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Your Roll No.....

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Unique Paper Code : 61017928
Name of the Paper : Business Analysis and Valuation
Name of the Course : Bachelor of Management Studies (BMS),
2022 (LOCF)
Semester : V
Duration : 3 Hours
Maximum Marks : 75

Instructions for Candidates

1. Write your Roll No. on the top immediately on receipt of this question paper.
2. Use of Scientific Calculator is allowed.

1. In April 2022, Nirman Ltd announced its plan to acquire Ganpati Ltd. At the time of the acquisition, the relevant information about the two companies was as follows:

	Nirman Ltd	Ganpati Ltd.
Revenues	Rs. 1,200.00	Rs. 600.00
Cost of goods sold (without depreciation)	57.00%	75.00%
Depreciation	Rs. 42.00	Rs. 25.00
Tax rate	30%	30%
Capital spending	Rs. 75.00	Rs. 40.00
Working capital (as % of revenue)	40.00%	30.00%
Beta	1.2	1.2
Expected growth rate in revenues/EBIT	25.00%	15.00%
Expected period of high growth	5 years	5 years
Growth rate after high growth period	6.00%	6.00%
Beta after high growth period	1.10	1.10

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Capital spending will be 115% of depreciation after the high-growth period. Neither firm has any debt outstanding. The Treasury bond rate is 7%.

- (a) Estimate the value of Nirman, operating independently.
- (b) Estimate the value of Ganpati Co., operating independently.
- (c) Estimate the value of the combined firm, with no synergy.
- (d) As a result of the merger, the combined firm is expected to grow 24% a year for the high growth period. Estimate the value of the combined firm with the higher growth.
- (e) What is the synergy worth? What is the maximum price Nirman can pay for Ganpati Co.?

(15)

2. A company is planning to invest Rs 200cr in a new technology whose success depends on the market conditions in the future. The expected market conditions with their probability and cash flows are as follows:

Market Condition	Probability	20x1	20x2	20x3	20x3
Bullish	0.25	-200	132	132	132
Moderate	0.50	-200	100	100	100
Bearish	0.25	-200	20	20	20

The Company is also thinking to wait and watch for a year to get more clarity about the market condition. That will help in taking more appropriate investment decision. Do you advise for one year deferment of the investment? Use Black-Scholes model for your calculation if company wants a return of 14% in the environment of 6% risk-free return.

(15)

3. Answer the following questions based on the financial highlights of Maruti Suzuki (Annexure 1). Conduct a Du Pont analysis of the company and interpret the numbers. Comment on financial health of the company supporting your arguments with various financial ratios & results of Du Pont Analysis. (15)
4. (a) Compute the value of Maruti Suzuki Ltd. with the help of relative valuation approach using the following information. The valuer feel that 38% weightage should be given to earnings in the valuation process, sales may be given 38% weightage and book value may be given 24% weightage. The valuer has identified 3 firms which are comparable to operations of Maruti Suzuki. [* Crores]

Particulars	M&M	Ashok Leyland	Tata Motors
Sales	45,040.98	15,598.43	47,031.47
EBITDA	268.66	-313.68	-2395.44
Book Value	43,665.47	11,183.96	44,060.03
Enterprise Value	116,525.13	42,740.88	168,339.21

- (b) Discuss Bottoms up Beta, Levered Beta & Unlevered Beta. (10 + 5)

OR

4. The Risk-free rate of return is 8%, the expected rate of return on the market portfolio is 15%, and stock of Phyl Corporation has a beta coefficient of 1.2. Phyl pays out 40% of its earnings in dividends, and the latest earnings announced were Rs 10 per share. Dividends were just paid and are expected to be paid annually. You expect that Phyl will earn an ROE of 20% per year on all reinvested earnings forever.

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- (a) What is the intrinsic value of a share of Phyl?
- (b) If the market price of a share is currently Rs 100, and you expect the market price to be equal to the intrinsic value 1 year from now, what is your expected 1-year holding period return on Phyl stock? (10 + 5)

5. (a) You have been given the following projections for A&J Limited:

Year	1	2	3	4	5
Free cash flow of the firm	400	460	540	620	620
Interest-bearing debt	750	700	600	500	700
Interest expense	100	85	74	60	50

Compute the enterprise value of A&J Limited using the following assumptions:

Beyond year 5, the cash flow to the firm of A&J Limited will grow at a constant rate of 10 percent per annum

- (a) A&J's unlevered cost of equity is 15 percent and its borrowing rate will be 12 percent
After year 5, A&J limited will maintain a debt-equity ratio of 1:2
- (b) The tax rate for is 30 percent
- (c) The risk-free rate is 7 percent
- (d) The market risk premium is 8 percent,

Calculate the enterprise value of A&J Limited.

(10)

5. (b) Green Textiles is an unlisted Textiles company whose debt-equity ratio is 1.6 and tax rate is 25 percent. There are three listed firms, P, Q, and R, engaged in similar Textile business. Their equity betas, debt-equity ratios, and tax rates are as follows:

	Equity beta	Debt-equity ratio	Tax rate
P	1.1	1.9	0.30
Q	1.2	2.1	0.25
R	1.05	1.8	0.35

What is the equity beta for Green Textiles?

(5)

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Annexure 1

Financial Highlights of Maruti Suzuki

(In ₹ million)

Profit and Loss Statement	2020	2021	2022
Particulars	Actual	Actual	Actual
REVENUE FROM OPERATIONS [GROSS]	756,600.00	703,720.00	883,298.00
Other Income	33344	29363	17447
TOTAL INCOME(I+II)	789,944.00	733,083.00	900,745.00
EXPENSES			
Cost-Of Materials Consumed	346,348.00	332,964.00	397,396.00
Purchase Of Stock-In Trade	187,672.00	172,541.00	263,975.00
Changes In Inventories Of FG,WIP And Stock-In Trade	-2387	2736	-931
Excise Duty			
Employee Benefit Expenses	34162	34,316.00	40,514.00
Finance Costs	1,342.00	1,018.00	1266
Depreciation And Amortisation Expenses	35,284.00	30,341.00	27,890.00
Other Expenses	118,896.00	108,375.00	126,727.00
Vehicles/dies for own use	-1,217.00	-728.00	-1,445.00
TOTAL EXPENSES	720,100.00	681,563.00	855,392.00
Share of Profit of associates -	1,175.00	1,588.00	1,464.00
Share of Profit of Joint venture	9.00	102.00	155.00
PROFIT/LOSS BEFORE TAX	71,028.00	53,210.00	46,972.00
TAX EXPENSES			
Current Tax	13765	11,562.00	14,310.00
Deferred Tax	487.00	-2,243.00	-6133
TOTAL TAX EXPENSES	14,252.00	9,319.00	8,177.00
PROFIT/LOSS FOR THE PERIOD	56,776.00	43,891.00	38,795.00
OTHER COPREHENSIVE INCOME			
A (i) Items that will not be reclassified to profit or loss			
(a) gain / (loss) of defined benefit obligation	-718.00	545.00	223.00
(b) gain / (loss) on change in fair value of equity instruments	-3,902.00	4,704.00	3,170.00
(c) gain/(loss) on share of other comprehensive income in associate and joint venture		10.00	4.00
A (ii) Income tax relating to items that will not be	203.00	-123.00	-268.00

reclassified to profit or loss

B (i) Items that will be reclassified to profit or loss

(a) effective portion of gain / (loss) on hedging instruments in a cash flow hedge

B (ii) Income tax relating to items that will be reclassified to profit or loss

Total Other Comprehensive Income (A (i+ii)+B(i+ii))	-4,417.00	5,136.00	3,129.00
Total Comprehensive Income for the period (VII + VIII)	52,359.00	49,027.00	41,924.00
Earnings per equity share (₹)			
Basic EPS (Rs.)	187.95	145.3	128.43
No of Shares	187.95	145.3	128.43

Balance Sheet	2020	2021	2022
Particulars	Actual	Actual	Actual
ASSETS			
NON-CURRENT ASSETS			
Property, plant and equipment	147,905.00	141,785.00	128,261.00
Capital Work-In-Progress	13,443.00	11,993.00	26,462.00
Intangible Assets	3358	5217	6,402
Right-of-use Assets	6890	5860	5,712
Financial assets			
Investments	362,692.00	345,291.00	379,346.00
Loans	2	2.00	2.00
Other financial assets	365	369	375
Non current Tax assets(Net)			5,446.00
Deffered Tax assets			1,411.00
Other Non-Current Assets	17,216.00	16,867.00	25,204.00
TOTAL NON-CURRENT ASSETS	551871	527384	578621
CURRENT ASSETS			
Inventories	32,139.00	30,490.00	35,323.00
Financial assets			
Investments	12188	84157	41,001
Trade Receivables	19,777.00	12,799.00	20,345.00
Cash And Cash Equivalentents	208.00	408.00	351.00

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Other bank balances		30063	30,071
Short Term Loans And Advances	252	230	305
Other financial assets	6596	6427	25,930
Current tax assets (Net)	5272	5407	
Other Current Assets	7,974.00	15,462.00	14,608.00
TOTAL CURRENT ASSETS	84,406.00	185,443.00	167,934.00
TOTAL ASSETS	636,277.00	712,827.00	746,555.00
EQUITY AND LIABILITIES			
EQUITY			
Equity Share Capital	1510	1510	1510
Other Equity		523,496.00	551,825.00
Equity attribute table to owners of the company			
Non Controlling interest			
Reserves and Surplus	492,812.00		
TOTAL EQUITY	494322	525006	553335
LIABILITIES			
NON-CURRENT LIABILITIES			
Financial Liabilities			
Borrowings	54.00	28.00	
Lease liabilities	598.00	392.00	329.00
Long Term Provisions	516.00	447.00	844.00
Deferred Tax Liabilities [Net]	6575	4454	
Other Long Term Liabilities	21,158.00	21,295.00	21,812.00
TOTAL NON-CURRENT LIABILITIES	28,901.00	26,616.00	22,985.00
CURRENT LIABILITIES			
Financial Liabilities			
Short Term Borrowings	1,063.00	4,888.00	3,819.00
Trade Payables			
Total outstanding dues of micro, small and medium enterprises	481	698.00	1,087
Total outstanding due of creditors other than micro, small and medium enterprises	74,507.00	100983	96,565.00
Lease liabilities	103.00	74	80.00
Other Financial Liabilities	9,040.00	12720	20,272.00
Short Term Provisions	6,807.00	7,428.00	8,613.00
Current tax Liabilities (Net)	6,962.00	8,547.00	11,113.00
Other Current Liabilities	14,091.00	25,867.00	28,686.00
TOTAL CURRENT LIABILITIES	113,054.00	161,205.00	170,235.00
TOTAL LIABILITIES	141,955.00	187,821.00	193,220.00
TOTAL EQUITY AND LIABILITIES	636,277.00	712,827.00	746,555.00