# JAIPURIA INSTITUTE OF MANAGEMENT, NOIDA <br> PGDM / PGDM (M) / PGDM (SM) <br> FOURTH TRIMESTER (Batch 2020-22) <br> END TERM EXAMINATIONS, OCTOBER, 2021 

| Course Name | CORPORATE VALUATION | Course Code | FIN401 |
| :--- | :--- | :--- | :--- |
| Max. Time | $\mathbf{2}$ hours | Max. Marks | $\mathbf{4 0 ~ M M ~}$ |

a. This is an open-book exam. Students can use the hardcopy of the textbook only.
b. Students can use a hand-held calculator. Calculator app available in a mobile phone is NOT allowed.
c. Attempt all the questions. Maximum marks are shown against every question.
d. Workings must form part of your answers.

1. Suppose you are verifying a valuation done on an established company by a well-known analyst has estimated a value of Rs. 750 lakhs, based upon the expected free cash flow next year, of Rs. 30 lakhs, and with an expected growth rate of $5 \%$. You found that, he has made the mistake of using the book values of debt and equity in his calculation. While you do not know the book value weights he used, you have been provided following information:
(a) Company has a cost of equity of $12 \%$.
(b) After-tax cost of debt of $6 \%$.
(c) The market value of equity is three times the book value of equity, while the market value of debt is equal to the book value of debt. 'You are required to estimate the correct value of company.
(8 marks)
2. ABC (India) Ltd., a market leader in consumer durable sector, is planning to diversify into defence equipment businesses that have recently been partially opened up by the GOI for private sector. In the meanwhile, the CEO of the company wants to get his company valued by a leading consultant, as he is not satisfied with the current market price of his scrip. He approached a consultant with a request to take up valuation of his company with the following data for the year ended 2021:

| Share Price | Rs. 66 per share |
| :--- | :--- |
| Outstanding debt | Rs. 1934 lakh |
| Number of outstanding shares | 75 lakh |
| Net income | Rs. 17.2 lakh |
| EBIT | Rs. 245 lakh |
| Interest expenses | Rs.218.125 lakh |
| Capital expenditure | Rs.234.4 lakh |
| Depreciation | Rs.234.4 lakh |
| Working capital | Rs.44 lakh |
| Growth rate | $8 \%$ (from 2022 to 2026) |
| Growth rate | $6 \%$ (beyond 2026) |
| Free cash flow | Rs.240.336 lakh (year 2026 onwards) |

The capital expenditure is expected to be equally offset by depreciation in future and the debt is expected to decline by $30 \%$ by 2026 . Appraise the value of the company and discover whether the ruling market price is undervalued as felt by the CEO based on the foregoing data. Assume that the cost of equity is $16 \%$, and $30 \%$ of debt repayment is made in the year 2026.
3. Partially completed calculations are provided for the income statement, balance sheets, retained earnings, and free cash flows for the Missing Data Ltd. in the table that follows. The company distributes all equity free cash flows to equity shareholders in the form of dividends; in other words, it does not hold any excess cash. The interest rate it pays on debt is $7 \%$, and its preference share dividend rate is $8 \%$ (of the company's book value of preference share). All cash flows occur at the end of each year. The tax rate is $25 \%$ on the first $\$ 4000$ of income and $45 \%$ on all income above $\$ 4000$. Complete the table for years 0 and 1 . Note that the missing values are indicated by "?-\#", for example, ? $-1, ?-2$, and so on; (that is, question mark hyphen serial number)

Income Statement, Balance Sheets, and Free Cash Flow Schedules for the Missing Data Ltd.

| Income Statement and Balance Sheet |  |  |  | Free Cash Flow and Equity Cash Flow |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Actual Year - 1 | Actual Year 0 | Forecast Year 1 |  | Actual Year 0 | Forecast Year 1 |
| Income Statement |  |  |  | EBIT | \$3,180 | \$3,935 |
| Revenue | \$9,568 | \$9,759 | \$10,735 | --Income tax on EBIT | -795 | -984 |
| Operating expenses | -5,262 | -5,368 | -5,368 | Adjusted PAT | \$2,385 | \$2,951 |
| Depreciation | -1,091 | -1,212 | -1.433 | +Depreciation | 1,212 | 1,433 |
| EBIT | 3,215 | 3,180 | 3,935 | -Change in req. cash | ? -15 | ? -15 |
| Interest | 0 | ? -1 | ? -1 | -Change in NWC | ? -16 | ? -16 |
| PBT | ? -2 | ? -2 | ? -2 | -Capital expenditure | -2,432 | -2,372 |
| Income tax | -804 | ? -3 | ? -3 | Unlevered Free CF | ? -17 | ? -17 |
| PAT | 2,411 | ? -4 | ? -4 | - Interest paid in cash | ? -18 | ? -18 |
| Statement of Retained Earnings |  |  |  | +Interest tax shield | 158 | 151 |
| Beginning of year balance |  |  |  | -Preferred stock dividend | ? -19 | ? -19 |
| PAT | 2,411 | ? -5 | ? -5 | +Change in debt financing | -400 | -1,300 |
| Preferred stock dividend | -60 | ? -6 | ? -6 | +Change in Pref. Stk. fin. | 140 | 380 |
| Equity dividendo | -500 | ? -7 | ? -7 | =Equity free cash flow | $?-20$ | $?$ |
| End of year balance | $\underline{\underline{2}, 060}$ | ? -8 | ? -8 |  |  |  |
| Balance Sheet |  |  |  | Notes: |  |  |
| Cash | 96 | 98 | 107 | a. The table may contain small rounding errors |  |  |
| Net working capital | 765 | 781 | 429 | b. Ignore the mandatory statutory format |  |  |
| Net fixed assets | 12,199 | ?-9 | ? -9 | c. Make suitable assumptions, wherever necessary |  |  |
| Total assets | 13,060 | ? -10 | $?-10$ |  |  |  |
| Debt | 9,000 | ?-11 | ? -11 |  |  |  |
| Preferred stock | 1,000 | ? -12 | ? -12 |  |  |  |
| Total liabilities \& equity | 13,060 | ? -14 | ? -14 |  |  |  |

Build a similar table on your answer sheets with filled-in missing values. Show all necessary calculations as workings notes.

