

INSTITUTE OF ACTUARIES OF INDIA

EXAMINATIONS

21st November 2023

Subject CB1 – Business Finance

Time allowed: 3 Hours 15 Minutes (10.15 – 13.30 Hours)

Total Marks: 100

INSTRUCTIONS TO THE CANDIDATES

- 1. Please read the instructions inside the cover 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. This Question Paper includes 10 multiple choice questions, carrying 2 marks each. Candidates are expected to only provide option number as the answer. For numeric questions, a short working will be expected to attain full marks.*
- 4. 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.*
- 5. 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. You are not allowed to carry the question paper in any form with you.

- Q. 1)** A company owns a property that costs ₹12 crores and it has been revalued recently to ₹ 16 crores. The property has been depreciated by ₹ 2 crores. What figure will appear in the revaluation reserve for this asset?
- A. ₹ 16 crores
 - B. ₹ 14 crores
 - C. ₹ 10 crores
 - D. ₹ 6 crores
- [2]**
- Q. 2)** A company's beta coefficient is 1.5 and it has a 30% gearing ratio. What would be the effect on beta if the corporation tax rate is increased?
- A. Beta will increase in same proportion of increase in corporation tax.
 - B. Beta would decrease.
 - C. Beta would increase.
 - D. Beta would remain the same.
- [2]**
- Q. 3)** Which of the following is not true about Floating-Rate Notes (FRNs)?
- A. FRNs are medium-term debt securities issued in the Euro market.
 - B. Interest payments of FRNs float with short-term interest rates.
 - C. The issuer of FRNs needs to estimate the likely levels of future inflation and interest rates when issuing the notes.
 - D. The lender does not require an inflation risk premium.
- [2]**
- Q. 4)** A parent company P owns a 25% holding in an associate company A. A's profit for the year is ₹10 crores and it has paid a dividend of ₹5 crores. How much income will appear in the parent's consolidated profit or loss statement in respect of this associate company A?
- A. ₹10 crores
 - B. ₹5 crores
 - C. ₹1.25 crores
 - D. ₹2.5 crores
- [2]**
- Q. 5)** Which of the following is not true about Top-down budgeting approach?
- A. Corporate targets form the basis of budgets for smaller units and finally to individual departments.
 - B. Targets are set such that the board of directors believe in the company's interest.
 - C. The approach is more likely to involve negotiations before finalization of final targets.
 - D. Line Managers may believe that they cannot achieve the targets that have been set.
- [2]**

- Q. 6)** All of the shares are held by the Executive Directors of ABC and they are actively involved in running of the business. Which of the following statements are correct?
- I.** Problems associated with accountability and agency theory are avoided.
 - II.** It is difficult to obtain stock market quotation.
 - III.** There is no conflict between the interest of the owners and the manager of the business, so there is more risk of dysfunctional behaviour on the part of the directors.
- A.** Only I and II are correct.
 - B.** Only I and III is correct.
 - C.** Only III is correct.
 - D.** Only II and III are correct. [2]
- Q. 7)** A project has net present value of zero if it is evaluated at its required rate of return of 10%. How this finding can be interpreted?
- A.** The project needs to be reassessed with higher rate of return.
 - B.** The project gives an internal rate of return of 10% and may be acceptable.
 - C.** The project needs to be rejected as net present value is zero.
 - D.** The project should be reassessed with lower rate of return. [2]
- Q. 8)** During the recent financial year the company has the following items in its books (figures in crores):
- | | |
|--------------------|-----|
| Cash sales | 50 |
| Credit sales | 120 |
| Trade receivables | 90 |
| Sundry receivables | 5 |
- The trade receivables turnover period is
- A.** 289 days
 - B.** 204 days
 - C.** 274 days
 - D.** 193 days [2]
- Q. 9)** Which of the statement is false about Economic Value Added (EVA)?
- A.** EVA is a measure of company's financial performance.
 - B.** EVA evaluates management performance by comparing net operating profit during the year to the firm's total cost of capital.
 - C.** If the firm's net profit exceeds the firm's cost of capital, it has a positive EVA for the year.

D. EVA is similar to calculating Internal Rate of Return (IRR) of an investment project. [2]

Q. 10) Large cash reserves or ‘war chest’ may be seen by investors negatively. Why?

A. Cash may later be used for a large aggressive takeover bid.

B. The Company may use it during uncertain times.

C. The war chest may get invested in risky assets.

D. It is a sign that the Company is not using its capital effectively. [2]

Q. 11)

i) Provide formula for the following ratios and explain its main limitations:

a) Income Cover (1.5)

b) Asset Cover (1.5)

ii) The following ratios have been taken from financial statements of two companies. The company A Ltd and B Ltd are of similar size and in same line of business:

	A Ltd	B Ltd
Gross Profit Ratio	30%	20%
Net Profit Ratio	23%	18%
Return on capital employed	12%	16%

Explain which of the two companies are more profitable and give possible reasons? (3)
[6]

Q. 12) Ram and Shyam met at a party one week back and immediately decided to start a business which helps customers hire trusted professionals for home cleaning services. Customers have to download an app and hire services. Both, Ram and Shyam have decided to work full time and contribute equally to the success and profitability of the firm. The initial setup cost is shared between Ram and Shyam in 80:20 proportion. Ram is of the opinion to set up this business as partnership firm. Whereas Shyam argues to set it as a limited company.

i) What are the relative advantages and disadvantages of setting this business as partnership firm and as a limited company? (5)

ii) If both agree to incorporate the business as a limited company, describe how to organize their interests in terms of Ram’s initial investment and how can equal sharing of profits and losses be ensured? (5)
[10]

Q. 13) The company which has a beta coefficient of 1.8 and a market capitalization of 90 crores is entirely financed by equity. The director of the company feels that its beta coefficient is high and also believes that reducing beta will improve the company’s market capitalization.

So, the director proposes to invest in a new line of business which is significantly different from the present business to ensure greater diversification effect.

The director intends to borrow 32 crores with 9% interest and invest in the new business venture. The beta co-efficient of the industries in this new business sectors is around 1.2.

The risk-free rate of return is 5% and market risk premium is 7%. The company's tax rate is 23% effectively.

i) Use the Capital Asset Pricing Model (CAPM) to:

- a) Calculate the company's present cost of equity.
- b) Estimate the company's ungeared beta, assuming that it proceeds with the investment.
- c) Estimate the company's geared beta, assuming that it proceeds with the investment.
- d) Determine the company's weighted average cost of capital to proceed with the investment, using the results of your other calculations and estimates.

(6)

ii) Explain why the director may not be correct in the belief that the additional diversification effect due to the investment in the new venture is more valuable for the shareholders.

(5)

[11]

Q. 14) Some companies issue variations of the basic ordinary shares.

i) List any 4 types of variations.

(2)

ii) Explain each in brief.

(4)

[6]

Q. 15) A graduate student joins as an intern in Dio company which uses swaps to manage its business. You are another employee who has just celebrated your first work anniversary in the company. Your manager has asked you to explain in brief the use of swaps to newly joined. Explain in detail.

[9]

Q. 16) The family of the company ABC's founder owns most of the share capital. The directors of ABC have identified new opportunities for expansion which require large sum to be invested to take advantage of it. The ABC has borrowed heavily in the past. The existing investors will not be able to invest further in the company. Finance directors of the company are identifying new ways of raising finance. One of finance director of ABC says to obtain a stock exchange quotation. You are hired as a last-minute consultant. Suggest which is most appropriate method to issue share capital and explain why?

[6]

Q. 17) The financial markets provide useful information for the financial managers while making decisions on sources of finance and investment projects. What may be some effects of the capital markets on the firm's decision-making process?

[4]

Q. 18) A1-Fashion is a small company selling the latest styles of dresses for men. Within a couple of years of starting their business, they have become a well-known brand in their state. Company is planning to expand its business in all the states of India. What could be the reasons that they may not be as successful in other states as in their original state?

[5]

Q. 19) The following entries were taken from the book of HH Insurance co Ltd, which is in Health Insurance business.

Particular	Amount (in ₹)	Particular	Amount (in ₹)
Risk Reserve carried forward (as on 31st March 2022)	10,23,000	Commission on direct business	3,29,755
General reserve	49,500	Commission on reinsurance accepted	66,042
Investments	33,82,500	Outstanding Premium on direct business	24,530
Premium	29,71,686	Total expense of management for health products	4,75,142
Claims paid	6,63,097	Audit Fees	39,600
Share capital	9,90,000	Rates and Taxes	6,384
P & L Account (cr.)	82,500	Rents	74,250
Re-insurance Premium on reinsurance ceded	1,23,778	Income from investments	1,68,300
Claims recovered from re-insures	23,231	Sundry creditors	24,751
Commission on reinsurance ceded	52,818	Cash in hand and Bank balances	2,00,708

The further information are as follows:

- Expense of management includes ₹39,600 of legal expense and survey fees.
- Expense relating to claim is ₹22,000.
- Claim intimated but not paid as at 31st March 2023 is ₹1,14,400.
- Income tax is provisioned @40% and dividend distribution tax is provisioned @12%.
- Transfer to be made from Current profit to General reserve is ₹2,20,000.
- Additional reserve for Unexpired risk is @40% of the net premium income.
- The director has proposed a dividend for this year to be provisioned @36%.

Prepare the Revenue Account, Profit & Loss account and Balance sheet as at 31st March 2023 with appropriate notes wherever applicable.

[23]
