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16MBAFM406

# Fourth Semester MBA Degree Examination, June/July 2018
## Corporate Valuation

Time: 3 hrs. Max. Marks:80

**Note:** 1. *Answer any FOUR full questions from Q.No.1 to Q.No.7.*
2. *Question No. 8 is compulsory.*
3. *PV Table should be allowed.*

Important Note : 1. On completing your answers, compulsorily draw diagonal cross lines on the remaining blank pages.
2. Any revealing of identification, appeal to evaluator and /or equations written eg, 42+8 = 50, will be treated as malpractice.

1 a. What are the sources of uncertainity in valuation? **(02 Marks)**

b. What are the important types of intangible assets? How are they valued? **(06 Marks)**

c. XYZ Ltd is an unlisted company engaged in the manufacture of industrial chemicals. XYZ has a debt-equity ratio of 0.8 and a tax rate of 30%. There are 3 listed firms AB, MN and ST engaged in similar steel business. Their equity betas, debt – equity ratios and tax rate are as follows:

| Company | Equity beta | Debt-Equity ratio | Tax rate |
|---|---|---|---|
| AB | 1.20 | 1.2 | 30% |
| MN | 1.10 | 1.1 | 30% |
| ST | 1.05 | 1.2 | 30% |

What is the equity beta for XYZ Ltd? **(08 Marks)**

2 a. What are the best practices with respect to multiples? **(02 Marks)**

b. The current dividend on equity shares of Divya Ltd is Rs. 2 and Divya Ltd is expected to enjoy an above normal growth rate of 20% for a period of 6 years, thereafter growth rate will fall and stablise at 10%. The equity investor requires a return of 15%. What is the value of equity shares of Divya Ltd? **(06 Marks)**

c. Discuss briefly the 5 broad approaches for valuing company. **(08 Marks)**

3 a. What are the important difference between valuing a company and valuing a project? **(02 Marks)**

b. Angel ventures, a PE investor is considering investing Rs.3000 million in the equity of Delta systems, a start up IT company. Angel's required return from this investment is 35% and it is planned holding period is 5 years. Delta has projected an EBITDA of Rs. 4000 million for year 5. An EBITDA multiple of 6 for year 5 is considered reasonable. At the end of year 5, Delta systems is likely to have a debt of Rs.2500 million and a cash balance of Rs.800 million.

(i) What ownership share in Delta systems should Angel Venture ask for?
(ii) What is the post-money investment value of the firm's equity?
(iii) What is the pre-money investment value? **(06 Marks)**

c. Analog Limited is considering a capital project for which the following information is available :

Investment outlay = Rs. 5000 ; Project life = 4 years; Salvage value = 0;
Annual Revenue = Rs. 6000 ; Annual costs = 4000 (Excluding depreciation, interest and taxes); Depreciation = straight line (For tax purposes); Tax rate : 40% ;
Debt equity ratio = 4 : 5 ; Cost of equity = 18%; Cost of debt = 9% (post-tax)

(i) Calculate the EVA of the project over its life.
(ii) Compute the NPV of the project. **(08 Marks)**

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4 a. What are the key value drivers of free cash flow? **(02 Marks)**

b. The following information is available for MN company:
ROE = 20%, Cost of equity = 15%,
Dividend payout ratio = 0.4, Book value per share = Rs. 50. Net profit margin = 10%
Calculate the following for MN company:
(i) $\frac{P_0}{E_1}$ (ii) $\frac{P_0}{B_0}$ (iii) $\frac{P_0}{S_0}$ (iv) PEG (v) Value ratio. **(06 Marks)**

c. What are the guidelines bear in mind while doing corporate valuation? **(08 Marks)**

5 a. List the key steps involved in the Marakon approach. **(02 Marks)**

b. The current dividend on an equity shares of IMC computers Ltd. is Rs. 3. The present growth rate is 50%. However this will decline linearly over a period of 10 years and then stabilize at 12%. What is the intrinsic value per share of IMC computers Ltd. using H model, if investors require a return of 16%? **(06 Marks)**

c. The profit and loss A/C and Balance sheet of Keerthi corporation for two years are given below:

P & L A/C (Rs. in million)

| | 2016 | 2017 |
|---|---|---|
| Net sales | 5600 | 6440 |
| Income from marketable securities | 140 | 210 |
| Non-operating income | 70 | 140 |
| Total income | 5810 | 6790 |
| Cost of goods sold | 3220 | 3780 |
| Selling and administrative expenses | 700 | 770 |
| Depreciation | 350 | 420 |
| Interest expenses | 336 | 392 |
| Total cost and expenses | 4606 | 5362 |
| Profit before tax | 1204 | 1428 |
| Tax provision | 364 | 448 |
| PAT | 840 | 980 |
| Dividend | 420 | 560 |
| Retained earnings | 420 | 420 |

Balance Sheet (Rs. in million)

| Liabilities | 2016 | 2017 | Assets | 2016 | 2017 |
|---|---|---|---|---|---|
| Equity capital | 2100 | 2100 | Fixed assets | 4200 | 4550 |
| Reserve and surplus | 1680 | 2100 | Investments | 1260 | 1400 |
| Debt | 2520 | 2940 | Net current assets | 840 | 1190 |
| | 6300 | 7140 | | 6300 | 7140 |

Assume a tax rate of 40%, calculate
(i) What is the NOPLAT for year 2?
(ii) What is the free cash flow to the firm (FCFF) for year 2?
(iii) Give the break-up of the financing flow for year 2. **(08 Marks)**

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6 a. MN Ltd. earns a return on equity of 25%. Its dividend payout ratio is 0.40. Required rate of return is 18%. The book value per share is Rs.50. What is market price per share according to Marakon model? **(02 Marks)**

b. Describe the context in which corporate valuation is done. **(06 Marks)**

c. You have developed the following projections for PQR Ltd.

(Rs. in million)

| | 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|
| Free cash flow to firm | 200 | 250 | 300 | 340 | 380 |
| Interest bearing debt | 500 | 400 | 300 | 200 | 100 |
| Interest expenses | 60 | 48 | 36 | 24 | 12 |

Calculate the enterprise value of PQR Ltd using the following assumptions:

i) Beyond year 5, the FCFF will grow at a constant rate of 10% p.a.
ii) PQR's unlevered cost of equity 14%.
iii) After year 5, PQR will maintain a debt-equity ratio of 4 : 7.
iv) The borrowing rate of PQR will be 12%.
v) The rate is 30%.
vi) The risk free rate is 8%.
vii) The market risk premium is 6%. **(08 Marks)**

7 a. Under which situation DCF method is applicable? **(02 Marks)**

b. Discuss the steps involved in Relative valuation. **(06 Marks)**

c. What are the areas of activity for making value happen according to the Mc Kinsey approach? **(08 Marks)**

8 Case Study : (Compulsory)

Exotica corporation is expected to grow at a higher rate for 5 years, thereafter the growth rate will fall and stabilize at a lower level. The following information is available:

| | |
|---|---|
| I Base year (year '0') information | Revenue = Rs.4000 million,<br>EBIT (12.5% revenue) = Rs.500 million.<br>Capital expenditure = Rs.300 million,<br>Depreciation = Rs.200 million,<br>Net working capital as a % of revenue = 30%,<br>Tax rate = 40%,<br>Paid up equity (10 par) = Rs. 300 million,<br>Market value of debt = Rs. 1250 million |
| II Inputs for High Growth rate | Length of high growth phase = 5 year,<br>Growth rate in revenue, depreciation,<br>EBIT and capital expenditure = 10%,<br>Net working capital as a % of revenue = 30%,<br>Tax rate = 40%, Cost of debt = 15% (pre-tax),<br>Debt-equity ratio = 1 : 1, Risk free rate = 13%<br>Market risk premium = 6%, Equity beta = 1.333 |
| III Inputs for the stable growth period. | Expected growth rate in revenue and EBIT = 6%<br>Net working capital as a % of revenue = 30%.<br>Capital expenditures are offset by depreciation.<br>Cost of debt – 15% (pre-tax)<br>Tax rate – 40%, Debt – equity ratio = 2 : 3<br>Risk – free rate = 12% , Market risk premium = 7%<br>Equity beta = 1.0 |

Calculate the value of the firm? **(16 Marks)**

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