Net pension liability	2,300

(b)

IFRS 8 *Operating Segments* states that an operating segment is separately reportable if it has been identified as a separate operating segment meeting the operating segment definition, and:

(i) Its reported revenue is 10% or more of the combined revenue (external and internal) of all operating segments, *or*
(ii) The absolute amount of its reported profit or loss is 10% or more of the greater of the combined profit of all operating segments that did not report a loss and the combined reported loss of alloperating segments that reported a loss, *or*
(iii) Its assets are 10% or more of the combined assets of all operating segments.

	Revenue as % of total revenue (£238m)	**Profit or loss as % of profit of all segments in profit (£29m)**	**Assets as % of total assets £336m**
Chemicals*	33.6%	48.3%	32.4%
Pharmaceuticals wholesale	28.2%	31.0%	31.0%
Pharmaceuticals	9.2%	6.9%	8.9%

retail			
Cosmetics	6.3%	6.9%	5.4%
Hair Care	5.0%	13.8%	6.3%
Body care	17.6%	20.7%	16.1%

* The chemicals segments are aggregated due to their similar economic characteristics

At 31 December 20X5 four of the six operating segments are reportable operating segments:

Chemicals
All size criteria are met

Pharmaceuticals wholesale
All size criteria are met

Pharmaceuticals retail
The Pharmaceuticals retail segment is not separately reportable as it does not meet the quantitative thresholds. It can, however, still be reported as a separate operating segment if management believes that information about the segment would be useful to users of the financial statements. Alternatively, the group could consider amalgamating it with the Pharmaceuticals wholesale segment, providing the two operating segments have similar economic characteristics and share a **majority** of the 'aggregation' criteria, which, excluding the type of customer may be the case. Otherwise it would be disclosed in an 'All other segments' column.

Cosmetics
The Cosmetics segment does not meet the quantitative thresholds and therefore is not separately reportable. It can also be reported separately if management believes the information would be useful to users. Alternatively the group may be able to amalgamate it with the Body care segment, providing the operating segments have similar economic characteristics and share a majority of the 'aggregation' criteria. Otherwise it would also be disclosed in an 'All other segments' column.

Hair care
The Hair care segment is separately reported due to its profitability being greater than 10% of total segments in profit.

Body care
All size criteria are met.

Note:
IFRS 8.15 states that at least 75% of total external revenue must be reported by operating segments. This condition has been met as the reportable segments account for 82% of total external revenue (158/192)

(c)

(i) Basic EPS= $4,697,000/11,172,414 (W2) = $0.42.

Diluted EPS= $4,886,000 (W3)/14,628,414(W4) = $0.334

Workings:

(W1) Theoretical ex-rights price:

	Number of shares	Price	Total
Pre-rights	5	$1.5	$7.5
Rights	1	$1.2	$1.2
Total	6		$8.70

Theoretical ex-rights price= $8.70/6= $1.45. Rights fraction= 150/145

(W2) Weighted average number of shares in issue for year ending 31 December 2013.

Date	Narrative	Shares	Time	Fraction	Weighted average
1Jan-30 June, 2013	Balance	10,000,000	6/12	150/145 (W1)	5,172,414
1 July-Dec.31, 2013	Rights issue	12,000,000*	6/12		6,000,000
					11,172,414

*10,000,000x6/5=12,000,000 **1m**

(W3) Earnings for diluted EPS

Earnings for basic EPS	$4,697,000
Add. Post tax interest saved (3,000,000x9%)x (1-0.30)	189,000
Earnings for diluted EPS	$4,886,000

(W4) Number of shares for diluted EPS

Always use the largest number of shares per unit of convertible in this calculation.

Weighted average number of shares for basic EPS	11,172,414
Convertible loan 3,200,000/100x108	3,456,000
	14,628,414

(ii) Historical information presented in financial statements, is not on its own particularly useful for making economic decisions. Forecasts and projections for the future can be much more useful for decision making.

The basic earnings per share figure provide limited information about the future to current holders of shares. Where financial instruments have been issued by a company which will potentially dilute the earnings in the future, the diluted EPS figure shows how the current earnings of the company would be diluted, or shared out, amongst the additional equity holders as well as the current equity holders. This gives the current equity holders an idea of the effect that these dilutive financial instruments may have on their shareholding in future.

However, there are limitations to the use of these figures. The most basic limitation is that the diluted EPS is based upon the current earnings figure which may not be relevant in future years.

(d)

Translating the shareholders' funds using the closing rate as at 31 December 20X3 gives €15,000 /8 = £1,875. The non-controlling interest in the statement of financial position will be 40% * £1,875 = £750.

The dividend payable translated at the closing rate is €1,680 / 8 = £210. The amount payable to the non-controlling shareholders is 40% * £210 = £84.

The profit after tax translated at the average rate is €3,080 / 7 = £440. The non-controlling interest in profit is therefore 40% * £440 = £176.

The non-controlling share of the exchange difference is calculated as:

Opening net assets		
€15,000 – €1,400 = €13,600	At opening rate of €5:£1 =£2,720	
	At closing rate of €8:£1 =£1,700	£1,020
Profits of €3,080	At average rate of €7:£1=£440	
	At closing rate of €8:£1 =£385	£55
Loss on retranslation of Camrumite's accounts		£1,075

NCI share of loss £1,075 x 40% =£430

Therefore the non-controlling interest in total comprehensive income is profit of £84 less exchange losses of £430 = £346 (loss)

The non-controlling interest can be summarized as follows.

Balance at 1 January 20X3 (£2,720 x 40%)	£1,088
Non-controlling interest in profit for the year	£176
Non-controlling interest in exchange losses	£ (430)
	£834
Dividend payable to non-controlling interest (£210 x 40%)	(£84)
Balance at 31 December 20X3 750	£750

Solution to the question No. 3

Workings: (all figures in Taka millions)

Working-1: Goodwill

	Acquisition of Y	**Acquisition of Z**
	Taka million	**Taka million**
Consideration transferred for Y (Tk.148 m-Tk.18m)	130	
for Z (75%x (Tk.76m-Tk.6m)		52
NCI at fair value in Y (25% x 80 million shares x Tk.2)	40	
in Z (40% X 60 million shares x TK.1.75)		42
	170	94
Net assets acquired		
Share capital	80	60
Share premium	20	10
Retained earnings	45	20
Contingent liability- at acquisition	(5)	

	140	90
Goodwill at acquisition	30	4
Impairment of 20% for goodwill on acquisition of Y	(6)	
Goodwill at 31 March 2014	24	

Total goodwill at 31 March 2014 is Tk.28 million.

Working-2: Retained earnings

	Group	Y	Z
	Taka million	Taka Million	Taka million
As per SOFP at 31 March 2014	65	60	46
Pre-acquisition reserves		(45)	(20)
Goodwill impairment (W1)		(6)	
Adjustment for movement in contingent liability on acquisition of Y (Tk5-2)		3	
Adjustment for long term bond (W4)	(1)		
		12	26
Group share of Y (75% x Tk.12 million)	9		
Group share Z (60% x Tk.26 million)	16		
Consolidated retained earnings	89		

Working-3: Non-controlling interests

	Acquisition of Y	Acquisition of Z
	Taka million	Taka million
At acquisition (as per W1)	40	42
NCI share of post-acquisition retained earnings of Y (25% X Tk.12 m)	3	
NCI share of post-acquisition retained earnings of Z (40%x Tk.26m)		10
Less cost of investment in Y (25% X Tk.70m)	(18)	
NCI at 31 March 2014	25	52

Total NCI at 31 March 2014 is therefore Tk.77 million.

Working-4: Long term bond

Opening balance	Effective interest 9.5%	Interest paid 5.5%	Closing balance
Taka million	Taka million	Taka million	Taka million
Tk(25m-0.25-Transaction cost) = 24.75m	2.35	(1.38)	25.72

Adjusting both the bond and retained earnings by Tk. 1 million will correct the posting of the transaction costs and record the additional finance cost to account for the effective interest, since interest paid has already been charged.

Consolidated statement of financial position as at 31 March 2014 for BX Group (workings in Taka millions)

Assets	**Taka million**
Non-current assets	
Property, plant and equipment (210+88+110)	408
Goodwill (W1)	28
	436

Current assets (60+46+28)	134
Total assets	570
Equity and Liabilities	
Equity attributable to owners of the parent	
Share capital (Tk.1 equity shares)	200
Share premium	50
Retained earnings (W2)	89
	339
Non-controlling interest (W3)	77
Total equity	416
Non-current liabilities (25+10+4+1(W4)+2 contingent liability)	42
Current liabilities (60+34+18)	112
Total liabilities	154
Total equity and liabilities	570

Note: All fraction figures have been avoided.

Solution to the question No. 4

(a) Financial performance

EEE has increased revenue by almost 20% in the year and has managed to improve its gross margin from 25.5% to 27.7%. This is a significant improvement in performance and to increase margins in a period of expansion shows either good management of resources or an indication that the entity is benefiting from economies of scale. The operating profit shows just a minor increase in margin, due to increases in both administration and distribution expenses. It is possible that depreciation charges could have increased due to new investment and revaluations in the year or the expansion of activities resulting in a wider distribution network.

The profitability has been boosted by the investment income from the available for sale investments, with profit for the year margin increasing by 9.1% from 6.2%. It should be noted that there was no income from the available for sale investment in 2017, possibly because they were acquired towards the end of that financial year or after dividends were paid and hence 2018 is possibly the first year to show this income. These investments have also generated valuation gains both in 2018 and 2017. This together with the significant income generated this year suggests that management has made a sound investment. It is also possible that if the entity was short of cash these assets could be easily sold to generate liquidity.

Investor ratios

The increase in profit for the year has had a positive impact on the earnings per share (EPS). It has increased from Tk.0.42 per share to Tk.0.73 per share. The dividend yield, however, has fallen significantly from 6.6% to 1.8%. This is not necessarily an indication of poor results. The entity paid a dividend of TK.100 million last year but reduced that dividend to Tk.50 million this year. This could show good management as they are actively retaining profits in a period of expansion. In addition, the entity is clearly investing inventories and property, plant and equipment so paying a higher dividend would have put undue pressure on the cash flow. It appears that the fall in dividend has not negatively affected the market perception of the entity, as the share price has increased significantly from Tk.5.08 to Tk.9.27. The P/E ration has also increased from 12.1 to 12.7 showing that the market has confidence in the entity and its management despite the drop in dividend yield.

Financial position

Gearing has increased slightly but this is due to the short term borrowings at the year end. The long term debt will have increased only by the amortized interest and is not due for redemption/conversion for another year. The revaluation in the year will also have reduced the gearing level. The interest cover has decreased from 32.0 to 11.7 and this is likely to be due to higher interest being charged on the overdraft. There is still adequate interest cover and the interest may come down in the future if the application for the longer term finance is approved.

Receivable days are largely unchanged from the previous year so it appears that expansion of activities has not compromised credit control. Payable days has increased by 10 days, however this could well be the result from a significant order at the year-end as inventory days have also increased. Indeed payable days even in 2018 are relatively low and it would be beneficial to have payables and receivables days being closer. EEE waits almost double the time to receive its cash than it takes to pay its own suppliers which has reduced from 4.1 to 1.8, although this would still be considered an acceptable liquidity ratio in most business scenarios. Inventories days have increased from 32 to 61 days at the year end. As already mentioned this could be due to large inventory purchase prior to the year end in anticipation of increasing demand.

It is encouraging that the management has been proactive and has applied for longer term finance to fund the ongoing expansion, and if this is approved there is likely to be no issue with cash management going forward. If interim reports were available, it would be worth reviewing the bank position to establish whether this is already the case.

Conclusion

EEE appears to be a well managed, profitable business with opportunities for both an income stream through the regular receipt of dividends, and capital growth, as the share price and P/E ratio are increasing. I would recommend you invest.

(b) The holders of the convertible debt will have the option to have their investment repaid or converted into ordinary shares. If the majority chooses to convert then the share capital of EEE will increase. This may reduce EPS, as the denominator is the number of equity shares and an increase in this will reduce the overall figure. A similar impact will occur with the calculation of dividend per share as more shares will be in issue. The impact on the P/E ratio and the dividend yield will be dependent on market forces and how the market reacts to having more shares in issue. The share price could improve as there could be more liquidity in the shares. Given that the existing and potential investors will be able to see a diluted eps figure reported in the accounts and will know that the convertible/redemption date is due, it is clearly not having a negative impact as the share price has increased significantly in the last year.

Workings- Ratios

Relevant ratios that could be calculated include:

All workings in Tk. Millions unless otherwise shown	2018	2017
Earnings per share (EPS)	218/300 m shares= Tk.0.73	126/300 m shares = Tk.0.42

PFY/number of shares		per share
Price/earnings ratio (P/E) Share price/EPS	Tk.9.27/Tk.0.73= 12.7	Tk.5.08/Tk.0.42= 12.1
Dividend yield Dividend per share/Share price	(50/300m shares)/Tk.9.27x100= 1.8%	(100/300 m shares)/Tk.5.08x 100= 6.6%
Gross profit margin (GP/Revenuex100)	665/2,400x100= 27.7%	515/2,020x100=25.5%
Operating profit (Profit before associate and finance costs/revenuex100)	(665-144-287)/2,400x100=9.8%	(515-103-220)/2,020x100=9.5%
Profit margin PFY/revenuex100	218/2,400x100=9.1%	126/2,020x100=6.2%
Gearing Debt/Equity	(200+58)/1,322x100=19.5%	188/1,052x100=17.9%
Current ratio Current asset/current liabilities	758/257=2.9	676/134=5.0
Quick CA-inventories/current liabilities	(758-290)/257=1.8	(676-130)/134=4.1
Interest coverage Operating profit/finance cost	234/20=11.7	192/6=32
Inventories Turnover Inventories/cost of salesx365	290/1,735x365= 61 days	130/1,505x365=32 days
Payables Turnover	199/1,735x365= 42 days	134/1,505x365= 32 days
Receivables Turnover Receivables/revenuex365	468/2,400x365=71 days	402/2,020x365= 73 days
NCA turnover Revenue/PPE	2,400/766= 3.1	2,020/448= 4.5
Total asset turnover Revenue/Total assets	2,400/(1,822-298)= 1.6	2,020/(1,404-280)=1.8
ROCE% Operating profit/capital employed	234/(1,322+200)x100=15.4%	192/(1,052+188)x100=15.5%

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