

FREE OF COST

I.S.B.N : 81-7666-307-7

## SCANNER'S APPENDIX

ICWA Stage - IV

December 2005

### Paper - 17

### Management Accounting — Decision Making

#### Chapter - 2 : Basic Concepts in Decision Making

**2005 - Dec [2]** X Ltd. has been offered a contract to manufacture six special machines for the Government. Manufacture would take a total of three years at the rate of two machines per year. Payment would be in two instalments, Rs.3,50,000 at the start of manufacture and another Rs. 3,50,000 upon completion.

The company is now evaluating the contract to see if it is worth while undertaking and its management accounting department has produced the following estimates about the resources required to produce the special machines:

(a) Materials:

Types of material	Quantity per m/c tons	Amount in stock now tons	Original cost of stock per ton Rs.	Current purchase price per ton Rs.	Current realizable value per ton Rs.
Copper	20	60	700	1000	800
Radium	10	20	500	750	See below

Copper is used regularly by the company on many contracts. Radium is used rarely and if the existing stock is not applied to this contract it will have to be disposed immediately at a net cost of Rs. 100 per ton. Materials required for the contract must be purchased and paid for annually in advance. Replacement cost of copper and radium and the realizable value of copper are expected to increase at an annual compound rate of 20%.

(b) Labour:

Each of the six machines will require 3,000 hours of skilled electronic engineering and 5,000 hours of unskilled labour. Current wage rates are Rs. 4 per hour for skilled electronic staff and Rs. 3/- per hour for unskilled labour.

X Ltd. expects to suffer a shortage of skilled staff during the first year so that acceptance of the contract would make it necessary for the firm to give up 'other work' on which a contribution of Rs. 7 per hour would be earned (the 'other work' would require no unskilled labour).

In the contract's first year only, the company expects to have 20,000 surplus unskilled labour hours. The company has an agreement with the in-house trade union whereby it lays off employees for whom there is no work and pays them two-thirds of their normal wages during the lay-off period. All wage rates are expected to increase at an annual compound rate of 15%.

## (c) Overheads:

Overhead costs are currently allocated to contracts at a rate of Rs. 14 per skilled labour hour calculated as follows:

	Rs.
Fixed overhead (including equipment depreciation of Rs. 5)	11
Variable overhead	<u>3</u>
	<u>14</u>

Special equipment will be required to undertake this contract and will be purchased at Rs. 2,00,000 payable immediately. It will be sold once the contract is completed for Rs. 50,000. Both fixed and variable overheads are expected to increase in line with the Retail Price Index.

The special equipment will be financed with the first contract instalment paid by Government.

The company believes that a return of 20% would be acceptable for the project. The Retail Price Index is expected to increase by 15% per year over the life of the contract.

All current prices will hold for the next 12 months, before increasing in line with inflation.

Therefore material cost for the second years production will be 20% higher than the current market prices. Analyse and comment whether the project can be acceptable. Ignore Tax. (16 marks)

**Chapter - 5 : Divisional Performance**

**2005 - Dec [4]** The following data have been collected relating to W division of the MACRO group.

## Data for W Division

		Rs.
Sales Revenue	— external customers	6,00,000
	— internal transfers	3,50,000
Variable operating costs	— labour	95,000
	— materials	1,60,000
	— overheads	42,500
Fixed operating costs	— controllable by division	78,000
	— controllable centrally	41,000
Divisional management cost	— controllable centrally	26,500
Fixed Assets (at cost)	— divisional purchases	4,50,000
	— central purchases	2,50,000
Total central administration and management cost (These are apportioned on the basis of sales revenue Which was Rs. 52 lakhs for the group as a whole)		6,84,210

The group's weighted average cost of capital is estimated at 15% and it is the group policy to calculate depreciation on a straight line basis at 25% and to impute interest on a gross investment basis.

Prepare from the above data, a divisional performance statement on

- (i) Profit centre approach (8 marks)
- (ii) Investment centre approach (8 marks)

**2005 - Dec [8]** A corporate body uses ROCE (return on capital employed) as the performance measure for each of its divisions. The ROCE is calculated by dividing the trading profit for a year by the book value of net assets at the year end. In the net asset computation, cash is excluded, as the divisions use a common bank account controlled by the corporate head quarter.

For the year ended 31-12-2005 division D was given a target ROCE of 18%, with executives being offered salary bonuses if the target is met. On 30th November, 2005 D's divisional manager receives a forecast that profit for 2005 will be Rs. 17,50,000 and the net assets employed at the end of the year will be Rs. 1,00,00,000. This means that the performance will fall short of the target ROCE by 0.5 per cent. The divisional manager gets worried and at once circulates a memorandum to his executives inviting proposals to deal with the situation.

The divisional manager has now before him four proposals made by his four executives:

Proposal 1, made by the accountant, suggests that payment of Rs. 6,00,000 trade debt owed to a supplier (due on 22 December, 2005) be deferred until 1 January, 2006; this will result in a Rs. 17,000 default penalty becoming immediately due,

Proposal 2, made by the internal auditor, that a local depot be closed allowing immediate sale for Rs. 12,50,000 of premises that carries a book value of Rs. 11,25,000; this would result in Rs. 3,74,000 immediate closure cost and future reduction in profits of Rs. 1,90,000 per year over the next twelve years.

Proposal 3, from the production manager, that Rs. 12,00,000 be invested in new equipment that will result in cost savings of Rs. 2,51,000 per year over the next twelve years.

Proposal 4, from the sales manager that Rs. 20,000 additional production expenses be incurred to advance completion of an order to 29 December, 2005 from its previous scheduled date of 3 January, 2006. This would allow the customer to be invoiced in December thereby boosting 2005 profits by Rs. 90,000 (before allowing for additional expenses), but not accelerating payment by the customer which will be made on 1 February, 2006 in any event  
Required:

Consider the merits of each of the above proposals from the point of view of division D's immediate problem and the long-term position of the corporate body.

[An extract from the Table of cumulative present value of Re.1, using the formula:  $\frac{1 - (1+r)^{-n}}{r}$ , is given for quick reference:

Year end (n)	17%	18%	19%	20%
12	4.988	4.793	4.611	4.439]

(4×4 = 16 marks)

#### Chapter - 11 : Simulation Techniques

**2005 - Dec [7]** (a) What is simulation? What are the steps in simulation process? (8 marks)

#### Chapter - 12 : PERT & CPM

**2005 - Dec [7]** (b) A project consist of following activities and the relevant information are provided as under:

Activity	Estimated duration (days)		
	Optimistic	Most likely	Pessimistic
(1-2)	1	2	3
(1-3)	1	4	7
(1-4)	2	2	8
(2-5)	1	1	1
(3-5)	3	6	9
(4-6)	2	5	8
(5-6)	3	7	11
(6-7)	1	2	3

You are required to draw the PERT network and find out the expected project completion time of the project. (4+4 = 8 marks)

#### Chapter - 14 : Decentralisation and Transfer Pricing

**2005 - Dec [6]** (a) Division J and A are in M Group. Division J manufactures part N. Three units of Part N are used in product Z manufactured by Division A. Division J has no external customers for part N. Division J transfers part N to Division A at variable costs (Rs. 35 per part) plus 50%. The variable cost to Division A of manufacturing product Z is Rs. 50 per unit. This Rs. 50 does not include the cost of part N transferred from Division J.

Division A can sell the following number of units of product Z, earning the associated levels of marginal revenue:

Units sold	1	2	3	4	5
Marginal Revenue	Rs. 300	Rs. 270	Rs. 240	Rs. 210	Rs. 180

How many units of product Z should management of Division A sell if they wish to maximise divisional profit? (8 marks)

#### Chapter - 17 : Modern Development [Pareto, JIT, LCC, TC etc.]

**2005 - Dec [5]** (a) Z Ltd. produces a single product X, which passes through three different processes, A, B and C. The throughput per hour of the three processes is 12, 10 and 15 units of X respectively. The company works an 8-hour day, 6 days a week, 48 weeks a year. The selling price of X is Rs. 150 per unit and its material cost is Rs. 30 per unit. Conversion costs are planned to be Rs. 24,000 per week.

*Required:*

- (i) Determine the throughput accounting (TA) ratio per day. (4 marks)
- (ii) Calculate how much the company could spend on equipment to improve the throughput of process B if it wished to recover its costs in the following time periods:  
 (a) 2 years, (b) 12 weeks. (4 marks)
- (iii) Calculate the revised TA ratio if this money is spent. (4 marks)
- (b)** X Ltd. manufactures a single product. Standard costs for materials and conversion costs are Rs. 40 and Rs. 30 per unit respectively. The company uses a backflush accounting system with two trigger points: raw materials purchased and goods transferred to finished goods store. At the beginning of March there was no opening stock of raw materials or WIP and at the end of the month there was no WIP.

Other data for the month

Number of completed production units	15000
Number of products sold	14000
Raw materials purchased	Rs. 6,30,000
Conversion costs incurred	Rs. 4,70,000

Prepare summary journal entries for March assuming that there were no material cost variances and without writing off under-or over-absorbed conversion costs. (4 marks)

### Chapter - 18 : Capital Budgeting Techniques

**2005 - Dec [3]** X Ltd., a manufacturer of building products, supplies the wholesale trade. It has recently suffered falling demand due to recession and thus has spare capacity. It now decides to produce ceramic tiles for the home improvement market. It has already paid Rs. 5,00,000 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. 20 per box. Estimated operating costs, based on experience, are as follows:

Cost per box of tiles (Rs.) (at today's price)	
Material cost	8.00
Direct labour	2.00
Variable overhead	1.50
Fixed overhead (allocated)	1.50
Distribution (etc.)	2.00

Production can take place in existing facilities although initial redesign and set-up costs would be Rs. 20,00,000 after allowing for all relevant tax reliefs. Return from the project would be taxed at 33%. X Ltd.'s shareholders require a nominal return of 14% per annum after tax, which includes allowance of 5.5% per annum for inflation.

Required:

- (a) Assess the financial desirability of the venture in real terms, finding both the net present value and the internal rate of return (to the nearest 1%) offered by the project. (4+4= 8 marks)
- (b) Determine the values of

- (i) Price (ii) Volume at which the project's NPV becomes zero.  
 Discuss your results, suggesting appropriate management action.

(4+4= 8 marks)

**Chapter - 20 : Objective Questions**

**2005 - Dec [1] {C}** In each of the cases given below one out of four answers is correct. Indicate the correct answer and give your workings/reasons in support of your answer:

- (a) The total cost of manufacturing a component is as under at a capacity of 50,000 units of production per quarter:

	Rs.
Prime cost	10.00
Variable overheads	2.40
Fixed overheads	<u>4.00</u>
	<u>16.40</u>

The selling price is Rs. 21 per unit. The variable selling and administrative expenses is 60 paise per component extra. During the next quarter only 10,000 units can be produced and sold. Management plans to shut down the plant estimating that the fixed manufacturing cost can be reduced to Rs. 74,000 per quarter. When the plant is operating, the fixed overheads are incurred at a uniform rate throughout the year. Additional costs of plant shut down for the quarter are estimated at Rs. 14,000.

The shut down point for the quarter in units of product will be

- (A) 25,000 (C) 11,000  
 (B) 14,000 (D) 20,000 (4 marks)

- (b) Division J of NZ Ltd. produced the following results in the last financial year:

	Rs. (000)
Net profit	720
Capital employed in fixed assets	3,000
Capital employed: net current assets	200

For performance appraisal purposes, all divisional assets are valued at original cost. The division is considering a project which will increase annual net profit by Rs. 50,000 but will require average stock levels to increase by Rs. 60,000 and fixed assets to increase by Rs. 2,00,000.

NZ Ltd. imposes a 16% capital charge on its divisions. Given these circumstances, will the appraisal criteria Return on Investment (ROI) and Residual Income (RI) motivate division J management to accept the project?

	ROI	RI	
(A)	Yes	Yes	
(B)	Yes	No	
(C)	No	No	
(D)	No	Yes	(4 marks)

- (c) A company manufactures two products using common material handling facility. The total budgeted material handling cost is Rs. 60,000. The other details are:

Product X	Product Y
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Number of units produced	30	30
Material moves per product line	5	15
Direct labour hour per unit	200	200

Under activity based costing system the material handling costs to be allocated to Product X (per unit) would be:

- (A) Rs. 1,000                      (C) 1,500  
 (B) Rs. 500                        (D) 2,500                              (4 marks)

(d) When a manager is concerned with monitoring total cost, total revenue and net profit conditioned upon the level of productivity, an accountant should normally recommend.

	Flexible Budgeting	Standard Costing	
(A)	Yes	Yes	
(B)	Yes	No	
(C)	No	Yes	
(D)	No	No	(4 marks)

- (e) A company's approach to a make-or-buy decision  
 (A) Depends on whether the company is operating at or below normal volume.  
 (B) Involves an analysis of avoidable costs.  
 (C) Should use absorption (full) costing.  
 (D) Should use activity-based costing.                              (4 marks)

**2005 - Dec [6]** (b) Fill in the blank spaces (1 to 4) in the table below to show how standard costing and target costing differ.

Stages in product life cycle	Standard costing approach	Target costing approach
Product concept stage	No action	(1)
Design stage	(2)	Keep costs to a minimum
Production stage	Costs are controlled using variance analysis	(3)
Remainder of life	(4)	Target cost reduced perhaps monthly

Your answers should be supported by reasons.                              (8 marks)

## Paper - 18 Management Accounting Financial Strategy & Reporting

### Chapter - 2 : Accounting for Intangible Assets

**2005 - Dec [6]** (a) What are the arguments for and those against for inclusion of Intangible assets in financial statements?                              (4+2 = 6 marks)

**2005 - Dec [8]** Write short notes the following:

- (a) Accounting for knowledge assets;                              (4 marks)

### Chapter - 4 : Impairment of Assets, Provisions, Foreign Currency

**Translation, Contingent Liabilities and Assets****2005 - Dec [8]** Write short notes the following:

- (d) Treatment of impairment losses of an individual asset. (4 marks)

**Chapter - 5 : Analysis of Financial Statements – Financial Analysis****2005 - Dec [2]** (a) Raygold Ltd. (RL) has a paid-up ordinary share capital of Rs. 200 lakhs represented by 4 lakhs shares of Rs. 50 each. Earnings after tax in the most recent year (2004-2005) were Rs. 80,00,000 of which Rs. 26,50,000 was distributed as dividend. The current price/earning ratio of these shares as reported in the financial press is 8.

The company (RL) is planning a major investment that will cost Rs. 240 lakhs and is expected to produce additional after-tax earnings over the foreseeable future at a rate of 15 percent on the amount invested. The necessary finance is to be raised by a rights issue to the existing shareholders at a price 15 per cent below the current market price of the company's shares.

You are required to calculate:

- (i) the current market price of the shares already in issue;
- (ii) the price at which the rights issue will be made;
- (iii) the number of new shares that will be issued;
- (iv) the value of the rights;
- (v) the price at which the shares of the company should theoretically be quoted on completion of the rights issue (i.e., the ex-rights price), ignoring incidental and transaction costs. Assuming that the rate of return on existing funds is 12.5% and the market accepts the company's forecast of incremental earnings. (2+1+1+2+2 = 8 marks)

**2005 - Dec [3]** All of the 100 accountants employed by Molson Ltd. are offered the opportunity to attend six training courses per year. Each course lasts for several days and requires the delegates to travel to a specially selected hotel for the training.

The current costs incurred for each course are:

Delegate Costs:	Per delegate per course (Rs.)
Travel	200
Accommodation, food and drink	<u>670</u>
	<u>870</u>

It is expected that the current delegate costs will increase by 5% per annum.

Course Costs:	Per course (Rs.)
Room hire	1,500
Trainers	6,000
Course materials	2,000
Equipment hire	1,500
Course administration	<u>750</u>
	<u>11,750</u>

It is expected that the current course costs will increase by 2.5 per cent per annum.

The Director (HRD) of Molson Ltd. is concerned at the level of costs that

these courses incur and has recently read an article about the use of the Internet for the delivery of training courses (e-Learning). He decided to hire an external consultant at a cost of Rs. 5,000 to advise the company on how to implement an e-Learning solution. The consultant prepared a report which detailed the costs of implementing and running an e-Learning solution:

	Notes	Rs.
Computer Hardware	(1)	15,00,000
Software Licences	(2)	35,000 per annum
Technical Manager	(3)	30,000 per annum
Camera and Sound Crew	(4)	4,000 per course
Trainers and Course materials	(5)	2,000 per course
Broadband Connection	(6)	300 per delegate per annum

Notes:

- (1) The Computer Hardware will be depreciated on a straightline basis over 5 years. The scrap value at the end of five years is expected to be Rs.50,000.
- (2) The Company would sign a software licence agreement which fixes the annual software licence fee for 5 years. This fee is payable in advance.
- (3) An employee working in the I.T. Department currently earning Rs.20,000 per annum will be promoted to Manager (Technical) for this project. This employee's position will be replaced. The salary of the Technical Manager is expected to increase by 6 per cent per annum.
- (4) The Company supplying the camera and sound crew for recording the courses for internet delivery has agreed to hold its current level of pricing for the first 2 years but then will increase costs by 6 per cent per annum. All courses will be recorded in the first quarter of the year of delivery.
- (5) The trainers will charge a fixed fee of Rs. 2,000 per course for the delivery and course material in the year and expect to increase this by 6 per cent per annum thereafter. The preparation of the course materials and the recording of the trainers delivering the courses will take place in the first quarter of the year of delivery.
- (6) All of the accountants, utilizing the training courses will be offered Rs.300 towards broadband costs which will allow them to access the course from home. They will claim this expense annually in arrears. Broadband costs are expected to decrease by 5 per cent per annum after the first year as it becomes more widely used by Internet users.

Molson Ltd. uses a 14 per cent cost of capital to appraise projects of this nature, ignore taxation.

*Requirement:*

As the Management Accountant for MOLSON LTD., prepare a financial evaluation of the options available to the company and advise the Director on the best course of action to take, from a purely financial point of view.

*Note:* Extract from the table:

The Present Value factor at 14% Discount rate are:

Year	:	0	1	2	3	4	5
P/V	:	1.000	0.877	0.769	0.675	0.592	0.519

(6+8+2 = 16 marks)

**2005 - Dec [4]** (a) Coomer Ltd. has at the beginning of a period 1,00,000 Equity Shares of Rs. 10 each and 12% long-term debt of Rs. 8,00,000. The finance department of the company has generated the following forecast financial statistics for the period:

Return on Total Assets (ROTA) (PBIT/Total Assets)	20%
Debt Ratio (External Liabilities/Equity)	0.80
Effective Interest Rate (EIR) (Interest Expense/Total Liabilities)	8%
Current Assets to Fixed Assets	0.5:1
Tax Rate	40%

The Assets, Liabilities and Equity figures used to compute the above financial statistics are based on forecast period-end balances. The company has no plan to change its equity share capital and long-term debt.

You are required to:

- (i) Prepare the forecast balance sheet as at the end of the forecast period with as many details as possible; and
- (ii) Forecast Earnings per Share (EPS)

Show necessary workings. (4+2+4 = 10 marks)

**(b)** Throughout the year ended 31st March, 2005 C.L.C. Ltd. had in issue Rs. 4,00,000 8% convertible debentures. The terms of conversion for every Rs. 1000 of debentures are as follows:

31st March, 2005	120 Equity Shares
31st March, 2006	115 Equity Shares
31st March, 2007	110 Equity Shares

Profits attributable to equity shareholders for the year amounted to Rs.5,00,000. The weighted average number of equity shares in issue during the year was 2,00,000. The tax rate is 40%

*Calculate:*

- (1) Fully diluted earnings; and
- (2) Fully diluted earnings per share. (3+3 = 6 marks)

#### **Chapter - 6 : Analysis of Financial Statements – Portfolio Analysis**

**2005 - Dec [5]** (a) What are the most common option-trading strategies? Give a brief description of each such strategy. (5 marks)

**(b)** Quickset Company's equity shares are currently selling at a price of Rs. 400 each. An investor is interested in purchasing Quickset's shares. The investor expects that there is a 70% chance that the price will go up to Rs. 550 or a 30% chance that it will go down to Rs. 350, three months from now. There is a call option on the shares of Quickset that can be exercised only at the end of three months at an exercise price of Rs. 450.

- (i) If the investor wants a perfect hedge, what combination of the share and option should be select?
- (ii) Explain how the investor will be able to maintain identical position regardless of the share price.
- (iii) If the risk-free rate of return is 5% for the 3 month period, what is the value of the option at the beginning of the period?
- (iv) What is the expected return on the option? (3+3+3+2 = 11 marks)

**2005 - Dec [6]** (b) As a financial analyst of Wilson Electronics Ltd. (WLL) you are requested to determine the Weighted Average Cost of Capital (WACC) of the company using Market Value Weights. The following information is available for your perusal.

The Company's present book value Capital Structure is:

	Rs. (Lakh)
Equity shares (Rs. 10 per share)	270
Reserve	180
9% Preference shares (Rs. 10 per share)	90
10% Debentures (Rs. 100 per debenture)	90
12% Term loans	<u>270</u>
	<u>900</u>

All these Securities are traded in the Capital Market.

Recent prices are:

Ex-dividend equity share price	Rs. 15
Ex-dividend preference share price	Rs. 12
Ex-interest debenture market value	Rs. 103

Additionally the following informations are available:

Company's Equity beta — 1.06
Yield on long-term treasury bonds — 10%
Stock market risk premium — 6%
The debentures are redeemable after 3 years and interest is payable annually.
Corporate tax rate — 35%

*Note:* Ignore floatation costs and transaction costs. (2+3+5 = 10 marks)

### **Chapter - 7 : Capital Asset Pricing Model (CAPM) and Multi-Factor Models**

**2005 -Dec [7]** (b) The following informations are available from a Merchant Bank:

Company	Forecast Equity Return	Standard Deviation of total Equity Return	Covariation with Market Return
	(%)	(%)	(%)
Infosys	16.00	6.3	32
HLL	12.00	4.8	19
Reliance	14.00	4.7	24
Tata Motors	19.00	6.9	43

The market return and the market standard deviation are 14.50 per cent and 5

per cent respectively and the risk-free rate is 6 per cent.

*Required:*

Estimate the "ALPHA" values for each of these companies' shares.

(2+4 = 6 marks)

### Chapter - 8 : Trends in Corporate Reporting

**2005 - Dec [2]** (b) B.K. Construction Ltd. (BKCL) commenced construction of a cement factory in Jhargram on 01.04.2003 for Royal Industries Ltd., one of its customers. The contract price was fixed at Rs. 150 lakh and the initial estimate of total construction cost was Rs. 128 lakh. At the end of 2003-04, the initial estimate of cost was revised to Rs. 129 lakh. Royal Industries Ltd. approved a variation in 2004-05 and agreed to increase the contract price to Rs. 156 lakh. The contractor (BKCL) estimated additional cost of Rs. 3 lakh for the variation. The contractor or (BKCL) determines the stage of completion of the contract by calculating the proportion that contract costs incurred for work performed upto the reporting date bear to the latest estimated total contract costs.

It took three years to complete the construction. Costs incurred are as follows:

Year	Costs (Rs. in lakh)
2003-04	38.70
2004-05	61.80 (including stock of materials as on 31.03.05 Rs 1.50 lakh)
2005-06	33.15 (including opening stock of materials Rs. 1.50 lakh)
Total	<u>Rs. 133.65</u>

You are required to work out:

- Total estimated contract costs;
- Stage of completion-percentage;
- Contract revenues; and
- Profit/(Loss) on the contract of B, K, Construction Ltd. for the year ended March 31, 2004, March 31, 2005, March 31, 2006 with reference to the relevant Accounting Standard.

(2+2+1+3 = 8 marks)

**2005 - Dec [7]** (a) The Accounts of Siteraze Ltd. (SL) engaged in manufacturing business are summarized below:

#### INCOME STATEMENT FOR THE YEAR ENDED MARCH, 31,2005

(Amount in Rs. Million)

Sales Revenue		95.00
<i>Less:</i> Cost of goods sold	59.10	
General expenses	6.80	
Administrative expenses	7.80	
Selling and distribution expenses	2.90	
Interest on loan	<u>1.80</u>	<u>78.40</u>
Earnings Before Tax (EBT)		16.60
<i>Less:</i> Corporate Taxes (0.35)		<u>5.81</u>

Earning After Taxes (EAT) 10.79

BALANCE SHEET AS AT MARCH 31, 2005

(Amount in Rs. Million)

<i>Liabilities</i>		<i>Assets</i>	
Equity share capital		Freehold land and	
		buildings (net)	20.00
(10 lakh shares of Rs. 10 each)	10.00	Plant and machineries (net)	28.50
Reserves and surplus	31.50	Current Assets:	
10% Loan	18.00	Stock	10.00
Creditors and other liabilities	18.00	Debtors	15.00
		Bank and cash balances	<u>4.00</u>
	<u>77.50</u>		<u>77.50</u>

Additional Informations:

- The risk free rate of return in the economy is 8% and the premium expected from business in general is 5%. The beta of Siteraze Ltd. shares is currently 1.27.
- The equity shares of this company (SL) quoted in the market as on 31.3.2005 are Rs. 50 per share.
- General expenses include R&D expenses of Rs. 0.50 million.

*Note:* For EVA computation R&D expenses are to be considered as an investment.

*Requirements:*

- Determine the Economic Value Added(EVA) for the year ended March 31, 2005 and
- Determine the amount of Market Value Added (MVA) for the year ended March 31, 2005. (5+2+3 = 10 marks)

**2005 - Dec [8]** Write short notes the following:

- Global Reporting Initiative (GRI); (4 marks)
- Segment reporting; (4 marks)

**Chapter - 9 : Objective Questions**

**2005 - Dec [1] {C}** (a) In the cases below, one of the answer is correct. Choose the correct answer and give your workings/reasons briefly:

- CIPLA Ltd. announced a rights issue of four shares of Rs. 100 each at a premium of 160% for every five shares held by the existing shareholders. The market value of the shares at the time of rights issue is Rs. 395. The value of a right is:
  - Rs. 90.00
  - Rs. 80.00
  - Rs. 60.00
  - Rs. 55.00
- PR Company's equity share is expected to provide a dividend of Rs.3.00 and fetch a price of Rs. 40.00 a year hence. What price would it sell for now if investors' required rate of return is 15 percent?
  - Rs. 35.50

- B. Rs. 37.39
- C. Rs. 38.27
- D. Rs. 40.00

- (iii) The equity shares of MNC Ltd. are selling at Rs. 240 each. At the end of the holding period the share is expected to worth any one of the following values:

Price	Profitability
Rs. 220	0.3
Rs. 250	0.4
Rs. 280	0.3

A European call option with an exercise price of Rs. 240 will (ignoring time value of money) worth:

- A. Rs. 16
  - B. Rs. 15
  - C. Rs. 14
  - D. Rs. 18
- (iv) On April 1.3 months interest rate in the US \$ and Germany DM are 6.5 per cent and 4.5 per cent per annum, respectively. The US \$/DM spot rate is 0.6560. What would be the forward rate for DM for delivery on 30th June?
- A. US \$ 0.6592/DM
  - B. US \$ 0.6528/DM
  - C. US \$ 0.6430/DM
  - D. US \$ 0.6525/DM
- (v) An asset has a book value of Rs. 5,00,000. The current replacement cost of an equivalent asset is Rs. 6,00,000. The net realisable value of the asset is Rs. 4,80,000. The present value of the future cash flows estimated to be generated by the asset is Rs. 5,90,000. The deprival value of the asset is:
- A. Rs. 5,00,000
  - B. Rs. 6,00,000
  - C. Rs. 5,90,000
  - D. Rs. 4,80,000

(2×5 =10 marks)

- (b) From the following, choose the most appropriate answer (only indicate A, B, C, D, as you think correct)

- (i) A derivative financial instrument
  - A. is settled at a future date
  - B. is renewed at each balance sheet date
  - C. invariably forms part of a hedging relationship
  - D. All of the above
- (ii) Firm specific risk is also called

- A. Market risk
  - B. Non-systematic risk
  - C. Macro risk
  - D. All of the above
- (iii) The price of a company's share has risen from Rs. 10 to Rs. 400. Small investors are complaining that this is affecting their ability to buy shares in the company. Which one of the following might overcome the problem?
- A. A share buy-back
  - B. A share split
  - C. Issuing stock option
  - D. A share consolidation
- (iv) Four companies, have the following P/F ratios:  
E 17, F 24, G 12, H 8. Which of the statement about the companies is incorrect?
- A. F's share price must be twice that of G
  - B. E's share price is 17 times its earnings
  - C. H has the lowest share price relative to its earnings per share
  - D. F has the greatest expectations of future earnings growth
- (v) According to AS-26, an active market is a market where
- A. the items traded within the market are homogeneous
  - B. prices are not available to the public
  - C. willing buyers and sellings are not found any time
  - D. All of the above
- (vi) A portfolio is not efficient if there is another portfolio within
- A. a higher expected return and lower standard deviation
  - B. a lower expected return and same standard deviation
  - C. the same expected return and higher standard deviation
  - D. None of the above
- (vii) Write an option does not imply
- A. Selling an option
  - B. Taking a short position
  - C. Taking a long position
  - D. Accepting an uncertain obligation
- (viii) A strategy of anti-takeover under which the acquirer puts pressure on the management of the target company by threatening to make an open offer is known as:
- A. Street sweep
  - B. White knight
  - C. Bear hug
  - D. Brand power
- (ix) Buying and selling call or put option with the same strike price but

different expiration dates is called:

- A. Long hedge
  - B. Short hedge
  - C. Horizontal option spread
  - D. None of the above
- (x) A company has an equity rate of return of 12 per cent and a debt rate of return of 6 per cent. Its gearing ratio is 40 per cent. The tax rate is 30 per cent. Interest payments on debt are chargeable for tax. The weighted average cost of capital of the company is:
- A. 8.88 per cent
  - B. 9.88 per cent
  - C. 10.88 per cent
  - D. 9.60 per cent
- (1×10 = 10 marks)

## Paper - 19

### Cost Audit and Management Audit

#### Chapter - 3 : Planning and the Structuring the Cost Audit

**2005 - Dec [4]** (b) What are the preliminary information you, as a Cost Auditor, will collect from the company which is subject to cost audit for the first time? (7 marks)

#### Chapter - 4 : Verification of Records and Reports

**2005 - Dec [3]** (a) As a cost auditor, how would you deal with the following?

- (ii) A company has not maintained cost accounting records though having the obligation under Section 209(1)(d) of the Companies Act, 1956. The management is of the opinion that necessary steps could be taken after the cost audit order is received from the Government. Are the directors of the company absolved of the obligation to maintain cost accounting records? (2 marks)

#### Chapter - 5 : Internal Control & Internal Audit

**2005 - Dec [3]** (b) What is an 'Unbalanced Plant'? What are the different options that you, as a Cost and Management Auditor, would like to offer as 'rectification techniques' to remove 'imbalances' for ensuring better economic utilisation of such a plant? (2+3 = 5 marks)

#### Chapter - 6 : Professional Ethics & Code of Conduct

**2005 - Dec [1] {C}** (b) State with reasons whether the following activities amount to professional misconduct;

- (i) A Cost Accountant takes voluntary retirement from his employer and starts practice. He continues his association with his previous employer as an advisor, on a monthly retainership basis.
- (ii) A Cost Accountant gives a certificate of cost for a product

- manufactured by a SSI unit, owned by his son.
- (iii) A Practising Lawyer specializing in 'Anti-dumping cases' comes to an informal understanding with a practising Cost Accountant to assist him in preparing accounting statements to support his cases and agrees to share his fees on a percentage basis.
  - (iv) A Practising Cost Accountant accepts an assignment previously held by another Cost Accountant in practice, after due communication with him in writing.
  - (v) Shares information acquired in course of his professional engagement to any person, other than the client so engaging him.

(2×5 = 10 marks)

**Chapter - 7 : Cost Audit Report Rules — 2001**

**2005 - Dec [2]** As a Cost and Management Auditor, you are asked to look into the proposed decision of a company to temporarily suspend operations due to depressed market conditions. The data available are:

Budgeted level (per annum)	Capacity Utilisation	
	60%	80%
	Rupees in '000	
Direct Material	180	240
Direct Labour	240	320
Production overhead	126	138
Administrative overhead	62	66
Selling & Distribution overhead	68	74
Total	676	838

The company is likely to operate at 50% capacity only and the turnover is expected to be Rs. 4,95,000 p.a. Market Research indicates that the depression will be over in a year and after that they can effect a sale of Rs.9,00,000 p.a. utilizing 75% of capacity.

If operations are suspended for a year, the following cost will be incurred:

- Fixed cost Rs. 40,000;
- Settlement with labour force will cost Rs. 35,000;
- Maintenance of plant will continue and cost Rs. 10,000;
- Cost of re-opening will be Rs. 10,000.

Draft a report to the Management on the following two options:

- (i) To suspend production for one year and restart thereafter when market improves.
  - (ii) To continue production at 50% capacity level. (15 marks)
- 2005 - Dec [3]** (a) As a cost auditor, how would you deal with the following?
- (i) A company has produced all accounting records within the stipulated time for your audit. It however is unable to produce audited financial accounts, as financial audit is not yet complete. (2 marks)
  - (iii) A company, which manufactures cables and conductors, has charged

- only a portion of the administrative overheads to cost of production and the balance to the cost of sales of its products. (2 marks)
- (iv) A sugar mill, which produces sugar from sugarcane, uses bagasse as fuel to produce steam. In its cost statement, such input of bagasse is valued at nil value, as according to the company, it has incurred no cost in acquiring bagasse, which is only a waste product. (2 marks)
- (v) During plant stoppages, the operational labour is being utilized by the company for cleaning, oiling, and such other routine jobs of the same plant. Their wages for that period also are treated as direct wages in cost of production. (2 marks)

#### **Chapter - 8 : Cost Accounting Record Rules**

**2005 - Dec [4]** (a) The Financial profit and loss account for the year 2004-05 of a company shows a net profit of Rs. 26,28,000. During the course of cost audit, it was noticed that:

- (i) The company was engaged in trading activity by purchasing goods at Rs. 4,00,000 and selling it for Rs. 5,00,000 after incurring an expenditure of Rs. 25,000.
- (ii) Some old assets sold off at the end-end fetching a profit of Rs. 80,000.
- (iii) A major overhaul of machinery was carried out at a cost of Rs.4,00,000. And the next such overhaul will be done only after four years.
- (iv) Interest was received amounting to Rs. 1,50,000 from outside investments.
- (v) Work-in-progress valuation for financial accounts does not as a practice take into account factory overhead. Factory overhead was Rs.1,85,000 in opening WIP and Rs. 3,15,000 in closing WIP.

Work out the profit as per Cost Accounts and briefly explain the adjustment, if any, carried out. (8 marks)

#### **Chapter - 10 : Basics of Management Audit**

**2005 - Dec [7]** (a) What are management frauds?

As a management auditor, how will you prevent and control these frauds?

(2+5 = 7 marks)

#### **Chapter - 11 : Corporate Services Audit**

**2005 - Dec [6]** (a) The Managing Director of a company wants your advice as a management auditor on the points to be considered for take-over of a manufacturing company. Prepare a checklist for this purpose. (7 marks)

(b) Today's customer is more demanding than the customer of yesterday. In view of this, how would you evaluate, as a Management Auditor, the performance of "Customer Services Department". (8 marks)

**2005 - Dec [7]** (b) As a management auditor of an engineering company, you are requested to submit a report to the management suggesting suitable control procedures for wastage, scrap, spoilage and obsolescence of materials. Draft

a report explaining the areas, which you would like to highlight. (8 marks)

**2005 - Dec [8]** Evaluation of the personnel function of an organisation by the management auditor is by no means an easy task. In your view what are the areas to be covered and points to be kept in mind while assessing the personnel function of an organisation? (15 marks)

**Chapter - 16 : Objective Questions**

**2005 - Dec [1] {C}** (a) State whether the following statements are "True" or "False". No reason or explanation need be given:

- (i) Cost Audit is a type of efficiency audit and not a propriety audit.
- (ii) The liberalization of the economy has diminished the utility of Cost Audit?
- (iii) The formation of Audit Committee is a big leap in ensuring better corporate governance.
- (iv) India is the first country in the world in introducing the provisions of compulsory maintenance of the Cost Accounting records.
- (v) The Cost Auditor cannot be the Internal Auditor of a Company for the period for which he is conducting the Cost Audit.
- (vi) The Annexure to the Cost Audit Report (paras 1 to 28) is to be prepared by the Cost Auditor,
- (vii) The Cost Auditor is appointed in the Annual General meeting of the Company.
- (viii) The Proforma (product cost sheet) attached to the Cost Audit Report should be prepared separately for sale to any related party,
- (ix) Non-moving stock of raw materials and components are those stocks which have not moved for more than 24 months,
- (x) The Cost Auditor is a member of the Audit Committee of the Company. (1×10 = 10 marks)

**2005 - Dec [5] {C}** (a) State whether the following statements are "True" or "False". No reason or explanation need be given:

- (i) Audit of Human Resources Development is outside the scope of Management Audit,
- (ii) The main emphasis of Management Audit is on problem-identification rather than problem solving,
- (iii) Management Audit in certain specified companies may be ordered by the Government by a special resolution.
- (iv) Management Auditor should be a qualified Accountant.
- (v) Management Audit imposes barriers in executive decision making.
- (vi) The special audit under Sections 14A and 14AA of the Central Excise Audit can be conducted by the practising Cost Accountant only.
- (vii) The cost of production of goods cleared for captive consumption should be certified as per CAS-4 only by a practising Cost Accountant.
- (viii) While issuing a certificate containing a number of pages, it would

suffice, if only the last page is signed by the practising Cost Accountant.

- (ix) Audit of the records of the Accounts Department is outside the scope of Management Audit.
- (x) Corporate image of a company is built up not only by its product quality, but also, by its attitude towards various stakeholders.

(1×10 = 10 marks)

(b) Explain in one/two sentences the main/basic difference between the following:

- (i) Financial Audit & Management Audit;
- (ii) Job-enrichment & Job Rotation;
- (iii) Corroborative Evidence and Circumstantial Evidence;
- (iv) Sales & Marketing;
- (v) Data & Information.

(2×5 = 10 marks)

## Paper - 20 Valuation Management and Case Study

### Chapter - 1 : Principles and Techniques of Valuation

**2005 - Dec [2]** (a) Discuss various aspects of computation of Economic Value Added and its application in business planning and valuation. (10 marks)

(b) Explain the differences between financial and operating synergy? (6 marks)

### Chapter - 4 : Valuation of Shares

**2005 - Dec [4]** The following information is given for Glow-Health Ltd., a leading pharmaceutical company.

Year	After tax earnings (Rs. in lakh)	Dividends (Rs. in lakh)	Issued shares in Lakh	Price per share in praise
2000	129.3	51.75	270	540
2001	138.6	54.3	270	615
2002	148.95	56.4	270	518
2003	201.6	77.4	360	689
2004	222.9	79.95	360	672

  

Year	All share index	Inflation rate
2000	4343	6%
2001	4950	5%
2002	4268	4%
2003	3915	3%
2004	3458	3%

Glow Health's cost of equity is estimated to be 12%.

- (a) Explain with numerical workings, the current dividend policy of Glow-

Health Ltd. and also discuss whether or not this appears to be successful.  
(8 marks)

- (b) Identify and consider additional information that might assist the managers of Glow-Health in assessing whether the dividend policy has been successful. (5 marks)
- (c) Evaluate whether or not the Company's share price at the end of year 2001 was what might have been expected from the Dividend Growth Model. Briefly discuss the validity of your findings. (3 marks)

**2005 - Dec [6]** What are the SEBI guidelines for valuation of unlisted shares?  
(16 marks)

**2005 - Dec [7]** (a) What is index futures and what are its salient features?  
(8 marks)

(b) The settlement price of sensx futures contract on a particular day was Rs. 4,600. The initial margin was set at Rs. 10,000, while the maintenance margin was fixed at Rs. 8,000. The multiple of each contract is 50.

The settlement prices on the following four days were as follows:

Day	Settlement Price Rs.
1	4,700
2	4,500
3	4,650
4	4,750
5	4,700

Calculate the mark to market cash flows and the daily closing balances in the accounts of

- (a) an investor who has gone long, and  
(b) an investor who has gone short at 4600.

Calculate net profit (loss) on each of the contracts. (8 marks)

#### **Chapter - 5 : Business Valuation**

**2005 - Dec [5]** (b) What are the possible causes of horizontal and vertical mergers?  
(4 marks)

#### **Chapter - 7 : Special Points on Valuation**

**2005 - Dec [3]** (a) Halfway online, an internet service provider has 1 million existing subscribers. Each subscriber is expected to remain for 3 years. Halfway expects to generate Rs. 100 net after-tax cash flow (subscription revenues minus costs of providing service) per subscriber each year. Halfway has a cost of capital of 15%. Furthermore assume the Halfway expects to add 1,00,000 subscribers each year for the next 10 years and that the value added by each subscriber will grow from the current level at the inflation rate of 3% every year. The cost of adding a new subscriber is Rs. 100 currently, assumed to be growing at the inflation rate.

Based on the informations given find out the value of the firm and the

value per existing subscriber.

(Note: Rs. 1 million = Rs. 10,00,000) (12 marks)

**(b)** Why are sector specific multiples used by analysis? (4 marks)

**2005 - Dec [5]** (a) Laxmi Enterprise is to acquire a personal computer complete with multi-media kit and a printer. Its price is Rs. 60,000. Laxmi Enterprise can borrow Rs. 60,000 from Punjab National Bank at 12% interest per annum to finance the purchase. The principal sum is to be repaid in 5 equal year and instalments. Laxmi Enterprise can also have the computer on lease for 5 years and seeks your advise to know the maximum lease rent per year payable at the end of each year.

You collect the following additional information:

- (i) Interest on Bank loan is payable at the end of each year.
- (ii) The full cost of the computer will be written off over the effective life of computer on a straight line basis. This is allowed for tax purposes.
- (iii) At the end of year 5, the computer may be sold for Rs. 1500 through a second-hand dealer who will charge 8% commission on the sale proceeds.
- (iv) The company's effective tax rate is 30%.
- (v) The cost of capital is 11%.

Suggest the maximum lease rental for Laxmi Enterprise. (12 marks)

**2005 - Dec [8]** The Finance Director of Green Field Ltd. is investigating a potential Rs. 250 lakh investment. The investment would be in a bio-tech project away from existing mainstream activities of computer hardware manufacture Rs. 60 lakh of the investment would be financed by internal funds, Rs. 90 lakhs by long term loans and Rs. 100 lakhs by right issue. The investment is expected to generate pre-tax net cash flows of approximately Rs.50 lakhs a year, for a period of 10 years. The residual value at the end of year 10 is forecast to be Rs. 50 lakhs after tax. Government loan of Rs. 40 lakhs out of total 90 lakhs is also available. This will cost 2% below the Company's normal cost of long term debt finance, which is 8%.

Green Field Ltd.'s financial gearing is 60% equity and 40% debt by market value and its equity beta is 0.85. The average equity beta in computer hardware industry is 1.2, and average gearing 50% debt and 50% equity by market value.

The risk free rate is 5.5% per annum and the market return 12% per annum. Issue costs are estimated to be 1% for debt financing (excluding subsidized loan) and 4% for equity financing.

The corporate tax is 30%.

(Issue costs are not tax deductible)

(a) Estimate the adjusted present value of the proposed investment. (12 marks)

(b) Explain the circumstances under which Adjusted Present Value (APV)

might be a better method of evaluating a capital investment than Net Present Value (NPV). (4 marks)

**Chapter - 9 : Objective Questions**

**2005 - Dec [1] {C}** (a) Attempt all the questions by selecting the correct option:

- (i) P/E rises when
  - (a) Growth rises, discount rate falls, reinvestment rate is flat.
  - (b) Growth falls, discount rate falls, reinvestment rate rises.
  - (c) Growth exceeds, discount rate and reinvestment rate falls short of growth.
  - (d) Discount rate falls and reinvestment rate rises.
- (ii) Which of the following statements is generally descriptive of efficient markets?
  - (a) Inefficiency is not consistent with discounted cash flow valuation.
  - (b) The stock market 'always' (nearly so) gets it right (that is the true value of the asset).
  - (c) Investors can't beat the market unless they have better information about the value of the asset.
  - (d) Trading oriented strategies can beat the market.
- (iii) If growth is 10%, return on new investment is 20% and discount rate is 15%, then P/E is
  - (a) 1000
  - (b) 100
  - (c) 10
  - (d) Not defined
- (iv) Shareholders can align managers with enterprise goals by
  - (a) Requiring more frequent and detailed reporting of operations.
  - (b) Replacing debt with equity, thus, forcing managers to invest in high-yield operational assets.
  - (c) Establishment of Management by objectives principle.
  - (d) Reviewing management's hiring choices.
- (v) How does economic profit grow?
  - (a) Increase in invested capital
  - (b) Increase in cost of capital
  - (c) Increase in shareholder's return expectations
  - (d) Decrease in shareholder's returns expectations

(2×5 = 10 marks)

**(b)** State whether the following statements are true or false:

- (i) Organisational Capital is a primary component of intellectual capital. (True/False)
- (ii) The PS ratio becomes higher as riskiness of a firm decreases. (True/False)
- (iii) Increase in strike price increases the value of call option. (True/False)

- (iv) Zero coupon bonds do not make periodic interest payments.  
(True/False) (1×4 = 4 marks)
- (c) Fill in the blanks by filling the appropriate word given in the brackets:
- (i) Land and building is an example of ..... asset. (Real/Financial)
- (ii) The risk in holding a Government bond is ..... the risk associated with a debenture issued by a company. (More than/Less than)
- (iii) Since equity is a call option on the value of the firm, an increase in the variance in the firm value will lead to an ..... in the value of equity. (Increase/decrease)
- (iv) Investors expectations and the market appraisal of the performance of a firm is measured by .....(Earning per share/Return on equity/ Price earning ratio)
- (v) Dividend discount model is a specific case of ..... valuation. (Equity/Bond/both equity and bond)
- (vi) If inflation is expected to go up in future periods, shorter term rates will be ..... than longer term rates. (Higher/Lower)  
(1×6 = 6 marks)

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