PGDM, PGDM (IB) 2019-21 Investment Management DM 314 / IB 313

Trimester – III, End-Term Examination: June 2020

Case Study: Business Tech Ltd was set up 25 years ago. After few years of initial turbulence the company found a few market segments in which it had some competitive advantage. The financials of the company for the last five years are given below:

				Rs. in million	
Income Statement Summary	20 x 1	20 x 2	20 x 3	20 x 4	20 x 5
Net sales	1800	2160	2500	3010	3800
 Profit before interest & tax 	540	610	625	780	1180
Interest	108	140	150	187	290
 Profit before tax 	432	470	475	593	890
• Tax	125	140	142	180	275
 Profit after tax 	307	330	333	413	615
 Dividends 	108	116	117	165	246
 Retained earnings 	199	214	216	248	369
Balance Sheet Summary					
 Equity capital (Rs.10 par) 	150	150	150	150	150
 Reserves and surplus 	800	1014	1230	1478	1847
 Loan funds 	_200_	_240_	250	275_	325
 Capital employed 	1150	1404	1630	1903	2322
 Net fixed assets 	800	830	950	1170	1530
 Investments 	100	110	120	135	140
 Net current assets 	250	464	560	598	652
	1150	1404	1630	1903	2322
 Market price per share(year ended) 	120	176	180	270	462

The year 20x5 has just ended. The current market price per share is Rs.462. The market price per share at the beginning of 20x1 was Rs.82.

- 1. What was the geometric mean return for the past 5 years?
- 2. Calculate the following for the past 2 years: book value per share, EPS and PE ratio
- 3. Calculate the CAGR of Sales & EPS for the period 20 x 1 20 x 5.
- 4. Calculate the sustainable growth rate based on the average retention ratio and the average return on equity for the past 2 years.
- 5. Decompose the ROE for the last 2 years in term of three factors.
- 6. Estimate the EPS for the next year (20 x 6) using the following assumptions.
 - i. Net sales will grow at 30%
 - ii. PBIT / Net sales ratio will improve by 1.5% over its 20 x 5 value.
 - iii. Interest will increase by 5% over its 20 x 5 value.
 - iv. Effective tax rate will be 30%.

- 7. Derive the PE ratio using the constant-growth model. For this purpose use the following assumptions.
 - i. The dividend payout ratio for 20 x 6 will be equal to the average dividend pay out Ratio for the period $20 \times 4 20 \times 5$.
 - ii. The required rate of return is estimated with the help of the CAPM (Risk free return = 7%, Market risk premium = 10%, Beta of Business's Stock = 1.3).
 - iii. The expected growth rate in dividends is set equal to the product of the average return on equity and average retention ratio for the previous 2 years.
- 8. How to calculate the risk of a stock? How can an investor bring down the risk of a portfolio? Under what circumstance/s risk of a portfolio be zero? How should an investor calculate minimum risk portfolio?

(2+3+3+2+3+3+4+10 = 30 Marks) (CILO 2 and 3)