Paper-18: BUSINESS VALUATION MANAGEMENT

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

Working Notes should form part of the answer.

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

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.

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

(i) Land and building is an example of financial asset.
(ii) Variable dividend feature makes the calculation of share value difficult.
(iii) Stock dividends and stock splits may increase the stock price but not the value of business.
(iv) In constant growth model, the value of equity share is sensitive to growth rates.
(v) A stock with low price-earnings ratio shows that it is undervalued and may earn excess return.

(b) Fill in the blanks by using the words/phrases given in the brackets: **[1x10=10]**

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

(ii) A ……………….. is a contractual agreement under which one party grants the other party the right to sell certain products or services or to use certain trade names or trademarks.(licence/franchise)

(iii) ……………….. is a research the purpose of which in mergers and acquisitions is to support valuation process, arm the negotiator, test the accuracy of representations and warranties contained in the merger agreement, fulfill disclosure requirements and inform the planners of post-merger integration.(Due diligence/Certification)

(iv) In a debt for equity swap, a firm replacing equity with debt ……………….. its leverage ratio.(increases/ decreases)

(v) Operating department in manufacturing is a production department that adds value to a product or service that is observable by the ……………….. (production manager/customer).

(vi) Assets held as stock in trade are not ……………… (investments/disinvestments).

(vii) ………………… is a Government granted right to authors, sculptures, painters for their creations. (Patent/Copy right)

(viii) Networth of a firm as per Balance Sheet is called its ……………………… (book value, market value).

(ix) If expected rate of return is more than required rate, stock should be ………………… (bought,sold).

(x) In a conglomerate merger, the concerned companies are in ………………. lines of business.(related, unrelated).

(c) **In each of the questions given below one out of the four options is correct. Indicate the correct answer:** **[2×5=10]**

(i) The price of a company's share is 1100 and the value of growth opportunities is ₹ 25. The company's capitalisation rate is 20%. The E/P Ratio is
(a) 15%
(b) 11.25%
(c) 20%
(d) 5%

(ii) A firm has PAT of ₹ 33.6 lakhs with extraordinary income of ₹6 lakhs. Cost of capital is 20% and the applicable tax rate is 40%. The value of the firm is
(a) ₹ 250 lakhs
(b) ₹ 150 lakhs
(c) ₹ 180 lakhs
(d) ₹ 168 lakhs

(iii) FCFF at the end of last year of explicit forecast period is ₹10 lakhs. If cost of capital is 15% and steady growth rate is 5%, the terminal value of the firm is
(a) ₹ 100 lakhs
(b) ₹ 10 lakhs
(c) ₹ 10.5 lakhs
(d) ₹ 105 lakhs

(iv) A share has a current market price of ₹30. One month call is available at a strike price of ₹29. It is known that after 1 month, the share price may be ₹32 or ₹ 28 If risk free rate is 8%, the value of the call is
(a) ₹3
(b) Nil
(c) ₹1
(d) ₹1.67

(v) The number of shares outstanding as on 31.03.09 for a company is 10 lakhs and it has reported net profit of ₹20 lakhs for the year 2008-09. The company decides to repurchase 20% shares at ₹32 per share. The P/E ratio remains unchanged after repurchase. The post-byeback price/share is
(a) ₹42
(b) ₹32
(c) ₹40
(d) ₹25.6

Q. 2. (a) The following data relates to Samurai Ltd. profit & loss data

	Year 2012 ₹ in lakhs	Year 2013 ₹ in lakhs
Turnover	19900	23600
Pre-tax accounting Profit	4200	5300
Taxation	1260	1600
Profit after tax	2940	3700
Dividends	1000	1200
Retained Earnings	1940	2500

Balance Sheet Data

	Year 2012 ₹ in lakhs	Year 2013 ₹ in lakhs
Fixed Assets	7400	9600
Net Current Assets	8000	10000
	15400	19600
Finance by shareholders funds	11900	14400
Medium and long term Bank loan	3500	5200
	15400	19600

Pre-tax accounting profit is taken after deducting the economic depreciation of the company's fixed Assets (also the depreciation used for tax purposes)

Additional Information

- Economic depreciation was ₹1900 lakh in 2012 and ₹2100 lakh in 2013.
- Interest expenses were ₹260 lakh in 2012 and ₹360 lakh in 2013.
- Other non cash expenses were ₹640 lakh in 2012 and ₹720 lakh in 2013.
- The tax rate in 2012 and 2013 was 30%.
- Samurai Ltd. has non-capitalized leases valued at ₹700 lakh in each year 2012 – 2013.
- The company's pre-tax cost of debt was estimated as 7% in 2012 and 8% in 2013.
- The company's cost of equity was estimated as 15% in 2012 and 17% in 2013.
- The target capital structure is 80% equity and 20% debt.
- Balance sheet capital employed at the end of 2011 was ₹13900 lakh.

Estimate the economic value added for Samurai Ltd. for 2012 and 2013.

(b) A company belongs to a risk class for which the appropriate capitalization rate is 10 per cent. It currently has outstanding 25000 shares selling at ₹100 each. The firm is contemplating the declaration of dividend of ₹5 per cent share at the end of the current financial year. The company expected to have a net income of ₹2.5 lakhs and has a proposal for making a new investment of ₹5 lakhs.

Show that under the Modigliani and Millar assumptions, the payment of dividend does not affect the value of the firm. **[7+8]**

Q. 3. (a) SUN Ltd. acquire 40% of MOON Ltd's shares on April 2, 2013, the price paid was ₹ 2,80,000. MOON Ltd's shareholder equity shares are as follows:

Equity Shares (Paid-up)	1,00,000
Share Premium	3,00,000
Retained Earning	1,00,000
	5,00,000

Further MOON Ltd. reported a net income of ₹ 60,000 and paid dividends of ₹ 20,000. SUN Ltd. has subsidiary on 31.03.2011. Calculate the amount at which the investment in MOON Ltd. should be shown in the consolidated Balance Sheet of SUN Ltd as on 31.03.2014.

(b) State with reference to accounting standard, how you will value the inventories in the following cases:

(i) In a production process, normal waste is 5% of input 10,000 MT of input were put in process resulting in a wastage of 600 M.T. cost per MT of input is ₹2000. The entire quantity of waste is on stock at the end of the year.

(ii) Per Kg. of finished goods consisted of :

Material Cost	₹50 per Kg.
Direct labour cost	₹10 per Kg.
Direct variable production overhead	₹5 per Kg.

Fixed production charges for the year on normal capacity of 50,000 Kgs. are ₹5,00,000. 1,000 Kgs of finished gods are on stock at the year end.

(c) NIZAM Ltd. has substantial cash flow and until the surplus funds are utilized to meet the future capital expenditure, likely to happen after several months, are invested in a portfolio of short-term investments, details for which are given below:

Investment	No. of Shares	Beta	Market Price per share	Expected yield
A	8,000	1.16	4.29	19.50%
B	10,000	2.28	2.92	24.00%
C	11,200	0.90	2.17	17.50%
D	14,500	1.50	3.14	24.00%

The current Market Return is 20% and the Risk Free Rate is 12%

Required to:

(i) Calculate the Risk of NIZAM's short-term investment portfolio relative to that of the market;

(ii) Whether NIZAM should change the composition of its portfolio.

(d) A company has purchased plant and machinery in the year 2010-11 for ₹90 lakhs. A balance of ₹10 lakhs is still payable to the supplier for the same. The suppler waived off the balance amount during the financial year 2013-14. The company treated it as income and credited to profit and loss account during 2013-14. Whether accounting treatment of the company is correct. If not, state with reasons. **[4+(2+3)+(2+2)+2]**

Q. 4. (a) A Ltd. is considering the proposal to acquire B Ltd. and their financial information is given below:-

Particulars	A Ltd.	B Ltd.
No. of equity shares	10,00,000	6,00,000
Market price per share (₹)	30	18
Market Capitalisation (₹)	3,00,00,000	1,08,00,000

A Ltd. intends to pay ₹1,40,00,000 in cash for B Ltd. if B Ltd's market price reflects only its value as a separate entity. Calculate the cast of merger.

(i) When merger is financed by cash

(ii) When merger is financed by stock and A Ltd. agrees to exchange 5,00,000 shares in exchange of shares in B Ltd.

(b) Calculate the price of 3 month PQR futures, if PQR (FV ₹10) quotes ₹ 300 on NSE, and the 3 month futures prices quotes at ₹ 306, and the one month borrowing rate is given as 15% and the expected annual dividend yield is 25% p.a. payable before expiry.

(c) 2COMS Consulting Ltd. is a firm that specializes in offering management consulting services to software companies.

2COMS Ltd. reported operating income (EBIT) of ₹306 lakh and net income of ₹135 lakh in the most recent year. however, the firms expenses include the cost of recruiting new consultants and the cost of training which amounts to ₹60 lakh. A consultant who joins 2COMS Consulting Ltd. stays with the firm, on an average, for 4 years. Recruitment and training expenses are amortizable over 4 years immediately following the year in which they are incurred. Over the past 4 years the expenses are:

Year	Training, Recruitment Expenses (₹in lakh)
Current	60
Year 1	48
Year 2	45
Year 3	36
Year 4	30

Assuming a linear amortization schedule (over 4 years)

Estimate:

(i) The value of human capital asset and the amount of training and recruitment expenses amortization for this year.

(ii) The adjustment to operating income. **[(2+5)+(4+2)+2]**

Q. 5. (a) Following information's are available in respect of Bengal Aerotroplis Project Ltd. which is expected to grow at a higher rate for 4 years after which growth rate will stabilize at a lower level:

Base year information:

Particulars	₹in lakhs
Revenue	20,000
EBIT	3,000
Capital Expenditure	2,800
Depreciation	2,000

Information for high growth and stable growth period are as follows:

Particulars	High Growth	Stable Growth
Growth in Revenue & EBIT	20%	10%
Growth in capital expenditure and depreciation	20%	Capital expenditure are offset by depreciation
Risk free rate	10%	9%
Equity beta	1.15	1
Market risk premium	6%	5%
Pre tax cost of debt	13%	12.86%
Debt equity ratio	1:1	2:3

For all time, working capital is 30% of revenue and corporate tax rate is 35%.

What is the value of the firm?

(b) The following financial share date pertaining to ALPHA LTD on IT company are made valuable to you:

Year ended March 31st	2014	2013	2012
EBIT (₹)	696.03	325.65	155.86
Non-branded Income (₹)	53.43	35.23	3.46
Inflation compound factor @ 8%	1.000	1.087	1.181
Remuneration of Capital	5% of average Capital employed		
Average Capital Employed (₹)	1200.00		
Corporate Tax Rate	35%		
Capitalization Factor	14%		

You are required to calculate the Brand Value for ALPHA Ltd. **[10+5]**

Q. 6. (a) X Ltd. expects that a plant has become useless which is appearing in the books at ₹40 lakhs gross value. The company charges SLM – depreciation on a period of 10 years estimated life and estimated scrap value of 3%. At the end of the 7th year the plant has been assessed as useless. Its estimated net realizable value is ₹12,40,000. Determine the loss/gain on retirement of the fixed assets.

(b) An unquoted long term investment is carried in the books at a cost of ₹4 lakhs. The published accounts of the unlisted company received in May 2013 showed that the company was incurring cash losses with declining market share and the long term investment may not fetch more than ₹ 40,000. How would you deal with this in financial statements.

(c) An equipment is leased for 3 years and its useful life is 5 years. Both the cost and the fair market value of the equipment are ₹6,00,000. The amount will be paid in 3 installments and a the termination of lease, lessor will get back the equipment. The unguaranteed residual value at the end of 3 year is ₹80,000. The (internal rate of return) IRR of the investment is 10%. The present value of annuity factor of Re. 1 due at the end of 3rd year at 10% IRR is 2.4868. the present value of Re. I due at the end of 3rd year at 10% rate of interest is 0.7513.

(i) State with reason whether the lease constitutes finance lease.
(ii) Calculate unearned finance income.

(d) M/s. Gopi Industries is planning to issue a bond series on the following terms –

Face value ₹100

Terms of maturity 10 years

Yearly coupon rate

Years	Rate
1-4	8%
5-8	9%
9-10	13%

The current market rate of similar bonds is 14% per annum. The company proposes to price the issue in such a manner that is can yield 15% compounded rate of return to the investors. The company also proposes to redeem the bonds at 5% premium on maturity. You are required to determine the issue price of the bonds.

Year	1	2	3	4	5	6	7	8	9	10
P.V. factor of ₹1 @ 15%	0.8695	0.7561	0.6575	0.5717	0.4971	0.4323	0.3759	0.3269	0.2842	0.2471

[3+3+(2+3)+4]

Q. 7. (a) How would you value a real estate? What are the different levels of market efficiency?

(b) Discuss various aspects of computation of Economic Value Added and its application in business planning and valuation. When the EVA will increase?

[(4+3)+(5+3)]

Q. 8. The following is the extract from the Balance Sheets of X Ltd.:

Liabilities	31.03.2013 ₹ lakhs	31.03.2014 ₹ lakhs	Assets	31.03.2013 ₹ lakhs	31.03.2014 ₹ lakhs
Share capital	5000	5000	Fixed Assets	5500	6500
General reserve	4000	4250	10% investment	2500	2500
Profit & Loss A/c	600	900	Stock	2600	3000
18% term loan	1800	1650	Debtors	1700	1100
Sundry Creditors	350	450	Cash at bank	460	450
Provision for tax	110	130	Fictitious Assets	100	80
Proposed dividend	1000	1250			
Total	12860	13630	Total	12860	13630

Additional information:

(i) Replacement values of fixed assets were ₹11000 lakhs on 31.03.2013 and ₹12500 lakhs on 31.03.2014 respectively.

(ii) Rate of depreciation adopted on fixed assets was 5% p.a.

(iii) 50% of the stock is to be valued at 120% of its book value.

(iv) 50% of investments were trade investments.

(v) Debtors on 31st March, 2014 included foreign debtors of $ 350000 recorded in the books at ₹45 per U.S. Dallar. The closing exchange rate was $ 1 = ₹49.

(vi) Creditors on 31st march, 2014 included foreign creditors of $ 600000 recorded in the books of $ 1 = ₹43. The closing exchange rate was $ 1 = ₹49.

(vii) Profits for the year 2013-14 included ₹600 lakhs of government subsidy which was not likely to recur.

(viii) Future maintainable profits (pre-tax) are likely to be higher by 10%.

(ix) Tax rate during 2013-2014 was 50%, effective future tax rate will be 45%.

(x) Normal rate of return expected is 13%

One of the directors of the company Sudip fears that the company does not enjoy a good will in the prevalent market circumstances.

Critically examine this and establish whether X Co. has or has not any goodwill. If your answer were positive on the existence of goodwill, show the leverage effect it has on the company's result.

Industry average return was 10% on long term funds and 13% on equity funds. **[15]**