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MCT-078

MASTER OF BUSINESS ADMINISTRATION IN FINANCIAL MARKETS (MBAFM)

Term-End Examination

00834

December, 2014

MCT-078 : FINANCIAL MODELLING

Time : 3 hours *Maximum Marks : 100*

Note : *Answer any **five** questions. All questions carry equal marks.*

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1. "Financial models can integrate elements of accounting, finance, economics, corporate psychology and business philosophy." Elucidate the statement with supportive examples. *20*

2. Explain the following four financial models :

(a) Leveraged Buyout Model

(b) Project Finance Model

(c) Corporate Model

(d) Acquisition and Merger Model

Draw the structural difference between these models, specially on the basis of cash flow, debt analysis, information base, model output, etc. *20*

3. (a) Elaborate the way to forecast projections for financial model. *10*

(b) Explain the cash cycle and the operation cycle. *10*

4. What is WACC ? Give its example. Discuss the DCF method of valuation. What are its advantages ? *20*

5. Write short notes on any ***four*** of the following : *4×5=20*

   (a) Net Present Value

   (b) Free Cash Flow of Equity (FCFE)

   (c) Counter Party Credit Risk

   (d) Interest Rate Products Modelling

   (e) Monte Carlo Analysis

   (f) EPS Forecasting

6. Explain the essential aspects to be considered for model design of a financial statement. Discuss the discounting free cash flow and interest rate products modelling. *20*

7. The present credit terms of the Multimedia Co. are 2/15 net 45. Its sales are ₹ 200 MM, its average collection period is 30 days, its variable costs to sales ratio is 0·8 and its cost of capital is 12%. The proportion of sales on which the customers currently take discount is 0·5. Multimedia is considering relaxing its discount terms to 3/15 net 45. Such a relaxation is expected to increase sales by ₹ 10 MM, reduce average collection period to 27 days and increase the proportion of discount sales to 0·6. Multimedia's tax rate is 40%. What will be the effect of liberalizing the cash discount on residual income ? *20*

8. Please find the below :

Balance Sheet

Assets	**2008**	**2007**
Cash	$ 30	$ 15
Accounts receivable	$ 90	$ 45
Inventory	$ 120	$ 90
Current assets	$ 240	$ 150
Gross PPE	$ 1,200	$ 900
Accumulated depreciation	$ 570	$ 420
Total Assets	**$ 870**	**$ 630**

Liabilities	**2008**	**2007**
Accounts payable	$ 60	$ 60
Short-term debt	$ 60	$ 30
Current liabilities	$ 120	$ 90
Long-term debt	$ 342	$ 300
Common stock	$ 150	$ 150
Retained earnings	$ 258	$ 90
Total Liabilities and Equity	**$ 870**	**$ 630**

Income Statement

	2008	2007
Sales	$ 900	$ 750
Cost of goods sold	$ 360	$ 300
Gross Profit	**$ 540**	**$ 450**
SG&A	$ 105	$ 90
EBITDA	**$ 435**	**$ 360**
Depreciation	$ 150	$ 120
EBIT	**$ 285**	**$ 240**
Interest expense	$ 45	$ 30
Pre-tax earnings	**$ 240**	**$ 210**
Taxes (30%)	$ 72	$ 63
Net Income	**$ 168**	**$ 147**

Calculate the free cash flow to firm and free cash flow to equity for 2008.

Calculate the change in WC
Capital Expenditure
Net borrowings

FCFF	Using EBIT formula
FCFF	Using EBITDA formula
FCFF	Using Net Income formula

FCFE	Using Net Income formula
FCFE	Using FCFF formula

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