

INSTITUTE OF ACTUARIES OF INDIA

EXAMINATIONS

1st December 2022

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. 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. You are not allowed to carry the question paper in any form with you.

Q. 1) Which of the following defines a limited company's relationship with the outside world?

- A.** Annual Company Reports and Accounts
- B.** Memorandum of Association
- C.** Share Certificate
- D.** Articles of Association

[2]

Q. 2) What does 'crystallizing' mean in debentures?

- A.** When a company fails to make one of the coupon payment or the capital repayment, the stockholder may appoint a receiver to intercept income from the secured asset(s).
- B.** When a company fails to make one of the coupon payments or the capital repayment, the stockholder may take possession of the secured asset to sell it in order to meet their debt.
- C.** When a company fails to make an interest or capital payment, the company can sell or make major alterations to the secured asset only with the mortgage debenture holder's permission.
- D.** When a company fails to make an interest or capital payment, the debenture holders can apply to the courts to convert the floating charge to a fixed charge.

[2]

Q. 3) Which of the following statement is true in case of public limited companies?

- I.** Separation of ownership and management allows share ownership to change without generally interfering with the operations of the business.
 - II.** Limited liability allows large number of people to invest large amounts of money with relatively minimal disclosures.
 - III.** It is subject to information asymmetry across various stakeholders.
 - IV.** It allows the managers of the company to always act in the best interest of the shareholders.
- A.** Only II and III are correct
 - B.** Only I, II and III are correct
 - C.** Only I is correct
 - D.** Only I and III are correct

[2]

Q. 4) Which of the following statement is incorrect?

- A.** An asset-backed security is form of long-term financing.
- B.** Asset-backed securities are securities backed by ring-fenced pools of assets.
- C.** In case of asset-backed security, if ring fenced pool of assets are insufficient to pay interest or capital, the bondholders will be partially defaulted and they can claim against the company itself.
- D.** Assets-backed securities may be backed by car loans, unsecured personal loans, credit cards or other types of loans.

[2]

- Q. 5)** Which of the below statement is not true about shadow banking?
- A.** Shadow banks perform maturity transformation.
 - B.** Shadow banks face the risk of investors losing confidence, which can create liquidity risk.
 - C.** Shadow banks are subject to the reserve and capital requirements.
 - D.** Shadow banks borrow money in the money markets.
- [2]**
- Q. 6)** Which one of the following is a characteristic of future contracts?
- A.** A future gives the right but not the obligation to trade in a specified quantity of a specified asset at a specified price on or before the specified date.
 - B.** A future gives the obligation to trade in a specified quantity of a specified asset at a specified price on or before the specified date.
 - C.** The buyer of future will have to pay a premium to the seller.
 - D.** Only the seller of future has to deposit margin with the clearing house .
- [2]**
- Q. 7)** XYZ is a globally renowned manufacturer of electronic gadgets with headquarters located in India. It uses a network of subsidiaries to maintain control over its supply chain. Its sales network across countries distribute XYZ gadgets, as well as other consumer electronic products. This is an example of
- A.** Horizontal integration
 - B.** Vertical integration
 - C.** Conglomerate integration
 - D.** Backward horizontal integration
- [2]**
- Q. 8)** Which of the following would indicate that ‘X’ is an associated company of ‘Y’?
- A.** Y can appoint three of X’s eight board members.
 - B.** Y can appoint five of X’s eight board members.
 - C.** Y can nominate three non-voting observers to attend X’s board meetings.
 - D.** Y will have total control over X.
- [2]**
- Q. 9)** An investor used to invest in any company only for a short period to achieve a capital gain. She is presently looking for a company’s share with high beta coefficient. Which of the following is a rational explanation for this investor to identify a high beta share?
- A.** High beta shares will have low dividend yield
 - B.** Only systematic risks matter
 - C.** Investor expects the stock market to weaken
 - D.** Investor expects the stock market to strengthen
- [2]**
- Q. 10)** For an insurance company calculate the “New business strain” if

Premium Payable Yearly	Rs. 1,000
Expense and commission	Rs. 250
Statutory Reserve	Rs. 850
Sum Assured	Rs.10,000

- A. Rs. 1,100
- B. Rs. 9,000
- C. Rs. 100
- D. Rs. 150

[2]

- Q. 11)** A manufacturing company calculates the liquidity ratios of its customers by collecting the annual financial reports for its credit control purpose. Part of financial statements for past two years of a customer AAA Ltd is shown below:

Assets	31 Mar 2022	31 Mar 2021
Land and Building	45,000	46,000
Machinery	700	800
Inventory	5,250	3,750
Trade Receivable	9,250	10,550
Bank	700	1,350
Liabilities		
15% Mortgage	25,000	25,000
Bank overdraft	450	120
Tax Due	720	920
Trade Payable	6,270	6,228

- i) Calculate the required liquidity ratios for both the years and comment on the company's liquidity position. (4)
- ii) Discuss the usefulness of the company's annual reports for this purpose. (5)

[9]

- Q. 12)** A seven-year-old car is being offered for sale at Rs.150,000 in a local showroom. On seeing this Ham gets a business idea and talks to his small scale financier Fam and offers a deal. Fam will purchase the car paying the full cost and Ham will be working as a driver of this car with a mobile app-based travels company.

Both Ham and Fam will be preparing an annual income statement and split the cash surplus each year equally on the last day of the business year. The splitting will be done after setting aside a sum of Rs.10,000 as working capital. The business will run for three years and the car will be scrapped at the end of third year as the Government policy prohibits use of more than ten-year-old cars.

Fam said he will accept the proposal and invest only if it offers him a minimum rate of return of 9% as this is a major investment for him. Also, another major concern for Fam is the proposed new Government policy of scraping eight-year-old cars and in that case this

business will be scrapped at the end of first year. Ham has confirmed that he is aware of this risk and has already factored in his calculations and assured a return of 9%.

The projected annual income statement for 3 years:

	31 Mar 2023	31 Mar 2024	31 Mar 2025
Revenue	120,000	140,000	160,000
Car running expenses	-18,000	-19,500	-21,000
Depreciation	-50,000	-50,000	-50,000
Total	52,000	70,500	89,000

Assume all the transaction happens in cash and Car running expenses includes fuel, insurance and regular maintenance.

- i) Calculate the Net Present Value of Fam's cash flow and comment on whether Fam can accept the deal. (8)
 - ii) Discuss the argument that the risks of Government policy changes should be dealt with by setting a higher discount rate. (3)
 - iii) There is 20% chance of the Government bringing the eight-year-old car scraping policy. Calculate the revised Net Present Value using certainty equivalent assuming a 7% discount rate. (2)
- [13]

- Q. 13)** Finance team of ABC Ltd, which wants to raise capital for expansion, is debating whether to issue debt or equity? A junior analyst has come up with a suggestion to issue convertibles instead. Justify the junior analyst's stance. [5]
- Q. 14)** Ram owns a small manufacturing company and has decided to use his bank overdraft facility to buy inventory ahead of the peak selling period. Explain why a small business should take care in managing its overdraft? [5]
- Q. 15)** Companies pay corporation tax on their taxable profits. The company's accounting profit has to be adjusted to get to taxable profits. What are these adjustments? [3]
- Q. 16)** Company XYZ is using past estimates while creating a budget for the future. The senior manager of the company is exploring the possibility of introducing zero-based budgeting. Prepare a note on key differences between traditional incremental budgeting and zero-based budgeting which will help the senior manager to make a decision on the change. [5]
- Q. 17)** ABC Ltd decides to buy back its own shares rather than make a distribution in the form of a dividend. State the reasons for ABC doing so and effects on the shareholders. [8]
- Q. 18)** A bancassurer writes all of its business only in India. It's general insurance division has been put up for sale. Your company, a major general insurance provider in India has been invited by the bancassurer to bid for its general insurance division. You have been appointed as the head of the project team on this merger/acquisition project. Describe the factors you would consider before submitting the bid. [10]

- Q. 19)** The following information has been obtained from bookkeeping records of a manufacturing company XYZ Ltd as at 31.03.2022:

Particulars	Amount Rs
Administrative salaries	2,700
Advertising	49,500
Bank overdraft	59,185
Accumulated factory depreciation at start of the year	10,500
Factory Valuation	350,000
Cost of inventory consumed	326,250
Delivery vehicle running costs	38,250
Delivery vehicles cost	281,250
Accumulated delivery vehicles depreciation at start of the year	168,794
Dividend due but not paid	112,500
Factory running costs	78,750
Inventory at 31 Mar 2022	27,000
Land valuation	630,000
Loan (repayable 2025)	225,000
Machinery cost	139,500
Accumulated machinery deprecation at start of the year	63,547
Manufacturing wages	146,250
Retained earnings	196,475
Revaluation reserve	180,000
Revenue	1,264,500
Sales salaries	63,000
Share capital	157,500
Trade payables(creditors)	42,750
Trade receivables(debtors)	94,500

Following additional information is available:

- Land was revalued at 1,200,000 and Factory at 350,000 at the start of the year.
- Depreciation for the year is charged as follows:
 - 3% straight line method for the Factory.
 - 7% straight line method for the Machinery.
 - 14% reducing balance method for Delivery Vehicles.
- Interest coverage ratio was 18.187 times at the end of the year.
- Cash in hand was not in the record above but it was observed that the current ratio at the end of the year was 1.615878.
- The company is not subject to taxation.

Prepare the following in the suitable format for publication for the year ended 31 March 2022 (all values can be rounded off to the nearest integer value):

- i) An income statement. (6)
 - ii) A statement of change in Equity. (5)
 - iii) A statement of financial position. (9)
 - iv) List any four items from the above information that will be included in preparation of the cash flow statement. (2)
- [22]**
