STELLA MARIS COLLEGE (AUTONOMOUS) CHENNAI – 600 086
(For candidates admitted during the academic year 2020-21 and thereafter)

B.COM. DEGREE EXAMINATION – APRIL 2024
HONOURS
SIXTH SEMESTER

COURSE : MAJOR – CORE
PAPER : BUSINESS VALUATION AND RESTRUCTURING
COURSE CODE : 20BH/MC/BV65
TIME : 3 HOURS **MAX. MARKS: 100**

SECTION – A

Answer all the questions: **(10 x 2 = 20)**

1. When is Adjusted Present Value used in valuing a business for acquisition?
2. Write short notes on any two types of revenue synergy.
3. State any two benefits of asset acquisition strategy of M&A.
4. What is a real option to abandon an investment?
5. List the factors that might prompt a company to sell-off a part of its business.
6. What is a Company Voluntary Arrangement (CVA)?
7. State the characteristics of an operating lease?
8. G Co wants to buy company S Co, which operates in the same industry. The statement of profit or loss for S Co for the year just ended is as follows:

	$m
PBIT	18.1
Interest expense	6.8
Taxable profit	11.3
Taxation (25%)	2.8
Profit after tax	8.5
Ordinary dividend	7.0

G Co's P/E is currently 15.3, while the industry average is 11.8.
Required: What is the earnings valuation for S Co based on the assumption that it will perform as well as G Co in terms of earnings?

9. You are evaluating the asset-based valuation of a small business. The company's balance sheet includes the following key items:
Tangible Assets:
   - Machinery and Equipment: $500,000
   - Real Estate: $1,200,000

   Current Assets:
   - Inventory: $150,000
   - Accounts Receivable: $80,000

   Liabilities:
   - Accounts Payable: $60,000
   - Long-Term Debt: $740,000

   The machinery is overvalued by $30,000 and $15,000 of the accounts receivables is not expected to be recovered. The market value of the real estate today is $1,280,000.
   Calculate the Value of equity of the business using the given information.

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10. A leasing arrangement for an asset spans five years with an annual rent of $30,000, payable at the beginning of each year. Taxes, amounting to 25%, are due in the same year as they accrue. The cost of capital is 15%.
    Required: Calculate the net present value of the leasing arrangement.

SECTION – B

Answer any five questions: **(5 x 8 = 40)**

11. Explain the issues faced in valuing high growth start-ups and how growth is estimated for them.
12. Elaborate on the cash and share exchange forms of consideration along with their advantages and disadvantages.
13. Explain in detail the three approaches to Business Valuation.
14. Discuss the issues to be considered while financing management buy-outs and management buy-ins.
15. Elucidate the reasons for corporate reconstruction of a solvent company.
16. GB Co., an earphone production company, is exploring the possibility of expanding its operations into the smartwatches sector.
    With an existing equity beta of 1.25 and a debt-to-equity ratio of 1:1, GB Co. currently stands in contrast to the smartwatch industry, where companies exhibit an average equity beta of 1.08, an asset beta of 0.875, and a typical debt-to-equity ratio of 1:3. Additionally, these smartwatch companies have an ungeared cost of equity at 12%. The debt in this context is deemed risk-free, featuring a risk-free rate of 5%, while the anticipated average return from the market is 13%.
    The new project involves acquiring machinery for smartwatch production, entailing a total cost of $100,000. Projections indicate that this machinery will yield annual net cash inflows of $35,000 over a 4-year period, with no residual value at the conclusion of the project's lifespan. Corporate tax, applicable at a rate of 30%, will be incurred in the same year, and the machinery qualifies for tax-allowable depreciation on a straight-line basis over its useful life.
    In order to finance this strategic expansion into smartwatch manufacturing, GB Co. plans to secure funds through a combination of 70% debt (with 7% bonds) and 30% equity (with fresh issue of shares).
    Required: Evaluate the investment in the smartwatches using Adjusted Present Value (APV).
17. The stock price of the shares of a certain company closes today (1st-April-2024) at ₹345 and with an option where strike price is ₹350 expiring on 1st-January-2025. There are no dividends that need to be paid till the expiry date and the risk-free annual interest rate is 9%.
    If the standard deviation of the volatility of the stock returns is 60%, calculate the price of the call option using the Black-Scholes model formula.

SECTION – C

Answer any one questions: **(1 x 20 = 20)**

18. Discuss mergers and acquisitions, the process followed for M&As and the different phases in its cycle.
19. Explain in detail the unbundling of companies. Describe the different forms of unbundling and its benefits.
20. XYZ Ltd. is exploring the possibility of investing in a state-of-the-art machine designed to enhance operational efficiency and reduce environmental impact. The prospective machine comes with a price tag of $350,000 and is expected to have a five-year operational lifespan, with an estimated residual value of $35,000 at the end of its useful life. Furthermore, a licensing fee of $20,000 is due at the start of each year fixed throughout the useful life.
    Alternatively, XYZ Ltd. is considering a leasing arrangement for the cutting-edge machine. Under this leasing option, the company would make five upfront annual lease payments of $100,000 each year, covering the licensing fee within these payments.
    If XYZ Ltd. opts to acquire the machine, it is eligible for tax-deductible depreciation on a 30% reducing balance basis.
    The company faces a 25% annual tax rate, payable in the same year itself.
    The relevant cost of capital for XYZ Ltd. is 12%.
    Required: Evaluate and determine whether XYZ Ltd. should proceed with leasing or purchasing the new machine.

21. **Case Study (Compulsory)** **(1 x 20 = 20)**
    BG Inc. is undergoing a valuation process for acquisition, and its recent statement of profit and loss is outlined below:

	$m
Revenue	450
Cost of goods sold	(250)
Gross profit	200
Operating expenses (including $20m depreciation)	(70)
Profit from operations	130
Finance costs	(40)
Profit before tax	90
Taxation	(25)
Profit after tax	**65**

Additional Information:

- The valuation timeframe spans six years of planning, followed by the perpetuity phase.
- Selling price per unit and sales volume are each expected to increase by 5% during the planning phase.
- The cost of goods sold per unit (variable in nature) is expected to increase by 7% each year.

- Operating expenses (excluding depreciation) are estimated to escalate by 4% each year.
- Tax-allowable depreciation is expected to be $5million more than book depreciation in the recently concluded year and is expected to grow by 10% during the planning phase.
- XYZ in the recent year invested $50 million in non-current assets and $15 million in working capital with these investment amounts projected to grow by 6% annually throughout the planning phase.
- Financing costs are increase by 8% each year during the planning phase.
- The applicable tax rate is 28%, payable in the year the profit has been made.
- Cash flows in the perpetuity phase are forecasted to increase by 3.5%.
- BG Inc.'s weighted average cost of capital (WACC) is 11%, with a cost of debt at 8%.
- The industry's cost of equity is 10%, the current market return is 14%, the risk-free rate is 6%, and BG Inc.'s current equity beta is 1.5.
- The total shares outstanding in BG Inc. are 50 million.

Required: Determine the equity value of BG Inc. (both total and per share) using the Free Cash Flow to Equity (FCFE) method.

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