

INSTITUTE OF ACTUARIES OF INDIA

EXAMINATIONS

22nd November 2012

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** Please check if you have received complete Question Paper and no page is missing. If so, kindly get new set of Question Paper from the Invigilator.

AT THE END OF THE EXAMINATION

Please return your answer book and this question paper to the supervisor separately.

- Q.1)** To calculate taxable profit out of accounting profit which of the following adjustments is NOT correct?
- [i] Adding back fines for illegal acts
 - [ii] Adding back depreciation
 - [iii] Deducting capital allowances
 - [iv] Deducting interest on debentures
- [2]**
- Q.2)** Which of the following statement is TRUE for a limited liability partnership (LLP)?
- [i] Any firm consisting of 2 or more members
 - [ii] Any firm consisting of 2 or more partners
 - [iii] Any firm consisting of 2 or more directors
 - [iv] Any firm consisting of 2 or more shareholders
- [2]**
- Q.3)** Which of the following statement is false for open ended investment companies?
- [i] They issue shares on a stock exchange
 - [ii] The price for their shares is determined like a unit trust
 - [iii] There is a bid/offer spread in their shares
 - [iv] They use shareholder money to invest in other companies
- [2]**
- Q.4)** Which of the following statements is/are true?
- [i] If a project has a large amount of systematic risk, then the discount rate used to value the cash-flows should be raised to reflect the risk.
 - [ii] A large, well-diversified portfolio of projects should have little or no specific risk.
 - [iii] No amount of diversification can remove the systematic risk involved in a project.
- [a] [i] only
 - [b] [ii] and [iii] only
 - [c] [i] and [iii] only
 - [d] all of the above
- [2]**
- Q.5)** Which of the following is not a concessionary method of obtaining a listing?
- [i] Offer for sale
 - [ii] Offer for subscription
 - [iii] Placing
 - [iv] Introduction
- [2]**
- Q.6)** Revaluation of land & buildings defies which accounting concept?
- [i] Consistency
 - [ii] Cost
 - [iii] Realisation
 - [iv] Accruals
- [2]**

- Q.7)** In India, in most cases of long term capital gains on sale of assets, capital gains tax is levied on
- [i] Indexed purchase price.
 - [ii] Sales price (less) purchase price.
 - [iii] Sales price (less) purchase price (less) expenses incurred to complete the sale (e.g. brokerage, commission etc.)
 - [iv] None of the above. [2]
- Q.8)** For which of the following reasons is an interest rate swap not used?
- [i] To convert a floating rate loan into a fixed rate loan.
 - [ii] To bet on the direction of future movement in interest rates.
 - [iii] To match assets and liabilities in different currencies.
 - [iv] To reduce the cost of debt. [2]
- Q.9)** Under the capital asset pricing model (CAPM), the cost of equity is not related to the:
- [i] Risk free rate of interest
 - [ii] Market risk premium
 - [iii] Diversifiable risk
 - [iv] Non-diversifiable risk [2]
- Q.10)** If sales are Rs. 20,00,000; Gross profit ratio is 10%; value of closing inventory is Rs. 2,10,000 and value of opening inventory is Rs. 1,90,000; then the stock turnover period is (assume a year with 360 days)?
- [i] 9 times
 - [ii] 40 days
 - [iii] 37.8 days
 - [iv] 38 days [2]
- Q.11)**
- [i] Which are the two distinct ways in which equity shareholders could be rewarded without any immediate cash outflow for the company? (1)
 - [ii] Define share buyback, and give possible reasons why a company would generally opt for a share buyback. (2)
 - [iii] List the four ways in which a share buyback may be implemented. (2)
 - [iv] Explain the purpose of a scrip issue. (4)
 - [v] Explain the downside of a scrip issue. (1) [10]

- Q.12)** Armstrong Ltd. has provided you with the following statement of financial position as on 31st March 2011.

Armstrong Ltd.
Statement of financial position as on 31st March 2011

Particulars	Figures in '000	
	Amount (Rs.)	Amount (Rs.)
Non current assets (Building)		1,050,000
Investments		1,550,000
<u>Current assets</u>		6,700,000
Trade receivables	4,025,000	
Inventory	2,519,000	
Prepaid insurance	17,000	
Cash and bank balance	139,000	
TOTAL OF ASSETS		9,300,000
Share Capital		5,000,000
Reserves and surplus		500,000
<u>Long Term Loans</u>		1,035,000
Loan from Creative Bank	1,035,000	
<u>Current liabilities</u>		2,765,000
Trade payables	2,520,000	
Outstanding salary	35,000	
Deposit from Shahrukh Ltd.	210,000	
TOTAL OF LIABILITIES		9,300,000

Armstrong Ltd. has appointed you as its new Accounts Manager after the previous Manager has resigned. The Director has provided you with the Consolidated Receipts and Payments account for the year ended on 31st March 2012 as was prepared by the previous Manager before he left.

Consolidated Receipts and Payments Account for the year ended 31st March 2012

Figures in '000

Receipts	Amount (Rs.)	Payments	Amount (Rs.)
Opening balance	139,000	Shahrukh Ltd.	135,000
Cash sales	2,520,000	Salaries	895,000
Amitabh Ltd.	500,000	Cash purchases	1,502,000
Trade receivables	9,025,000	Octroi charges	30,000
Sale of investments	495,000	Repairs and maintenance	27,500
		Creative bank loan	1,060,000
		Trade payables	6,040,000
		Freight and taxes	9,300
		Postage and stationary	15,650
		Electricity charges	24,050
		Insurance	38,000
		Legal charges	48,000
		Audit fees	30,000
		Entertainment expenses	95,000
		Machinery	1,320,000
		Advertisement expenses	35,450
		Investments purchased	423,400
		Loading and unloading charges	23,650
		Wages	700,000
		Travelling	55,000
		Miscellaneous expenses	20,000
		Closing balance	152,000
TOTAL	12,679,000	TOTAL	12,679,000

Note: A Receipts and payment account is simply the consolidated cash and bank account wherein Receipts (left side) represents the actual amounts received on account of different inflows and the Payments (Right side) represents the actual amounts paid on account of different heads. They may or may not entirely pertain to the current accounting period.

Based on your analysis and study after joining and the information provided by the Director, you realise that the following adjustments must also be given effect while preparing the Income Statement for the year ended 31st March 2012 and the Statement of financial position as on that date.

- 1) Balances as on 31st March 2012.
 - [a] Inventory Rs. 1,826,250,000
 - [b] Salary paid in Advance Rs. 35,000,000

[c] Trade Payables Rs. 2,901,000,000

- 2) Credit Sales during the year was Rs. 9,950,000,000.
- 3) Of the total trade receivables as on 31st March 2012, a client company from which Rs. 50,000,000 was due became insolvent and the Director feels that nothing would be recoverable from it. He has also asked you to make a provision for doubtful debts @ 2% on balance trade receivables.
- 4) Loan from Creative Bank was paid in full with interest.
- 5) Investments having a book value of Rs. 400,000,000 as on 31st March 2011 were sold during the year for Rs. 495,000,000.
- 6) The current Insurance policy for Building and Inventory expires on 30th September 2012.
- 7) New Machinery was purchased on 1st October 2011. Depreciation should be provided @10% p.a. on machinery.

Additional Information:

- 1) Goods are sold and purchased both on cash and credit.
- 2) Shahrukh Ltd has been the dealer of goods manufactured by Armstrong Ltd. Shahrukh Ltd had maintained an interest free security deposit with Armstrong Ltd. However a part of the deposit was refunded during the accounting period due to favourable credit history.
- 3) Amitabh Ltd. has been newly appointed as a dealer of Armstrong Ltd. An interest free security deposit has been received from them during the accounting period.

You are required to prepare the following:

- [i] Statement showing calculation of total purchases during the year (cash and credit combined together). (2)
- [ii] Statement showing calculation of trade receivables balance before provision for doubtful debts as on 31st March 2012. (2)
- [iii] Statement showing balance of investment as on 31st March 2012 and profit on sale of investment. (1.5)
- [iv] Statement showing amount of salary and insurance expenses incurred for the year ended on 31st March 2012. (2)

[v] Income statement for the year ended 31st March 2012. (8.5)

[vi] Statement of financial position of Armstrong Ltd. as on 31st March 2012. (6) [22]

- Q.13)** [i] Define the following
- [a] Companies limited by guarantee (1)
 - [b] Close company (1)
 - [c] Sleeping partner (dormant partner) (1)

[ii] Sachin Limited has provided you the following statement of financial position as on 31st March 2012.

Particulars	Amount (Rs.)	Amount (Rs.)
Non Current Assets		2,200
Investments		100
Current Assets		1,710
Trade receivables	1300	
Inventory	400	
Cash and bank balance	10	
TOTAL OF ASSETS		4,010
Share capital		650
Reserves and surplus		610
Long term loans		250
Current liabilities		2500
TOTAL OF LIABILITIES		4,010

The Managing Director of the company is extremely concerned about the low cash balance in spite of the fact that the company has made record profits during the past year. Sachin Limited has undergone massive growth in the last few years. He has sought your expert advice on the following matters:

- [a] What could be the potential reasons for the cash shortage? What other problems do you consider might exist? (3)
- [b] How could the situation be corrected and avoided in the future? (4) [10]

Q.14) The MIT (educational institute) has residence strength of 786 students. In addition to other basic amenities, MIT provides hot water during the 3 months in winter. It has two boilers which operate alternatively in the morning and evening and use Kerosene oil as fuel.

The operational duration of one boiler in the morning is 3 hours and 2 hours in the evening in November and January. Due to the winter vacation in December operational duration of the boilers is 1.5 hours in the morning and evening. Fuel consumption per hour is 10 litres @ Rs. 15 per litre.

One worker operates the boiler in mornings and evenings. The daily labour cost is Rs. 100. The maintenance cost is Rs. 4000.

To promote green energy the MIT wishes to set up solar heaters instead of conventional heaters.

The operating parameters of the green proposal are estimated as:

- 1 Solar heaters required :10@ Rs. 15000 each
- 2 Per heater installation cost: Rs. 2000
- 3 Annual maintenance cost: Rs. 3000
- 4 Salvage costs of both existing boilers: Rs. 3000
- 5 Useful life 10 year with zero salvage value

MIT purchases the fuel on the first day of the season. The option is considered in November month.

- [i] Evaluate the financial viability of green proposal @ 12% RDR. You should make appropriate and rational assumptions if necessary. (16)
- [ii] Explain the non-financial considerations involved in making the decision (4) [20]

- Q.15)** CFO Mr. Neeraj Garg of Nandani Enterprise Ltd has been trying to develop a financial plan for the upcoming board meeting. He is in discussion with sales head who has developed the following estimates (in lakh of units).

	Year			
	1	2	3	4
Sales	300	360	450	630
Non-current assets (net)	240	285	330	375

For planning purposes he has also made the following estimates and assumptions:

Cost of goods sold (% of sales)	70
Return on sales (after tax)%	10
Dividend payout ratio%	50
Turnover (times) based on year-end sales values:	
Cash and debtors	4
Inventory	3
Required current ratio	2:1
Required ratio of long term debt to equity	0.5

At the beginning of year 1, the firm is expected to have equity capital of 180 lacs and long term debt of 90 lacs.

Determine how much additional equity capital if any, the company will have to issue each year if the CFO's assumptions are correct.

[18]
