EFM CIE 2 – Answer Key

# Part A

1. List the three commonly used approaches for valuation of equities.

• Dividend Discount Model (DDM)  
• Price/Earnings (P/E) Ratio Method  
• Net Asset Value Method

1. Distinguish between Market Risk and Unique Risk.

• Market Risk: Affects the entire market or economy (e.g., inflation, interest rates).  
• Unique Risk: Specific to a company or industry (e.g., management decisions, strikes).

1. In the context of long-term financing, distinguish between Equity and Debt in terms of the ownership rights to the investor.

• Equity: Provides ownership and voting rights.  
• Debt: No ownership rights; investor is a creditor.

1. What does the term Yield to Maturity represent?

Yield to Maturity (YTM) is the total return expected on a bond if held until it matures.

1. What does the term 'Risk' in Finance primarily refer to?

It refers to the uncertainty or variability of returns on investment.

1. Mention any one capital budgeting technique that considers the time value of money.

Net Present Value (NPV).

1. Name the capital budgeting technique that calculates profitability as a percentage of investments.

Profitability Index (PI).

# Part B

1.a A bond with a face value of ₹1,000 carries a coupon rate of 10% and matures in 5 years. If the required rate of return is 8%, calculate the value of the bond.

Bond Value:  
P = 100 × 3.9927 + 1000 / (1.08)^5 = ₹1079.85

1.b A bond with a face value of ₹1,000 sells for ₹950. It has a 10% annual coupon and matures in 5 years. Calculate the Yield to Maturity.

YTM ≈ [100 + (1000 - 950)/5] / [(1000 + 950)/2] = 110 / 975 ≈ 11.28%

2.a Calculate Expected Return and Standard Deviation for the given scenarios.

|  |  |  |
| --- | --- | --- |
| Scenario | Return (%) | Probability |
| Boom | 20 | 0.3 |
| Normal | 10 | 0.5 |
| Recession | -5 | 0.2 |

Expected Return = 10%  
Standard Deviation ≈ 8.66%

2.b Justify relationship between Risk and Return.

Higher risk investments provide potential for higher returns. Investors are rewarded for bearing additional risk.

3. Enumerate the steps involved in Capital Budgeting Process.

1. Identify investment opportunities  
2. Evaluate and screen proposals  
3. Estimate cash flows  
4. Apply evaluation techniques (NPV, IRR, etc.)  
5. Select the project  
6. Implement and review

4.a Apply NPV method to select between two projects.

Project A NPV = ₹22,745 – ₹20,000 = ₹2,745  
Project B NPV = ₹17,355 – ₹20,000 = –₹2,645  
Choose Project A.

4.b Calculate ARR.

Average Profit = ₹14,000  
ARR = (14,000 / 150,000) × 100 = 9.33%

5. Explain any Five sources of long term finance.

• Equity Shares  
• Preference Shares  
• Debentures  
• Term Loans  
• Retained Earnings