Paper-18: BUSINESS VALUATION MANAGEMENT

Time Allowed: 3 Hours **Full Marks: 100**

The figures in the margin on the right side indicate full marks.

Answer Question No. 1 which is compulsory carrying 25 marks and any five from the rest.

Working Notes should form part of the answer.

"Whenever necessary, suitable assumptions should be made and indicated in answer by the candidates."

1. (a) State whether the following statements are true or false: [1x5=5]

(i) Market value per share is expected to be lower than the book value per share in case of profitable and growing firms.

(ii) Firms tend to be more profitable when there is higher real growth in the underlying market than when there is lower real growth.

(iii) A lower discount rate would be applied to the cash flows of the government bond.

(iv) Variable dividend feature makes the computation of share value difficult.

(v) If there are no anticipated excess earnings over normal earnings, then the goodwill of the business on the basis of super profit method will be zero.

(b) Fill in the blanks by using the words/phrases given in the brackets: [1x6=6]

(i) The ……………….. Assets Monitor of management tool for organizations that wish to track and value their ……………….. assets (tangible/intangible).

(ii) The cash flows associated with common stock are ……………. to evaluate due to the uncertainty and variability associated with them (easy/ difficult).

(iii) When a corporation's shares are owned by ……………… individuals who are associated with the firm's managements, we say that the firm is "closely held" (few/many).

(iv) Post-merger control and the ……………. are two of the most important issues in agreeing on the terms of a merger (negotiated price/calculated price).

(v) A theory that explains why the total value from the combinations resulted from a merger is a greater than the sum of the values of the component companies operating independently is known as …………………….. theory (synergy /hubris /agency).

(vi) A ………….. is essentially a container for a customer's complete experience with the offer and the company (goodwill/ brand).

(c) **In each of the questions given below one out of the four options is correct. Indicate the correct answer:** **[2×7=14]**

(i) Last year, Blanda Brothers had positive net cash flow, yet cash on the balance sheet decreased. Which of the following could explain the company's financial performance?

(a) The company issued new common stock.
(b) The company issued new long-term debt.
(c) The company sold off some of its assets.
(d) The company purchased a lot of new fixed assets.

(ii) Cowboy Curtiss' Cowboy Hat Company recently completed a merger. When valuing the combined firm after the merger, which of the following is an example of the type of common mistake that can occur?

(a) The use of market values in valuing either the new firm.
(b) The inclusion of cash flows that is incremental to the decision.
(c) The use of Curtiss' discount rate when valuing the cash flows of the entire company.
(d) The inclusion of all relevant transactions cost associated with the acquisition.

(iii) Haskell Motors' common equity on the balance sheet totals $700 million, and the company has 35 million shares of common stock outstanding. Haskell has significant growth opportunities. Its assets book value is ₹800 million, but its market value is estimated to be ₹910 million. Over time, Haskell has issued outstanding debt that has a book value of ₹100 million and a market value of ₹75 million. Which of the following statements is most correct?

(a) Haskell's book value per share is ₹20.
(b) Haskell's market value per share is probably less than ₹20.
(c) Haskell's market value per share is probably greater than ₹20.
(d) Statements a and c are correct.

(iv) Rudy's, Inc. and Blackstone, Inc. are all-equity firms. Rudy's has 1,500 shares outstanding at a market price of ₹22 a share. Blackstone has 2,500 shares outstanding at a price of ₹38 a share.

Blackstone is acquiring Rudy's for ₹36,000 in cash. What is the merger premium per share?

(a) ₹2.00
(b) ₹4.25
(c) ₹6.50
(d) ₹8.00

(v) Hayes Corporation has ₹300 million of common equity on its balance sheet and 6 million shares of common stock outstanding. The company's Market Value Added (MVA) is ₹162 million. What is the company's stock price?

(a) ₹ 23
(b) ₹ 32
(c) ₹ 50
(d) ₹ 77

(vi) Turner, Inc. has ₹4.2 million in net working capital. The firm has fixed assets with a book value of ₹48.6 million and a market value of ₹53.4 million. Martin & Sons is buying Turner, Inc. for ₹60 million in cash. The acquisition will be recorded using the purchase accounting method.

What is the amount of goodwill that Martin & Sons will record on its balance sheet as a result of this acquisition?

(a) ₹0
(b) ₹2.4 million
(c) ₹6.6 million
(d) ₹7.2 million

(vii) Casey Motors recently reported the following information:

- Net Income = ₹600,000.
- Tax rate = 40%.
- Interest expense = ₹200,000.
- Total investor-supplied operating capital employed = ₹9 million.
- After-tax cost of capital = 10%.

What is the company's EVA?

(a) -₹300,000
(b) -₹180,000
(c) ₹200,000
(d) ₹400,000

2. Following are the financial statement for RS Ltd. and RK Ltd. for the current financial year. Both the firm operate in the same industry:

Balance Sheet (₹)

Particulars	**RS Ltd.**	**RK Ltd.**
Total Current assets	14,00,000	10,00,000
Total Fixed assets (net)	10,00,000	5,00,000
	24,00,000	15,00,000
Equity capital (of ₹ 100 each)	10,00,000	8,00,000
Retained earnings	2,00,000	
14% Long-term debt	5,00,000	3,00,000
Total Current liabilities	7,00,000	4,00,000
	24,00,000	**15,00,000**

Income-Statements (₹)

Particulars	RS Ltd.	RK Ltd.
Net sales	34,50,000	17,00,000
Cost of goods sold	27,60,000	13,60,000
Gross profit	6,90,000	3,40,000
Operating expenses	2,00,000	1,00,000
Interest	70,000	42,000
Earnings before taxes	4,20,000	1,98,000
Taxes (50%)	2,10,000	99,000
Earnings after taxes (EAT)	2,10,000	99,000

Additional Information

	RS Ltd.	RK Ltd.
Number of equity shares	1,00,000	80,000
Dividend payment ratio (D/P)	40%	60%
Market price per share (MPS)	₹ 40	₹ 15

Assume that the two firms are in the process of negotiating a merger through an exchange of equity shares. You have been asked to assist in establishing equitable exchange terms, and are required to –

(i) Decompose the share prices of both the companies into EPS and P/E components, and also segregate their EPS figures into return on equity (ROE) and book value/intrinsic value per share (BVPS) components.

(ii) Estimate future EPS growth rates for each firm.

(iii) Based on expected operating synergies, RS Ltd. estimates that the intrinsic value of RK's equity share would be ₹ 20 per share on its acquisition. You are required to develop a range of justifiable equity share exchange ratios that can be offered by RS Ltd. to B Ltd's shareholders. Based on your analysis in parts (i) and (ii) would you expect the negotiated terms to be closer to the upper, or the lower exchange ratio limits? Why?

(iv) Calculate the post-merger EPS based on an exchange ratio of 0.4:1 being offered by RS Ltd. Indicate the immediate EPS accretion or dilution, if any that will occur for each group of shareholders.

(v) Based on a 0.4:1 exchange ratio, and assuming that RS's pre-merger P/E ratio will continue after the merger, estimates the post-merger market price. Show the resulting accretion or dilution in pre-merger market prices. **[4+2+3+3+3]**

3 **(a)** Why do many mergers fail?
(b) Why do Companies want to measure intellectual capital?
(c) Discuss Synergy with reference to merger. **[3+6+6]**

4. **(a)** An investor wants to buy a bullet bond of the automotive sector. He has two choices: either invests in a US corporate bond denominated in Euros or in a French corporate bond with same maturity and coupon. Are the two bonds comparable? Justify.

(b) X Ltd. Purchased 1,10,000 MT for ₹ 100 each. MT of raw material and introduced in the production process to get 85,000 MT as output. Normal wastage is 5%. In the process, company incurred the following expenses:

Direct labour	₹10,00,000
Direct Variable overhead	₹1,00,000
Direct Fixed overhead (including interest ₹36,785)	₹1,00,000

Of the above 80,000 MT was sold during the year and remaining 5000 MT remained in closing stock. Due to fall in demand in market, the selling price for the finished goods on the closing day was estimated to be ₹ 145 per MT. Calculate the value of closing stock.

(c) While evaluating a capital project, a company is considering an option to buy a business from a third party at the cost of ₹ 50 crores. It is expected that in next one year, the value of such business will increase to ₹ 60 crores with probability of 70% or decline to ₹ 45 crores with probability of 30%. The company may enter into an agreement with a party to sell the said business at ₹48 crores after one year if the company so desires. Assuming that this real option is like a European Call, with the strike price of the underlying real asset is ₹ 48 crores and the risk free interest rate is 9% p.a. Determine the value of this real option.

(d) Coca – Coal's Balance sheet for December 2014 is modified and summarized below (in millions of dollars):

	$		**$**
Cash and Near cash	1,648	Accounts Payable	3,141
Marketable Securities	159	Short- term Borrowings	4,462
Accounts receivable	1,666	Other Short – term Liabilities	1,037
Other current Assets	2,017	Current Liabilities	8,640
Current Assets	5,490	Long-term Liabilities	687
Long-term Investments	1,863	Other Long-term Liabilities	1,415
Depreciable Fixed Assets	5,486	Non-current Liabilities	2,102
Non-depreciable Fixed	199	Share Capital (Paid-in)	3,060
Assets	2,016	Retained Earnings	5,343
Accumulated Depreciation	5,532	Shareholders Equity	8,403
Net Fixed Assets	8,123	Total Liabilities & Equity	19,145
Other Assets	19,145		
Total Assets			

Required:

Coca-Cola's most valuable asset is its brand name. Where in the balance sheet do you see its value? Is there any way to adjust the balance sheet to reflect the value of this asset? **[3+4+5+3]**

5. (a) What is Price-Book Value Ratio? What are the two measurement issues that you have to confront in computing this multiple? How return on equity and cost of equity can influence this ratio?

(b) Your client is holding the following securities:

Particulars of securities Equity share	Cost (₹)	Dividends (₹)	Market Price (₹)	Beta
Co. Alpha	10,000	1000	10200	0.8
Co. Beta	12,000	1000	12500	0.7
Co. Gama	18,000	1000	24000	0.5
Govt. Bonds	36,000	5400	34300	1.0

Assuming a risk free rate of 14%, calculate

(i) Expected rate of return in each, using the Capital Asset Pricing Model (CAPM).

(ii) Average return of the portfolio. **[9+(4+2)]**

6. (a) "Jaggi & Lau suggested that a proper valuation of human resource is not possible unless the contribution of individuals as a group is taken into consideration." Comment.

(b) Calculate the price of 3 month ABC futures, if ABC (FV ₹10) quotes ₹260 on NSE, and the 3 month futures prices quotes at ₹266, and the one month borrowing rate is given as 15% and the expected annual dividend yield is 25% p.a. payable before expiry.

(c) You are given following information about Sandeep Ltd.:

(i) Beta for the year 2013 – 14 1.05

(ii) Risk free Rate 12%

(iii) Long Range Market rate (based on BSE Sensex) 15.14%%

(iv) Extracts from the liabilities side of balance sheet as at 31st March, 2014

	₹
Equity	29,160
Reserves and surplus	43,740
Shareholder's fund	72,900
Loan funds	8,100
Total funds (long – term)	81,000

(v) Profit after tax ₹20,394.16 lakhs

(vi) Interest deducted from profit ₹487.00 lakhs

(viii) Effective tax rate (i.e. (Provision for Tax/PBT) x 100) 24.45%

Calculate Economic Value Added of Sandeep Ltd. as on 31st March 2014. **[7+3+5]**

7. (a) During the financial year 2013-2014, ITC Ltd. had the following transactions:

(i) On 1st April 2013, ITC Ltd. purchased new asset of Fine Ltd. for ₹ 7,20,000. The fair value of Fine Ltd.'s identifiable net assets was ₹ 3,44,000. ITC Ltd. is of the view that due to popularity of Fine Ltd.'s products, the life of resulting goodwill is unlimited.

(ii) On May 2013, ITC Ltd., purchased a franchise to operate boating service from the State Government for ₹1,20,000 and at an annual fee of 1% of boating revenues. The franchise expires after 5 years. Boating revenues were ₹ 40,000 during financial year 2013-2014. ITC Ltd. projects future revenue of ₹80,000 in 2014-2015 and ₹1,20,000 per annum for 3 years thereafter.

(iii) On 5th July 2013, ITC Ltd. was granted a patent that had been applied for by Fine Ltd. During 2013-14, ITC Ltd. incurred legal costs of ₹1,02,000 to register the patent and an additional ₹ 1,70,000 to successfully prosecute a patent infringement suit against a competitor. ITC Ltd. expects the patents economic life to be 10 years. ITC Ltd. follows an accounting policy to amortize all intangibles on straight line basis over the maximum period permitted by accounting standard taking a full year amortization in the year of acquisition.

Prepare:

A. A schedule showing the intangible section in ITC Ltd. balance sheet at 31st March 2014.

B. A schedule showing the related expenses that would appear in the Statement of Profit and Loss of ITC Ltd. for 2013-2014.

(b) Why do you value swaps?

(c) The managing director of a Company decides that his Company will not pay any dividends till he survives. His current life expectancy is 20 years. After that time it is expected that the Company could pay dividends of ₹30 per share indefinitely. At present, the firm could afford to pay ₹5 per share forever. The required rate of return of this Company's shareholders is 10 per cent. What is the current value of the share?

[(3+7)+2+3]

8. The Balance Sheet of Technostyle Ltd as at 31st March is given below-

Liabilities	₹	₹	**Assets**	₹	₹
Share Capital:			Fixed Assets:		
5,000 Equity Shares of ₹100		5,00,000	Land & Buildings at Cost		3,20,000
3,000 12% Preference Shares of ₹100		3,00,000	Plant & Machinery	9,40,000	
			(-) Acc. Depreciation	4,80,000	4,60,000
Reserves & Surplus:					
General Reserve		3,00,000	Investments:		
Profit & Loss A/c			6% Govt. Securities – at Cost		1,60,000
- Opening Balance (beginning)	1,20,000		Current Assets:		
--- Current Year Profit	4,80,000		Book Debts		3,80,000
	6,00,000		Stock in Trade		4,50,000
--- Provision for Tax	(2,40,000)	3,60,000	Cash and Bank Balances		80,000
			Preliminary Expenses		60,000
Current Liabilities & provisions:					
Trade Creditors		2,10,000			
Provision for Taxation		2,40,000			
		19,10,000			**19,10,000**

The face value of the Government Securities is ₹2,00,000. The current year profit reported in the Balance Sheet includes income from such Government Securities. Stock in Trade reported in Balance Sheet at 90% of Market Value.

The shares of the Company are not quoted on the Stock Exchange. A provision exists in the Articles of Association of the Company that in cases where any existing shareholder desires to transfer his holdings to another person, it should be done at a fair market value to be fixed by the Statutory Auditor of the Company. One of the shareholders desiring to transfer his holdings to X, an outsider, refers the matter of determination of the fair market value of shares to you, as the Statutory Auditor.

Indicate how you will proceed to determine such a value, based on the following additional information:

(i) The Company's prospects in the near future appear good.

(ii) Land value is understated by ₹4,00,000. Buildings have suffered a further depreciation of ₹2,00,000.

(iii) Market Value of Plant and Machinery is ₹5,40,000.

(iv) Companies doing similar business as that of Technostyle Ltd show a market return of 12% on Capital Employed.

(v) Profits over the prior 3 years period have been increasing at the rate of ₹50,000 per annum.

(vi) It has always been the Company's practice to value stock at market prices. **[15]**