

Time Allowed : 3 Hours

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 each carrying

Please: (1) Write answers to all Parts of a question together

(2) Open a new page for answer to a new question

(3) Do not attempt more than the requisite number of questions

(4) Tick mark the front page of the answer book to indicate the question attempted.

1. (a) State whether the following statements are True or False:

1x5=5

- (i) For calculating the value of an [equity share](#) by yield method, it is not essential to know capital employed. (0)
- (ii) 'Comparable Companies Approach' to valuation is same as 'Relative Valuation Approach' (0)
- (iii) The return estimated from Capital [Asset Pricing Model](#) provides the weighted average cost of capital (WACC) of a company. (0)
- (iv) Industrial groups are inherently less conservative than investors in allocating resources. (0)
- (v) Value gap is the difference between the synergy value and purchase price. (0)

(b) Fill in the blanks in the following sentences by using the appropriate words/phrases given in brackets:

1x5=5

- (i) A _____ is essentially a container for a customer's complete experience with the offer and the company, (good will/brand). (0)
- (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 trade marks. (licence/franchise) (0)
- (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). (0)
- (iv) In a debt for [equity](#) swap, a firm replacing equity with debt _____ its [leverage ratio](#). (Increases/decreases) (0)
- (v) Operating department in manufacturing firms is a production department that adds value to a product or service that is observable by the _____. (production manager/customer). (0)

(c) In each of the questions given with four answer below one out of the four is correct. Indicate the correct answer (1 mark each).

1x5=5

- (i) An increase in a firm's expected growth rate would normally cause the firm's required rate of return to
 - (A) Increase;
 - (B) Decrease;
 - (C) Fluctuate;
 - (D) Possibly increase, possibly decrease, or possibly remain unchanged.(0)

- (ii) If the expected rate of return on a stock exceeds the required rate,
 (A) The stock is experiencing supernormal growth.
 (B) The stock should be sold.
 (C) The company is probably not trying to maximize price per share.
 (D) The stock is a good buy.
- (iii) Which of the following statements is most correct?
 (A) The constant growth model takes into consideration the capital gains earned on a stock.
 (B) It is appropriate to use the constant growth model to estimate stock value even if the growth rate never becomes constant.
 (C) Two firms with the same dividend and growth rate must also have the same stock price.
 (D) Statements A and C are correct.
- (iv) Which of the following best describes free cash flow?
 (A) Free cash flow is the amount of cash flow available for distribution to all investors after all necessary investments in operating capital have been made.
 (B) Free cash flow is the amount of cash flow available for distribution to shareholders after all necessary investments in operating capital have been made.
 (C) Free cash flow is the net change in the cash account on the balance sheet.
 (D) Free cash flow is equal to net income plus depreciation.
- (v) In defending against a hostile takeover, the strategy that involves the target firm creating securities that give their holder certain rights that become effective when a takeover is attempted is called the _____ strategy.
 (A) Shark repellent;
 (B) Greenmail;
 (C) Poison pill;
 (D) Golden parachute.

(d) Each question has one correct answer. Identify the same and support your answer with workings.

2x5=10

- (i) The price of a company's share is Rs.100 and the value of growth opportunities is Rs.25. The company's capitalization rate is 20%. The E/P Ratio is
 (A) 15%
 (B) 11.25%
 (C) 20%
 (D) 5%
- (ii) A firm has PAT of Rs.33.6 lakhs with extraordinary income of Rs.6 lakhs. Cost of capital is 20% and the applicable tax rate is 40%. The value of the firm is
 (A) Rs.250 lakhs
 (B) Rs.150 lakhs
 (C) Rs.180 lakhs
 (D) Rs.168 lakhs.
- (iii) FCFF at the end of last year of explicit forecast period is Rs.10 lakhs. If cost of capital is 15% and steady growth rate is 5%, the terminal value of the firm is
 (A) Rs.100 lakhs
 (B) Rs.10 lakhs
 (C) Rs.10.5 lakhs
 (D) Rs.105 lakhs.

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

- (v) The number of shares outstanding as on 31.03.2009 for a company is 10 lakhs and it has reported net profit of Rs.20 lakhs for the year 2008–09. The company decides to repurchase 20% shares at Rs.32 per share. The P/E ratio remains unchanged after repurchase. The post–byeback price/share is
 (A) Rs.42
 (B) Rs.32
 (C) Rs.40
 (D) Rs.25.6.

2. The following table gives accounting data from the 2008 annual reports of six companies in the IT sector. The market of equity of five of the firms is also given. From these data, estimate a value for Softech Solutions Ltd. Softech Solutions had a book value of Rs.1349 millions in 2008.

Company	Market value of equity (Rs. Million)	Price/Book ratio	Revenue (Rs. Million)	R & D Expenses (Rs. Million)	Net Income (Rs. Million)
Infotech Ltd.	8096.71	5.6	1571.0	307.0	406.0
Wiprotech Ltd.	1379.00	3.6	152.0	101.0	15.0
Satyatech Ltd.	2233.00	4.6	413.0	158.0	28.0
Relitech Ltd.	925.00	2.5	138.0	109.0	–7.0
Goldtech Ltd.	588.53	4.5	151.0	81.0	–34.0
Softech Solution Ltd.	?	?	795.4	314.3	124.4

3. (a) Describe the advantages and disadvantages associated with holding companies. What is pyramiding and what are its consequences?
 (b) It is common to compare firms on their price to EBITA ratios. What are the merits and demerits of using this measure?
4. (a) Briefly explain the various steps in the valuation of a Brand.
 (b) What is Human Resource Accounting? What are its benefits? Briefly discuss the two main methods of its measurement.
5. (a) Why do many mergers fail?
 (b) Why do companies want to measure Intellectual Capital?
 (c) What factors are considered for selection of a target in a business acquisition strategy?

6. Consider two firms that operate independently and have following characteristics:

	Ganga Ltd.	Yamuna Ltd.
	(Rs. In Lakhs)	
Revenues	6000	3000
COGS	3500	1800
EBIT	2500	1200
Expected Growth rate	5%	7%
Cost of Capital	8%	9%

Both firms are in steady state with capital spending offset by depreciation. Both firms have an effective tax rate of 40% and are financed only by equity. Consider the following two scenarios:
 Scenario – I: Assume that combining the two firms will create economies of scale that will reduce the COGS to 50% of Revenues.
 Scenario – II: Assume that as a consequence of the merger, the combined firm is expected to increase its future growth to 7% while COGS will be 60%.
 It is given that Scenario I & II are mutually exclusive.
 You are required to:

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- Compute the values of both the firms as separate entities.
- Compute the value of both the firms together if there were absolutely no synergy at all from the merger.
- Compute the value of cost of capital and the expected growth rate.
- Computer the value of synergy in
 - Scenario I
 - Scenario II.

7. (a) Coca-Cola's Balance Sheet for December 2008 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 Shor-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 Assets	199	<u>Share Capital</u> (Paid-in)	3,060
Accumulated Depreciation	2,016	Retained Earnings	5,343
Net Fixed Assets	5,532	Shareholders Equity	8,403
Other Assets	8,123	Total Liabilities & Equity	19,145
Total Assets	19,145		

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?

- Ronix Computers has a well-earned reputation for earning a high return on capital. The firm had a return on capital of 100%, on capital invested of Rs.1,500 crore, in 2008-09. Assume that you have estimated the value of the research asset to be Rs.1,000 crore. In addition, the R & D expense this year is Rs.250 crore, and the amortization of the research asset is Rs.150 crore.
 Required:
 Re-estimate Ronix Computer's return on capital.
- Every investor in the capital asset pricing model owns a combination of the market portfolio and a riskless asset.

Assume that the standard deviation of the market portfolio is 305 and that the expected return on the portfolio is 15%. What proportion of the following investor's wealth would you suggest investing in the market portfolio and what proportion in the riskless asset? (The riskless asset has an expected return of 5%).

- (i) An investor who desires a portfolio with no standard deviation;
- (ii) An investor who desires a portfolio with a standard deviation of 15%;
- (iii) An investor who desires a portfolio with a standard deviation of 30%;
- (iv) An investor who desires a portfolio with a standard deviation of 45%;
- (v) An investor who desires a portfolio with an expected return of 12%.

8. Builders Ltd. a manufacturer of building products, mainly supplies the wholesale trade. It has recently suffered falling demand due to economic recession, and thus has spare capacity. It now perceives an opportunity to produce designer ceramic tiles for the home improvement market. It has already paid Rs.50 lakh for development expenditure, market research and a feasibility study. The initial analysis reveals scope for selling 1,50,000 boxes per annum over a five-year period at a price of Rs.200 per box. Estimated operating costs, largely based on experience, are as;

7+3+3+2

(0)

Cost per box of tiles (at today's prices): Rs.

Material cost	80
Direct labour	20
Variable overhead	15
Fixed overhead (allocated)	15
Distribution, etc.	20

Production can take place in existing facilities although initial re – design and set-up costs would be Rs.2 crore after allowing for all relevant tax reliefs. Returns from the project would be taxed at 33%.

Builder's shareholders require a nominal return of 14% per annum after tax, which includes allowance for generally-expected inflation of 5.5% per annum. It can be assumed that all operating cash flows occur at year ends.

You are required to:

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- (a) Assess the financial desirability of this venture in real terms, finding the Net Present Value offered by the project.
- (b) Determine the value of

(i) Price

(ii) Volume

At which the project's NPV becomes zero.

(c) Discuss your results, suggesting appropriate management action.

Note : You are given the following annuity factors in case you need for your working:

Annuity factor at 14% for 5 years = 3.433

Annuity factor at 8% for 5 years = 3.993.