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JAIPURIA INSTITUTE OF MANAGEMENT, NOIDA

PGDM / PGDM (M) / PGDM (SM)

IV TRIMESTER (Batch 2021-23)

END TERM EXAMINATION, NOVEMBER 2022

Course Name	**Corporate Valuation**	Course Code	**20224**
Max. Time	**2 hours**	Max. Marks	**40 MM**

INSTRUCTIONS:

a. This is an open book exam. Students can bring the textbook. They can use a calculator.
b. Workings should form part of the answers.

1. Rockstar Movies Ltd (RML) was the second largest chain of videocassette rental stores in the Delhi-NCR area, operating 30 wholly owned outlets. Begun in 1988 as a small store in Rohini catering mostly to students, the company grew rapidly, primarily due to its reputation for customer service and an extensive selection of foreign and independent movies. These differentiating factors allowed RML to compete directly with the leader in the industry, Superhit Video. But unlike the larger rival, RML had no ambitions to grow outside of its NCR territory.

In March 2001, RML was considering entering the business of home delivery of movie rentals. The company would set up a web page where customers could choose movies based on available in-store inventory and pick a time for delivery. This would put the company in competition with new internet-based competitors, such as Netflix.com that rented DVDs through the mail and Kramer.com and Cityretrieve.com that hand delivered DVDs and videocassettes. The company expected that the project would increase its annual revenue growth rate from 5% to 10% a year over the following 5 years. After that, as the home delivery business matured, the free cash flow would grow at the same 5% long-term rate as the videocassette rental sector as a whole.

Exhibit A contains management's projections for the expected incremental revenues and cash flows achievable from the new project. RML management's major concern was the significant up-front investment required to start the project. This consisted primarily of setting up a network of delivery vehicles and staff, developing the website, and some initial advertising and promotional efforts to make existing customers aware of the new service. Management estimated these costs at Rs.15 crore, all of which would be incurred in December 2001, as the service would be launched in January 2002.

Management was debating how to assess the project's debt capacity and the impact of any financing decisions on value. In thinking about how much debt to raise for the project, they were of the opinion to fund a fixed amount of debt of Rs.7.5 crore. **Exhibit B** contains information on market conditions as well as management's assumptions regarding the project's expected cost of debt.

Appraise the value of the project using the Adjusted Present Value (APV) approach assuming the firm raised Rs.7.5 crore debt to fund the project and kept level of the debt constant in perpetuity.

Exhibit A	Projections (Rs. in crore)				
	2002E	2003E	2004E	2005E	2006E
Sales	12.00	24.00	39.00	56.00	75.00
EBITDA	1.80	3.60	5.85	8.40	11.25
- Depreciation	-1.50	-2.25	-2.50	-2.75	-3.00
EBIT	0.30	1.35	3.35	5.65	8.25
- Tax	-0.12	-0.54	-1.34	-2.26	-3.30
PAT	0.18	0.81	2.01	3.39	4.95
Capex	2.80	2.80	2.80	2.80	2.80
Change in Working Capital	0.20	0.20	0.20	0.20	0.20

Exhibit B	Additional Assumptions
Risk-free Rate (Rf)	6.90%
Market Risk Premium	7.35%
Marginal Corporate Tax Rate	40%
Project Debt Beta (βd)	0.25
Asset beta of comparable firms	1.50

(22 marks)

2. Jagdish Bose had just finished projections for his startup company, Speedex Food Pvt Ltd. He intended to use the projections to raise money. He was certain that he would be able to convince others of the potential of his new high speed digital food technology. He was less certain, however, of what would be the free cash flows of the business.

In estimating cashflows, Jagdish thought that he would only need about Rs.10 lakh in cash to run the business. Anything above and beyond it would be considered excess cash. Because the company was just getting off the ground, there was no working capital and no fixed assets the beginning of 2018. Any working capital and net fixed assets at the end of the year would be a net investment.

Bose also thought about the future. He thought that after 2023 he could expect the company to grow at around 5% per year. He knew that any venture capitalist would totally ignore a reasonable guess of cash flows and therefore decided to only show the best case numbers (see **Exhibit 1**). He knew that he would not be taking on any debt for the foreseeable future. His company was just too risky and did not have the history to take on any debt. He wondered how being an all equity firm would affect his cost of capital. Current 10-year government bonds were yielding 7% on an effective annual rate. A friend, who was a chartered accountant, had suggested that Speedex might be able to take on debt later. Bose wondered what would happen to the value of the firm if the company were able to take on Rs.20 lakh in debt in 2021, Rs.50 lakh in 2022, and Rs.100 lakh in 2023. He did not feel that Speedex would want to increase the amount of debt beyond Rs.100 lakh even after 2023. Bose thought that any debt would carry an interest rate of 10%. He also came to know that the prevailing market risk premium and the bottom up beta were 8.2% and 1.23 respectively.

He was concerned just to have an estimate of free cash flows for the forecast horizon. His accountant friend had given certain estimates about sales, expenses, assets and liabilities (**Exhibit 1**) but he had to estimate the equity cash flows himself. He decided to start from sales and move to FCFE and he didn't need to discount these cash flows as of now. He booted up his laptop and began to stare at the screen. *Required: Appraise the cash flows for Jagdish Bose.*

Exhibit 1: Pro Forma Projections for Speedex Foods

	2017	2018	2019	2020	2021	2022	2023
Income Statement (in 000s)							
Net Sales	0	8,500	15,000	35,500	46,000	52,000	60,000
COGS	0	3,200	5,600	14,000	18,100	20,100	24,500
Gross Profit	0	5,300	9,400	21,500	27,900	31,900	35,500
SG&A	0	3,500	5,410	6,400	5,300	7,200	7,800
R&D	0	1,100	2,800	4,100	5,400	6,500	7,000
EBIT	0	700	1,190	11,000	17,200	18,200	20,700
Income Tax (35%)	0	245	417	3,850	6,020	6,370	7,245
Net earnings	0	455	774	7,150	11,180	11,830	13,455

	2017	2018	2019	2020	2021	2022	2023
Balance Sheet (in 000s)							
Assets							
Cash	0	1,000	1,000	4,793	13,907	24,699	37,042
Accounts Receivable	0	1,417	2,500	5,917	7,667	8,667	10,000
Inventories	0	400	700	1,750	2,263	2,513	3,063
Other	0	354	625	1,479	1,917	2,167	2,500
Total Current Assets	0	3,171	4,825	13,939	25,754	38,046	52,605
Net Fixed Assets	0	906	2,300	3,200	4,000	4,300	4,500
Total Assets	0	4,077	7,125	17,139	29,754	42,346	57,105
Total Liabilities & Equity							
Accounts Payable	0	533	933	2,333	3,017	3,350	4,083
Accrued Expenses	0	607	1,071	2,536	3,286	3,714	4,286
Current Liabilities	0	1,140	2,004	4,869	6,303	7,064	8,369
Equity	0	2,937	5,121	12,270	23,451	35,282	48,736
Total Liabilities & Equity	0	4,077	7,125	17,139	29,754	42,346	57,105

(14 marks)

3. Assuming that a privately held bank, Birla Bank Pvt Ltd is to be valued using relative valuation approach, list the possible comparable entities that can be picked up as comparable candidates. Explain the most suitable multiples that should be used to calculate comparable value.

(04 marks)