INSTITUTE OF ACTUARIES OF INDIA

EXAMINATIONS

26th May 2009

Subject CT2 – Finance and Financial Reporting

Time allowed: Three Hours (10.00 – 13.00 Hrs)

Total Marks: 100

INSTRUCTIONS TO THE CANDIDATES

1. *Please read the instructions on the front page of answer booklet and instructions to examinees sent along with hall ticket carefully and follow without exception*
2. *Mark allocations are shown in brackets.*
3. *Attempt all questions, beginning your answer to each question on a separate sheet. However, answers to objective type questions could be written on the same sheet.*
4. *In addition to this paper you will be provided with graph paper, if required.*

AT THE END OF THE EXAMINATION
Please return your answer book and this question paper to the supervisor separately.

Q 1) “The preparation of financial statements should avoid presenting an unduly optimistic set of results”. Which of the following statement is the least accurate in the above mentioned context?

A. The lowest reasonable figure should be stated for profit or for any of the assets.

B. The highest reasonable figure should be stated for any liabilities.

C. Profits are recognized by inclusion in income statement whether realized in the form of cash or of other assets, or which can be assessed with reasonably certainty or is a best estimate in the light of the available information.

D. Provision is made for all known liabilities, expenses and losses, whether the amount is known with certainty or is a best estimate in the light of the information available.

[2]

Q 2) Which of the following instruments is often used by companies that requires regular series of payments –

A. Commercial Paper.
B. Leasing.
C. Bills of exchange.
D. Invoice Discounting.

[2]

Q 3) Which of the following are not the main characteristics of bill of exchange –

A. It must be in writing.
B. It must contain an order to make payment.
C. The order must be unconditional.
D. The amount of bill of exchange may not be definite.

[2]

Q 4) Which of the following has the lowest expected return (ignoring the effect of tax)?

A. Convertible preference shares
B. Ordinary equity shares
C. Subordinated debt
D. Unsecured loan stock

[2]

Q 5) What happens to a company's weighted average cost of capital if the corporate tax rate increases and RBI policies cause an increase in the risk free rate?

(Consider the two events independently)

	Tax rate increase	Increase in risk free rate
A.	Decrease	Increase
B.	Decrease	Decrease
C.	Increase	Increase
D.	Increase	Decrease

[2]

Q 6) Dynamic Ltd is investing Rs 4 crores to purchase new industrial equipment. The estimated NPV of future after tax cashflows from the equipment is Rs 7 crores. The company currently has 2 million equity shares, with a current market price of Rs 350. Assuming that this project is new information and independent of other expectations about the company, what is the theoretical effect of public disclosure of the purchase of the new equipment on the stock price?

A. Decreases to Rs 330
B. Increases to Rs365
C. Increases to Rs385
D. Remains unchanged

[2]

Q 7) Which of the following is a valid relationship in the ratio analysis –

A. PE Ratio = Net Dividend Yield/ Payout Ratio.
B. PE Ratio = 1/ (Net dividend yield x Payout ratio).
C. (PE ratio x Net dividend yield)/ Payout ratio = 1.
D. Payout ratio = Dividend cover x Dividend Yield.

[2]

Q 8) Which of the following problems is most likely to be overlooked by a ratio analysis of a company's financial statements?

A. Contingent Liabilities
B. High gearing
C. Poor efficiency
D. Liquidity problems

[2]

Q 9) Which of the following statements list the merits of written down value method depreciation –

A. Assets can be completely written off.
B. No undue pressure in later years.
C. Simplicity of calculation.
D. Equality of depreciation burden.

[2]

Q 10) Which of the following statements is the least accurate?

A. The discounted payback period is generally longer than the payback period
B. The IRR can be positive even if the NPV is negative
C. The payback period considers all cashflows through out the entire life of a project
D. The shareholder value approach is an extension of the NPV approach of capital project appraisal **[2]**

Q 11) **a)** Define the following –

i. Bearer Document
ii. Clean Price
iii. Free Float
iv. Puttable Bond

[0.50 marks for each definition, max 2 marks] (2)

b)

i. Why is capital budgeting important? (1)
ii. What are the complex choices, when decisions about investment in fixed assets are made? (1)

c) What are the advantages and disadvantages of invoice discounting and non recourse factoring from the point of view of supplier? (4)

[8]

Q 12) **a)** Define an indexation allowance. (1)

b) Mr X bought property in Dec 2004 for Rs. 35, 00,000 and the Retail Price Index at that date was 120. He spent Rs. 5, 00,000 to carry out enhancements on the property in July 2005 when the RPI was 135. He sold the property in Dec 2007 for Rs. 60, 00,000 when the RPI was 152, and incurred a cost of Rs. 1, 50,000 in the sale of the property. He also incurred capital loss of Rs. 10, 00,000 on the sale of a second piece of property during 2007. Calculate the capital gains tax payable by him during 2007 at a tax rate of 20% (2)

c) Give 3 examples of how the Government can structure taxes to encourage or discourage certain kinds of behaviour among individual tax payers (1.5)

d) Give 3 examples of how the Government can structure taxes to encourage or discourage certain kinds of behaviour among corporates. (1.5)

[6]

Q 13) **a)** Company X issued Rs. 50, 00,000 of unsecured loan stock at a face value of Rs. 10, 000 per unit in July 2008. Holders of this stock have the option to convert each unit of the loan stock into 5 equity shares in July 2012. The conversion premium as at July 2008 is Rs. 800. What is the current market price of Company X's equity shares? (2)

b) What advantage does convertible unsecured loan stock have over ordinary share capital and ordinary unsecured loan stock from an issuing company's perspective? (2)

c) Company X issues a single premium investment bond which gives a return equal to the return on the Sensex over a 5 year period with a guarantee that the proceeds will be equal to a minimum of the initial premium invested.

The investor must hold the bond for the full 5 year period.

Suggest two different asset structures that the company can use to back the bond and hedge its risk.

Assume that there are no regulatory restrictions over the use of derivative securities and that bond and interest rate futures and options, American and European style equity index call and put options and interest rate swaps are all readily available. (3)

d) What is the main difference between a rights issue and a script issue? What is the effect on the issuing company's balance sheet from each of these issues? (3)

[10]

Q 14) **a)** What does the beta of a company represent? (1)

b) Company X has Rs 50m of equity share capital, no debt and a beta of 1.2. It then issues debt capital of Rs.50m consisting of two equal size tranches of debentures with gross redemption yields of 7.0% and 8.0% respectively. The return on government issued bonds is 6.0%.

The corporate tax rate is 30% and the interest payments on debentures are a treated as a tax deductible expense. The market rate of return is 14.0%.

Calculate the weighted average cost of capital before and after the debenture issue. (3)

c) List two main uses of the WACC for a corporate. (1)

[5]

Q 15) Income statement for ABC Pvt Ltd for the year 2008 –

	Rs '000
Revenue	500,000
Increase in stock	(14,000)
Raw Materials	(190,000)
Depreciation	(60,000)
Gross Profit	**236,000**
Admin expenses	(170,000)
Operating Profit	**66,000**
Finance Income	4,000
Net Profit before interest and taxation	**70,000**
Finance Costs	19,900
Net profit before taxation	**50,100**
Tax	16,534
Profit after taxation	**33,566**

Balance sheet for ABC Pvt Ltd as at 31st Dec 2008–

	Rs '000
Assets	
Non current assets	
Intangible assets	40,000
Tangible assets	150,000
	190,000
Current assets	
Inventories	84,000
Trade receivables	120,000
Cash	28,000
	232,000
Total Assets	**422,000**
Equity and Capital	
Called up share capital (160 million shares @ 50 p)	80,000
Retained earnings	40,000
Other reserves	20,000
Total Equity	**140,000**
Liabilities	
Non – current liabilities	
10% unsecured loan stock 2011	50,000
11% subordinated loan stock 2014	38,000
$9^{3/4}$% mortgage debentures 2012	32,000
$9^{1/2}$% Eurosterling 2010	80,000
Total Non – current liabilities	200,000

Current Liabilities	
Trade payables	64,000
Taxation	18,000
Total current liabilities	82,000
Total Liabilities	**282,000**
Total Equity and Liabilities	**422,000**

Calculate the following ratios for ABC Pvt Ltd –

1. Net present value per share
2. Current ratios
3. Quick ratios
4. Stock turnover ratio
5. Profit margin
6. Return on capital employed
7. Debtors turnover ratio
8. Creditors turnover ratio

[0.25 mark for each, max 2 marks]

Interpret each of the figures you have calculated for each ratio other than 1. and 5.

[0.50 mark for each, max 3 marks]

[5]

Q 16) **a)** The external auditors of a listed company have indicated that the next audit report might be "qualified" unless financial statements are changed before publication. "Explain significance of qualified audit report in this context". (2)

b) The operating profit of a company is Rs 25 lakhs after including an adjustment in respect of depreciation of RS 5 lakhs. Movement in the following items over the financial period are -

i.	Trade and other receivables	Increase of Rs 30,000/-
ii.	Trade and other payables	Decrease of Rd 75,000/-
iii.	Inventories	Increase of Rs 28,000/-

Calculate the cash generated from operating activities? (4)

[6]

Q 17) **a)** Company X is a newly set-up deep sea oil exploration company. The company aims to identify viable oil resources and sell these finds to larger oil corporations for development into oil wells.

Its main assets are its expert team of geologists, oil industry experts and an exploration ship. It plans to lease any other drilling equipment, as well as hire any local skilled resources/ divers it may need during its exploration activities.

Recommend the debt/equity mix in the capital structure of the company. (4)

b) Company X is embarking on a new project that involves deep sea exploration in the waters belonging to Country Aftra. This country has a long history of political instability with frequent changes in the ruling regime. It is also plagued by bade weather and typhoons are especially common.

Prepare a risk matrix setting out the risk causes for the three main stages of the project set out below:

1) exploration rights negotiations
2) construction of drilling sites for testing and exploration
3) selling off identified oil resources (6)

c) For the project described above initial costs of $20m will be incurred. Costs of $20m will be incurred in carrying out the exploration and test drilling and results will be available in 1 year.

The overall probability of finding oil reserves is only 50%

The probability of finding different sizes of oil reserves is given below. The NPVs associated with finding oil and selling it to a larger oil corporation depends on the various oil prices per barrel at the time of fining the oil reserves.

The current oil price is $70 per barrel. There is a 1/3 chance that the oil price will be each of $40, $70 or $100 per barrel after 1 year.

		Oil price $70	Oil price $100	Oil price $40
i) small find	60%	$150m	$450m	$30m
ii) big find	25%	$250m	$750m	$50m
iii) jackpot find	15%	$1000m	$3000m	$200m

If additional testing of the drilling area is carried out pre rights negotiations at an additional cost of $10m, the probability of successfully finding of oil increases from 50% to 60% with the relative probabilities relating to the size of the oil deposits remaining the same.

Calculate the expected profit or loss on the project and whether the additional testing should be carried out. (6)

d) Discuss the relative advantages and disadvantages of using the NPV and IRR approaches for capital project appraisal. (4)

[20]

Q 18) **a)** What is convention of materiality? (2)

b) From the following trial balance of XYZ Ltd prepare trading and Profit & Loss Account for the year ended 31st December 2008 and a balance sheet on that date –

Trial Balance –

Dr		**Cr**	
Opening Stock	20.000	Sales	2, 70,000
Purchases	80,000	Purchase return	4,000
Sales Return	6,000	Discount	5,200
Carriage Inward	3,600	Sundry creditors	25,000
Carriage Outward	800	Bills Payable	1,800
Wages	42,000	Share Capital	75,000
Salaries	27,500		
Plant & Machinery	90,000		
Furniture	8,000		
Sundry Debtors	52,000		
Bills receivable	2,500		
Cash in hand	24,300		
Traveling expenses	3,700		
Lighting (factory)	1,400		
Rents and taxes	7,200		
General expenses	10,500		
Insurance	1,500		
	3, 81,000		3, 81,000

Adjustments –
1) Stock on 31st December 2008 was valued at Rs 24,000 (Market Value– 30,000)
2) Wages outstanding for December 2008 amounted to Rs 3,000.
3) Salaries outstanding for December 2008 amounted to Rs 2,500.
4) Prepaid insurance amounted to Rs 300.
5) Provide depreciation on plant and machinery at 5% and on furniture at 20%. (18)

[20]

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