INSTITUTE OF ACTUARIES OF INDIA

EXAMINATIONS

2nd September 2021

Subject CB1 – Business Finance

Time allowed: 3 Hours 30 Minutes (09.30 – 13.00 Hours)

Total Marks: 100

Q .1) A manufacturing company showing a consistent PAT but is facing significant reduction in its working capital position. Which of the following events best explains this divergence?

a. The company has devalued the value of holding in its subsidiary due to an economic downturn.
b. The company has increased the credit period to its customers during this period.
c. The company has declared significant dividends in the last few years.
d. The company has been unable to use a major chunk of the inventory purchased during the previous years.
e. The company has issued floating rate debt during a period of rising interest rates.

[2]

Q. 2) Company ABC has made Rs.10 cr. profit in 2020-21. It is expected that the company will continue to increase its profit by 10% in each year. On 31st March 2025, the Company is expected to have a terminal value of Rs.50 cr. What is the value of the Company as at March 2022, if the interest rate in the market is 5% p.a.?

a. Rs.86 cr
b. Rs.79 cr
c. Rs.85 cr
d. Rs.50 cr

[2]

Q. 3) Mr. X has a business which is not listed on stock exchange. So he raised a debt of Rs.5cr from Mr. Y and promised to repay it in June 2021 to expand his business. However, he has been unable to repay it on time. So, Mr. Y has filed a legal suit against Mr. X to get ownership of Mr. X's house worth Rs.5 cr. However, the court ruled the case in favor of Mr. X. Why was the decision in favor of Mr. X?

a. Mr. Y should allow him more time to repay the debt
b. Mr. X has a public limited company
c. Mr. Y should have asked for a guarantee before lending the money
d. Mr. X has a private limited company

[2]

Q. 4) Which of the following risk is systematic in nature?

a. Customer concentration risk for a company dealing with manufacture of base metal commodities
b. Credit risk arising from small scale loans granted by microfinance institutions
c. Cybersecurity risk arising from ransomware attacks
d. Country risk for an offshore hedge fund dealing with global equities
e. Natural risk of earthquake like catastrophes for a global re-insurer.

[2]

Q. 5) The following financial items are not considered while computing tax liability of a Company:

a. Dividend received
b. Revenue
c. Interest paid
d. Dividend paid

[2]

Q. 6) Which of the following methods of valuing inventory results in the highest overvaluation of an inventory item when it's prices are falling?

a. LIFO
b. FIFO
c. Weighted average
d. Net realizable value
e. CAPM

[2]

Q. 7) The share price of Company XYZ Ltd. is currently Rs.100. The Company is now offering 1-for-2 rights issue to all its existing shareholders at Rs.60. The 2 shareholders Mr. A & Mr. B react differently to the rights issue:

Mr. A holds 100 shares and exercises his option for 50% of his holding

Mr. B holds 50 shares and does not exercise his option at all

What is value of holding for Mr. A & Mr. B after the rights issue?

a. Mr. A Rs.10,833 and Mr. B Rs.5,000
b. Mr. A Rs.10,833 and Mr. B Rs.4,333
c. Mr. A Rs.12,000 and Mr. B Rs.4,000
d. Mr. A Rs.13,000 and Mr. B Rs.4,333

[2]

Q. 8) Company ABC is planning to acquire Company XYZ for a value of Rs.100 million in an all cash deal. Company XYZ has a net worth of Rs.120 million according to its financial statement on the date of takeover. The difference of Rs.20 million can be attributed in ABC's book as:

a. Goodwill
b. Revaluation reserve
c. Non-current asset
d. Negative goodwill
e. Current Asset

[2]

Q. 9) What is not a motive for growth:

a. Higher integrity
b. Increased profits
c. Lower risks of predating competitors
d. Stable workforce

[2]

Q. 10) A smartphone distributor having multiple stores across the country has decided that instead of setting a budget for each store, it will allow stores to compete with one another for sales & profitability. Which of the following best describes its approach?

a. Zero based budgeting
b. Incremental budgeting
c. Budget flex
d. Static budgeting
e. Beyond budgeting

[2]

Q. 11) Justify which principles of accounting are violated in each of the following scenarios:

i) A company has received and recorded the amount as an income of Rs.1000 as revenue, for work to be started & delivered in the next financial year (1.5)

ii) A company has changed its method of recording inventory from last-in-first-out to weighted-average method (1.5)

iii) A company which has fixed assets to the tune of Rs.500 million & an average machinery value of Rs.1 million has decided to write off a 10-year old machinery whose depreciated value amounted to Rs.30 in the financial year (2)

[5]

Q. 12) A new variant of Corona virus has been detected – Corona Omega variant. Your medical research friend has been successful in creating a vaccine to prevent the spread of this virus but he is young and does not have the finances to mass produce it. He recently came across the term Crowdfunding and wants to understand what that means and if that will be the correct method of financing for him. What would your response be? **[5]**

Q. 13) Mr. X started a new business of manufacturing hand sanitizers in the recent lockdown. Having made huge profits from high sales volumes, he is now aiming at growing his business. He has approached you to advice him on what could be possible problems in growing his business. As a Consulting Actuary, what would your advice cover? **[5]**

Q. 14) Company XYZ is looking to go public next financial year but is worried that its current financials would not attract investors. Discuss examples of specific potential ways in which income statement & balance sheet of a company can be manipulated by its directors to show a rosy picture of the company. **[5]**

Q. 15) For a private limited company ABC, the weighted average cost of capital has been 8.0%. Currently the company has a gearing ratio of 1:2 with a beta of 1.5. It has raised its debt at net cost of 3% p.a. and has equity risk premium at 6% p.a. Now an investor has agreed to provide additional debt, to achieve a gearing ratio of 1:1. Everything else being same, what would be the revised weighted average cost of capital for Company ABC? Should the Company consider this proposal of the investor? **[5]**

Q. 16) Company XYZ is a cloth manufacturing company giving out 20% dividend consistently to its shareholders for the last few years. Due to the current recession-like scenario, the whole cloth industry has made losses, however XYZ has made marginal profits by cutting down expenses and maintain continuous stream of sales via online platforms. Towards the year end, the CFO of the company has asked you to consult on whether they should provide meagre dividends in current year or no dividends. What all would you consider to provide this advice? **[5]**

Q. 17) Discuss the assertion that the cash-flow statement is unnecessary because it is easy to see whether the closing bank balance is higher or lower than the opening balance. **[5]**

Q. 18) Discuss the advantages and disadvantages of showing properties at their current valuation rather than at cost less depreciation. **[5]**

Q. 19) With the following information about XYZ private limited:

i) Prepare the income statement & balance sheet of XYZ. (18)

ii) Calculate the breakeven sale for XYZ. (2)

Particulars	**Amount Rs.**
Trade receivables	20,000
Trade Payables	30,000
Wages & Allowances	20,000
Staff Salaries	10,000
Land (previous year closing balance)	40,000
Building (previous year closing balance)	50,000
Plant & Machinery (previous year closing balance)	100,000
Debtor Turnover Days	45.6250
Supplier Turnover Days	91.2500
Debt Equity Ratio	1.45625
Gross Profit Margin	25.00%
Quick Ratio	0.7500
Current Ratio	1.2500
Earnings Per Share	1.1050
Interest Coverage Ratio	1.8125
Asset Utilization Ratio	400 / 393

- The company mostly sells on credit with an assumed credit period of 40 days, but actual payments have tended to vary in the past. For new customers acquired during the year, the company has insisted on payment upfront at the time of invoicing. New customers accounted for 20% of total sales.
- All purchases are credit purchases
- The company purchases & sells only in cost-insurance-freight terms. CIF is charged at flat 4% of all invoices.
- Equity shares have a face value of Rs.10
- The company has issued long term debt the previous financial year, due in 3 financial years. It pays an annual interest of 10% on this debt.
- Marketing commission related to sale of products amounted to 3% of sales
- The company still has tax dues of Rs. 9,025 accumulated from previous years
- Corporate tax is charged @ 15% of PBT
- Building is depreciated @ 5% p.a and machinery @ 10% p.a.
- There was a sale of machinery with a book value of Rs. 10,000 for Rs. 12,000 in the first day of the financial year & machinery worth Rs. 20,000 was purchased on the same day

Assume:

- 365 days in a year
- Current assets only comprise of cash & bank balance, inventory & trade receivables
- Debt equity ratio = debt/owner's equity
- Depreciation is calculated using written down value method for all assets

[20]

Q. 20) Your Company owns the new cricket stadium built 5 years ago, which enjoys a pleasant weather for only half the year. The cost of building the stadium was Rs.4 cr and the company has been making Rs.40 lac of profit consistently each year. Your investors have started questioning the success of this project as they were promised their money back in 10 years and have asked you to re-evaluate this project.

Capacity of the stadium: 500 seats
No. of matches played in a year: 40
Price per ticket just got increased to RS 500 and gets increase once every 3 years by 10%

Occupancy of the stadium depends upon weather conditions, if its pleasant the stadium is house full, else only 20% full.

Use a discount rate of 5% p.a.

i) You delegated this exercise to a newly joined intern, who confirmed that the NPV of the project over the next 5 years is Rs.4.5 cr. Review and confirm if the intern's calculations are correct. (7)

ii) Is NPV the best measure of this problem? If not, which would be better and why? (3)

iii) Calculate the appropriate statistic, considering value of profits paid back to the investors is Rs.1.73 cr. (6)

iv) Comment on whether the project is successful. (1)

v) How much will current entry fees have to be increased to breakeven in 2 years, if discounted value of cost is Rs.29 lac? (3)

[20]

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