BANK FINANCIAL MANAGEMENT IMPORTANT FORMULA FOR CAIIB EXAM

$$ROI = \frac{FVI - IVI}{\text{Cost of Investment}} \times 100\%$$

CAIIB BFM Important Formula

Liquidity coverage ratio:

1.Raw material Turnover Ratio = Cost of RM used ÷ Average stock of R M

2.SIP Turnover = Cost of Goods manufactured ÷ Average stock of SIP

3.Debt Collection period = No. days or months or Weeks in a year ÷ Debt Turnover Ratio.

4.Average Payment Period = No. days or months or Weeks in a year ÷ Creditors Turnover Ratio.

5.Inventory Turnover Ratio = Cost of Goods Sold ÷ Average Inventory.

6.Debtors Turnover Ratio = Net Credit Sales ÷ Average Debtors.

7.Creditors Turnover Ratio = Net Credit Purchases ÷ Average Credits.

8.Defensive Interval Ratio = Liquid Assets ÷ Projected Daily Cash Requirement

9.Projected daily cash requirement = Projected operating cash expenses ÷ 365

10.Debt Equity Ratio = Long Term Debt ÷ Equity or Debt Equity Ratio = Total outside Liability ÷ Tangible Net Worth.

11.Debt to Total Capital Ratio = Total Debts or Total Assets ÷ (Permanent Capital + Current Liabilities)

12.Interest Coverage Ratio = EBIT ÷ Interest.

13.Dividend Coverage Ratio = Net Profit after Interest & Tax ÷ Preferential dividend

Components of Assets and Liabilities in the bank balance sheet:

14.Return on Assets = Net Profit After Tax ÷ Total Assets.

15.Total Assets = Net Fixed Assets + Net Working Capital.

16.Net Fixed Assets = Total Fixed Assets – Accumulated Depreciation.

17.Net Working Capital = (CA – CL) – (Intangible Assets + Fictitious Assets + Idle Stock + Bad Debts)

Tier I and Tier II capital

18.Return on Capital Employed = Net Profit Before Interest and Tax ÷ Average Capital Employed.

19.Average Capital employed = Equity Capital + Long Term Funds ÷ (Owners & Creditors at the beginning & at the end of the accounting period ÷ 2).

20.Return on Ordinary Share Holders Equity = (Net Profit After Tax – Preferential Dividends) ÷ Average Ordinary Share Holders Equity or Net Worth.

21.Earnings Per Share = Net Profit After Taxes and Preferential dividends ÷ Number of Equity Share.

22.Dividend per Share (DPS) = Net Profit After Taxes and distributable dividend ÷ Number of Equity Shares.

23.Dividend Pay Out Ratio = Dividend per Equity Share ÷ Earnings per Equity Share or Dividend Pay Out Ratio = Dividend paid to Equity Share-holders ÷ Net Profit available for Equity Share Holders.

24.Price Earnings Ratio (P/E) = Market Price per equity Share ÷ Earning per Share.

Asset classification

25.Total Asset Turnover = Cost of Goods Sold ÷ Average Total Assets.

26.Fixed Asset Turnover = Cost of Goods Sold ÷ Average Fixed Assets.

27.Capital Turnover = Cost of Goods Sold ÷ Average Capital employed

28.Current Asset Turnover = Cost of Goods Sold ÷ Average Current Assets.

29.Working Capital Turnover = Cost of Goods Sold ÷ Net Working Capital.

30.Return on Net Worth = (Net Profit ÷ Net Worth) * 100

Import export

31.Factory Cost = Prime cost + Production Overheads.

32.Cost of Goods Sold (COGS)= Factory Cost + Selling, distribution & administrative overheads

33.Contribution = Sales – Marginal Costs.

34.Percentage of contribution to sales = (Contribution ÷ Sales) * 100

35.Break Even Analysis (BEP) = F ÷ (1 – VC ÷ S) , **Where F = Fixed costs, VC** = Total variable operating costs & S = Total sales revenue

37.Break Even Margin or Margin of Safety = Sales – Break Even Point ÷ Sales.

38.Cash Break Even = F – N ÷ P – R or F – N ÷ 1 – (VC ÷ S)

39.BEP (Break Even Point) = Fixed Costs ÷ Contribution per unit.

40.Sales volume requires = Fixed cost + Required profit ÷ Contribution per unit.

41.BEP in Sales = (Fixed Costs ÷ Contribution per unit) * Price per unit.

Interest rate risk

42.Gross Profit Margin = Gross Profit ÷ Net Sales * 100

43.Net Profit Margin = Net Profit ÷ Net Sales * 100

44.Cost of Goods Sold Ratio = Cost of Goods Sold ÷ Net Sales * 100.

45.Operating Profit Ratio = Earnings Before Interest Tax ÷ Net Sales * 100

46.Expenses Ratio or Operating Ratio = Expenses ÷ Net Sales * 100

47.Net Profit Ratio = Net Profit After interest and Tax ÷ Net Sales * 100

48.Operating Expenses Ratio = (Administrative + Selling expenses) ÷ Net Sales * 100

49.Administrative Expenses Ratio = (Administrative Expenses ÷ Net Sales) * 100

50.Selling Expenses Ratio = (Selling Expenses ÷ Net Sales) * 100

51.Financial Expenses Ratio = (Financial Expenses ÷ Net Sales) * 100

52.DSCR = Profit after Tax & Depreciation + Interest on Term Loans & Differed Credit + Lease Rentals, if any, ÷ Repayment of Interest & Installments on Term Loans & deferred Credits + Lease Rentals, if any.

53.Contribution Sales Ratio = (Contribution per unit ÷ Sale price per unit) * 100

54.Level of sales to result in target profit after Tax = (Target Profit) ÷ (1 – Tax rate ÷ Contribution per unit)

55.Level of sales to result in target profit = (Fixed Cost + Target profit) * sales price per unit Contribution per unit.

Time value of money:

56.Net Present Value = – Co + C1 ÷ (1 + r)

57.Future expected value of a present cash flow = Cash Flow (1 + r) ^ t

58.Present value (simple future cash flow) = Cash Flow ÷ (1 + r) ^ t

59.Discount Factor = 1 ÷ (1 + r) ^ t

60.Notation used internationally for PV of an annuity is PV (A, r, n)

61.Notation used internationally for FV of an annuity is FV (A, r, n)

62.Effective Annual Rate = (1 + r) ^ t – 1 or (1 + (r ÷ N)) – 1) (N = Number of times compounding is done in a year)

63.PV of end of period Annuity = A {(1- (1 ÷ (1+r) ^ n) ÷ r}

64.Present Value (PV) = P ÷ R * [(1+R) ^ T – 1] ÷ (1+R) ^ T

65.Present Value = P ÷ (1+R) ^ T

66.Future Value (FV) = P * (1 + R) ^ T or FV = P * (1-R) ^ T or FV = P ÷ R * [(1+R) ^ T – 1] or FV = P ÷ R * [(1+R) ^ T – 1] * (1+R)

67.Equated Monthly Installments (EMIs)= P * R * [(1+R) ^ T ÷ (1+R) ^ T-1)]

68.Future Value of annuity = A ÷ r ×{(1+r) ^ n-1}

69.Bond Price = (1 ÷ (1+R) ^ t) ((coupon*((1+R) ^ t-1) ÷ R) + Face Value)

Basel III framework on Liquidity standard

70.Current Ratio = CA : CL

71.Net Worth = CA – CL

72.Debt Equity Ratio = TL ÷ TNW or debt ÷ equity or TL ÷ equity

73.Price Elasticity of Supply = (% change in quantity supplied ÷ (% change in price)

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