| Subject | Corporate Valuation |  |  |  |
| :--- | :--- | :--- | :--- | :---: |
| Roll No. |  | Marks | $\mathbf{6 0}$ Marks |  |
| Total No. of Questions | 7 | Duration | 3 Hours |  |
| Total No. of printed pages |  | Date | $\mathbf{2 2 . 1 0 . 2 0 1 6}$ |  |

Note: Q1 is compulsory and solve any FOUR from the remaining SIX questions.
Q. 1 (a) John Ltd. and Miller Ltd. are planning to merge. The total value of the companies are dependent on the fluctuating business conditions. The following information is given for the total value (debt + equity) structure of each of the two companies.

Rs. Lakhs

| Business Condition | Probability | John Ltd. | Miller Ltd. |
| :--- | :--- | :--- | :--- |
| High Growth | 0.20 | 820 | 1050 |
| Medium Growth | 0.60 | 550 | 825 |
| Slow Growth | 0.20 | 410 | 590 |

The current debt of John Ltd. is Rs. 65 Lakhs and of Miller Ltd. is Rs. 460 Lakhs. Calculate the expected value of debt and equity separately for the merged entity.

## Marks)

(b) You are appointed to value Platinum Ltd., a jewelry industry company. The management asks you to value the company based on the comparable company approach.
(Rs. Crores)

| Particulars | Gold Ltd. | Silver Ltd. | Diamond Ltd. | Platinum Ltd. |
| :--- | ---: | ---: | ---: | ---: |
| Market Value | 200 | 150 | 180 | $?$ |
| Replacement <br> Value | 275 | 200 | 220 | 250 |
| Book Value | 100 | 150 | 150 | 200 |
| PAT | 20 | 18 | 16 | 18 |
| Sales Revenue | 300 | 240 | 250 | 275 |

(10 Marks)

## Attempt Any FOUR from the Remaining SIX Questions

Q2) Any two from (a) or (b) or (c) ——_ (5x2) = 10 Marks
a) Sun Ltd. projects the following figures for the financial year 2016-2017:

| Net Income after tax | $=$ Rs. 130 crores. |
| :--- | :--- |
| Depreciation | $=$ Rs. 50 crores. |
| Capital expenditure planned | $=$ Rs. 80 crores. |
| Additional working capital needed | $=$ Rs. 25 crores. |
| Principal repayment of debt | $=$ Rs. 10 crores. |

As the firm has a very low debt equity ratio, it plans to increase its leverage by financing debt repayment and $30 \%$ of the planned capital expenditure and additional working capital needs by raising fresh debt.

Project the free cash flow to equity for 2016-2017.
b) What do you understand by Economic Value Added (EVA)? How can management enhance EVA for a company?
c) XYZ Ltd. paid a dividend of Rs. 2 for the current year. The dividend is expected to grow at $40 \%$ for the next 5 years and at $15 \%$ per annum thereafter. The return on 182 days T-bills is $11 \%$ per annum and the market return is expected to be around $18 \%$ with a variance of $24 \%$. The co-variance of XYZ's return with that of the market is $30 \%$. You are required to calculate the required rate of return and intrinsic value of the stock.

Q3) Any two from (a) or (b) or (c) —_ (5x2) = 10 Marks
a) Explain the disadvantages of Relative Valuation method of Corporate Valuation.
b) The following financial data pertaining to Infotech Ltd., an IT company are made available to you:

Rs. Crores

| FY ended | $\mathbf{2 0 1 6}$ | $\mathbf{2 0 1 5}$ | $\mathbf{2 0 1 4}$ |
| :--- | :--- | :--- | :--- |
| EBIT | 696.03 | 325.65 | 155.86 |
| Non-branded <br> Income | 53.43 | 35.23 | 3.46 |
| Inflation <br> Compounded <br> factor@8\% | 1.000 | 1.087 | 1.181 |

Remuneration of capital: $5 \%$ of average capital employed
Average Capital employed: Rs. 1,112 crores
Corporate Tax Rate: 35\%
Capitalization Factor: 16\%
You are required to calculate the Brand value for Infotech Ltd.
c) From the following details, compute according to Lev and Schwartz (1971) model, the total value of human resources for employee groups- Skilled and unskilled:

| Particulars | Skilled | Un-skilled |
| :--- | :--- | :--- |
| (i) Annual average earning of an employee till age <br> of retirement | Rs. 1,00,000 | Rs. 60,000 |
| (ii) Age of retirement | 65 years | 62 years |
| (iii) Discount rate | $20 \%$ | $20 \%$ |
| (iv) No. of employees in the group | 25 | 20 |
| (v) Average age | 62 years | 60 years |

It is assumed that employees will leave the organization only on retirement.
Q4) Any two from (a) or (b) or (c) ——— (5x2) = 10 Marks
a) Following is the information given for ABC Ltd:

Current Dividend: Rs. 2.50 per share
Discount rate: 10.5\%
Growth rate: 2\%
(i) Calculate the present value of stock of ABC Ltd.
(ii) Is its stock overvalued, if stock price is Rs. 35, ROE=9\% and EPS= Rs. 2.25? Show detailed calculation.
b) M Ltd. agrees to acquire $N$ Ltd. based on the capitalization of last three years profits of N Ltd. at an earning yield of $25 \%$

| Profits of N Ltd. for the years | Rs. In lakhs |
| :--- | :--- |
| 2014 | 75 |
| 2015 | 89 |
| 2016 | 82 |

Calculate the value of business based on earning yield basis.
c) Calculate the value of share of Avenger Ltd. from the following information:

| Equity capital of company | RS 1,200 crores |
| :--- | :--- |
| Profit of the company | RS 300 crores |
| Par value of share | RS 40 each |
| Debt ratio of company | 25 |
| Long run growth rate of the company | $8 \%$ |
| Beta 0.1; risk free interest rate | $8.7 \%$ |
| Market returns | $10.3 \%$ |
| Change in working capital per share | RS 4 |
| Depreciation per share | RS 40 |
| Capital expenditure per share | RS 48 |

## Q5) Any two from (a) or (b) or (c) ——— (5x2) = 10 Marks

a) The CEO of a company thinks that shareholders always look for EPS. Hence, he considers maximization of EPS as his company's objective. His company's current Net Profits after tax are Rs. 80 lakhs and P/E multiple is 10.5 . He wants to buy another firm which has current income of Rs. 15.75 lakhs \& PE multiple of 10 . What is maximum exchange ratio which the CEO should offer so that he could keep EPS at the current level, price of both the acquirer and the target company are Rs. 42 CEO borrows funds at $15 \%$ and buys out target company by he offer to maintain his EPS? Assume tax rate of 30\%.
b) A company has a book value per share of Rs. 137.80. Its return on equity is $15 \%$ and follows a policy of retaining 60 percent of its annual earnings. If the opportunity cost of capital is $18 \%$, what is the price of its share? (Adopt the Dividend Discount Model).
c) Bright Computers limited is planning to issue a debenture series with a face value of RS 1,000 each for a term of 10 years with the following coupon rates:

| Years | Rates |
| :---: | :---: |
| $1-4$ | $8 \%$ |
| $5-8$ | $9 \%$ |
| $9-10$ | $13 \%$ |

The current market rate on similar debenture is $15 \%$ p.a. the company proposes to price the issue in such a way that a yield of $16 \%$ compounded rate of return is received by the investors. The redeemable price of the debenture will be at $10 \%$ premium on maturity. What should be the issue price of debenture?

Pv @16\% for 1 to 10 years are: . 862, . $743, .641, .552, .476, .410, .354, .305, .263, .227$ respectively.
Q6) Any two from (a) or (b) or (c) ——— (5x2) = 10 Marks
a) Tender Limited has earned a net profit of Rs. 15 lakhs after tax at $30 \%$. Interest cost charged by financial institutions was Rs. 10 lakhs. The invested capital is Rs. 95 lakhs of which $55 \%$ is debt. The company maintains a weightage average cost of capital of $13 \%$. Required:
i. Compute the Operating income.
ii. Compute the Economic Value Added (EVA).
iii. Tender Ltd. has 6 lakhs equity shares outstanding. How much dividend can the company pay before the value of the entity starts declining?
b) The following information relates to the business of a firm:

- Average capital employed in the business Rs. 7,20,000
- Net trading profits of the firm for the past three years after taxation were Rs. 1,07,600, Rs. 90,700 and Rs. 1,12,500
- Reasonable return expected in the same type of business is $10 \%$
- Fair remuneration to the partners for their services is Rs. 12,000 per anum.

You are required to calculate the value of goodwill on the basis of five year's purchase of annual average super profits.
c) Based on the above data, calculate the value of goodwill on the basis of:
(i) Capitalization of the annual average super profits at the reasonable return of $10 \%$ and
(ii) Annuity of super profits, taking the present value of annuity of one rupee for five years at $10 \%$ interest is Rs. 3.78.

## Q7) Any two from (a) or (b) or (c) ——— (5x2) = 10 Marks

a) Based on the credit rating of the bonds, $A$ has decided to apply the following discount rates for valuing bonds:

| Credit rating | Discount rate |
| :---: | :--- |
| AAA | 364 -day T-bill rate $+3 \%$ spread |
| AA | AAA $+2 \%$ spread |
| A | AAA $+3 \%$ spread |

He is considering to invest in AA rated RS 1,000 face value bond currently selling at RS $1,025.86$. The bond has five years to maturity and the coupon rate on the bond is $15 \%$ p.a. payable annually.

The next interest payment is due one year from today and the bond is redeemable at par. (Assume the 364-day T-bill rate to be $9 \%$ ).

You are required to calculate the intrinsic value of the bond for A . should he invest in the bond?
b) Based on the above data, calculate the current yield (CY) and the Yield to Maturity (YTM) of the bond.
c) Explain with examples the concepts of Value Creation, Value Maximization \& Value Retention \& their relationship with shareholder value.

