INSTITUTE OF ACTUARIES OF INDIA

EXAMINATIONS

23rd May 2013

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) Depreciation is an application of which of the following concepts?

A) Going Concern
B) Accrual
C) Prudence
D) Matching

[2]

Q. 2) Which of the following taxes might you pay on a commercial property held in India?

I) Stamp Duty
II) Property tax
III) Income tax
IV) Service Tax

A) I) and II)
B) I), II) and IV)
C) I), II) and III)
D) All of the above.

[2]

Q. 3) The face value of a one year bond is 1,000 and the rate of interest on the bond is 10%. The current market value of the bond is 850 and is expected to rise to 900 in 10 days' time. What is the nominal value of this bond?

A) 900
B) 1,000
C) 850
D) 900

[2]

Q. 4) Which of the following can be traded between one investor and another?

A) Bank overdraft
B) Trade credit
C) Factoring
D) Commercial paper

[2]

Q. 5) Which of the following is the correct formula of the weighted average cost of capital?

A)

$$\left(\frac{\text{Market Value (MV) of Debt}}{\text{MV of (Debt + Equity)}}\right) \times \left(\text{Net cost of debt}\right) + \left(\frac{\text{MV of Equity}}{\text{MV of (debt + equity)}}\right) \times \left(\text{Cost of equity}\right)$$

B)

$$\left(\frac{\text{MV of Debt}}{\text{MV of (Debt + Equity)}}\right) \times \left(\text{Gross Cost of debt}\right) + \left(\frac{\text{MV of Equity}}{\text{MV of (Debt + Equity)}}\right) \times \left(\text{Cost of equity}\right)$$

C)

$$\left(\frac{\text{Book value (BV) of Debt}}{\text{BV of (Debt + Equity)}}\right) \times \left(\text{Gross Cost of debt}\right) + \left(\frac{\text{BV of Equity}}{\text{BV of (Debt + Equity)}}\right) \times \left(\text{Cost of equity}\right)$$

D)

$$\left(\frac{\text{BV of Debt}}{\text{BV of (Debt + Equity)}}\right) \times \left(\text{Net Cost of debt}\right) + \left(\frac{\text{BV of Equity}}{\text{BV of (Debt + Equity)}}\right) \times \left(\text{Cost of equity}\right)$$

[2]

Q. 6) ABC is an expanding mutual fund. The total assets of the ABC mutual fund are 25 crore and the number of units are 5 crore. If the bid offer spread is 5% and the offer price is 5.3684 then what is the bid price?

A) 5.6368
B) 5.1000
C) 5.0000
D) 5.2631

[2]

Q. 7) For a company registered in the USA, in which currency can a Eurobond issue be made?

I) Euro
II) British pounds (GBP)
III) Japanese Yen

A) I) and II)
B) I) only
C) All of the above
D) I) and III)

[2]

Q. 8) Mr. Clarke holds 100 shares in Watson Ltd which are currently priced at Rs 200 per share. Watson Ltd decides to go for a right issue of 1 for 10 at an offer price of Rs. 160. What is the theoretical value of the nil-paid rights for every 10 shares originally held by Mr. Clarke?

A) Rs 364.00
B) Rs. 196.36
C) Rs. 3.64
D) Rs. 36.36

[2]

Q. 9) Which of the following securities has the highest turnover on the London stock exchange?

A) Gilts
B) Ordinary shares
C) Preference shares
D) Debentures

[2]

Q. 10) Risk mitigation in a capital project will lead to

A) Increase in NPV
B) Decrease in NPV
C) Increase or decrease in NPV
D) None of the above

[2]

Q. 11) **i)** Explain the primary difference between a mortgage debenture and floating charge debenture?

(2)

ii) Explain the remedies available to the holders of following financial instruments in the case of default by the issuing company:

a) Floating charge debentures &mortgage debentures (3.5)

b) Unsecured loan stock (1.5)

iii) A friend states that "unsecured loan stock is an extremely risky asset and hence best avoided. It is very certain that the holder will lose his capital." Counter-argue the statement. (4)

[11]

Q. 12) Briefly explain the factors that can influence the dividend policy of a company

[3]

Q. 13) Mr Shroff, the finance director of Vettel Ltd, has been invited to deliver a speech on fair value accounting and the limitation of preparing the financial statements on the historical cost basis. You report to him and he has asked for your help to identify the drawbacks of historical cost accounting.

Draft the points that you will set out in your report (with a brief explanation) on the drawbacks of historical cost accounting so that he could use it to prepare his presentation.

[6]

Q. 14) A newly qualified actuary is starting an actuarial consultancy. In order to start the consultancy she needs large amount of capital for the purchase of property and furniture.

She decides to borrow quite heavily. However she is worried about the risk of losing her personal assets in case of business liabilities. A friend has suggested incorporating this business as a limited company in order to avoid all personal risk associated with business liabilities. Explain whether incorporation as a limited company would be likely to be a cost-effective way of avoiding personal liability for the consultancy s borrowings.

[4]

Q. 15) **a)** Define the functions of the Reserve bank of India (3)

b) Describe the impact of an increase in interest rate on the domestic economy (both the personal and business sectors). (6)

[9]

Q. 16) TATA and Air-Asia formed a joint venture (JV) to launch an airline company in India. Together they have injected capital of 100 crores.

The JV has requirement for 10 planes. It has two options: to either purchase the planes or take them on lease.

The price of one plane is 25 crores and lease rent is 5 crores per plane with an annual fixed cumulative increase of 5%.

To purchase the planes, the JV needs to borrow 250 crores. The rate of interest on the loan is 10%per annum (p.a.).The loan is repayable only at the end of the loan tenure.

The JV can pay lease rent from capital.

The corporation tax rate is 30%.

The life of each plane is 5 years.

Depreciation on each plane is 10% per annum using the reducing value method.

The scrap value of each plane at the end of 5 years is the same as the book value of the plane.

The company's financial managers are expecting the economy to grow at either 7% p.a. or 8% p.a.. The probability of each growth rate is 0.6 and 0.4 respectively.

Expected sales revenue in crores:

Year	**7% Growth rate**	**8% Growth rate**
1	250	275
2	260	285
3	270	295
4	280	305
5	290	315

Operating expenses are 60% of the revenue.

Fixed costs are 5 crore p.a.

For the calculation of Net Present Value (NPV) the risk discount rate being used is 15%.

a) Explain why capital budgeting decision is so important. (2.5)

b) Calculate the NPV of the project and comment on whether the project is viable. Assuming it is viable, explain whether the JV should opt for lease or purchase of the planes and why? (22.5)

[25]

Q. 17) MAB Ltd is a manufacturing company. You have been requested to help MAB Ltd to prepare its financial statements for the year ended on 31st March 2013. The following balances have been extracted from their book-keeping records

Balances as on 31st March 2013	**Dr. Rs. '000**	**Cr. Rs. '000**
Share capital (1,500,000 shares of Rs. 10 each)		15,000
Sales		4,45,000
Inventory	12,250	
Wages	56,750	
Trade payables		50,450
Equity share application A/c		7,200
Advertising	4,190	
Salaries	13,875	
Purchases	2,45,400	
Auditor's fees	1,290	
Trade receivables	1,05,300	
Office expenses	4,200	
Directors' remuneration	2,150	
HSFC Loan		20,150
Retained earnings		60,700
Building	25,000	
Plant and machinery	85,000	
Depreciation Reserve on Building		6,200
Depreciation Reserve on Plant and machinery		20,700
Investments	3,200	
Cash and bank balances	20,850	
Ouststanding wages		1,750
Returns inward	3,850	
Transport outward charges	15,750	
Octroi charges	4,800	
Electricity expenses	20,495	
Entertainment expenses	2,800	
Total	**6,27,150**	**6,27,150**

Additional information provided:

1) Physical counting of inventory in godowns and at the manufacturing unit revealed that the inventory was worth Rs.13,975,000 (based on the manufacturing cost) as on 31st March 2013.

2) Depreciation to be provided as follows:
   Building- 5% on reducing balance
   Plant and machinery- 10% on reducing balance

3) On 1st October 2012, MAB Ltd. issued 400,000 fresh equity shares having a face value of Rs 10 each at a premium of Rs 8 per share. The issue was

fully subscribed and the amounts fully received. The entire amount was booked in the Equity share application A/c. Since the share issue process is now fully complete, you have been asked to make appropriate adjustments when preparing the financial statements.

4) Outstanding wages on 31st March 2012 were Rs1,750,000 and were appropriately allowed for when preparing financial statements as on 31st March 2012. They were subsequently paid in the current financial year with no outstanding amounts as on 31st March 2013. However the payment was wrongly booked under Wages A/c.

5) M/s Olympus & Sons(a sole proprietory concern owned by Mr. D'souza) was one of the company's customers. His account had a debit balance of Rs.1,150,000 as on 1st April 2012. Goods having sales value of Rs. 8,420,000 were sold to him during the year with the last dispatch being made to him on 26th March 2013 for goods having a sales value of Rs.1,020,000. On 28th March 2013, MAB Ltd. received information that Mr. D'souza was declared insolvent and it was estimated that only 50% of the balance due could be recovered from his estate. The last dispatch made, was still in transit. In order to avoid further bad debts, MAB Ltd called up the transporter and asked him to cancel delivery and return the goods to MAB Ltd's godown. As on 31st March 2013, the goods were still in transit and would be received at the company's godown not before 2nd April 2013. It was the company's general practice to charge M/s Olympus & Sons 20% profit on the manufacturing cost. During the entire financial year payments for Rs 5,000,000 were received from M/s Olympus &Sons, which was properly accounted for.

6) The company is situated in an under-developed area of the country and will lead to employment opportunities for the local people. Hence the government has exempted the company from paying any taxes for 10 years. MAB Ltd was established in 2008.

Required:

a) Calculate the amount of the provision for bad debts to be made with respect to M/s Olympus & Sons. (3)

b) Prepare an income statement for the year ended on 31st March 2013. (10)

c) Prepare a statement of financial position as on 31st March 2013. (7)

d) Calculate the EPS for the year ended on 31st March 2013. (2)

The financial statements should be in a form suitable for publication in so far as it is possible from the information provided

You should state in your answer any assumptions which you make **[22]**

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