**JAIPURIA INSTITUTE OF MANAGEMENT, INDORE**

**PGDM**

**SECOND TRIMESTER (Batch 2019-21)**

**END TERM EXAMINATION, DECEMBER-2019**

**SET-1**

|  |  |  |  |
| --- | --- | --- | --- |
| Course Name | **Corporate Finance** | Course Code | **FIN201** |
| Max. Time | **2 hours** | Max. Marks | **40** |

**INSTRUCTIONS: Attempt all Qs. TVM tables are not allowed.**

**Questions.1 (5 Marks) = CLO 1. Difficulty Level: Easy.**

The following graph depicts the expected returns and standard deviations of 5 different assets. You are a risk-averse investor who plans to invest in one (and only one) of those assets. You have no other information on the assets. Select assets you would definitely NOT choose. Justify your selection and non-selection.

D



A



B



E



Expected Return



C



Risk

(Standard Deviation)



**Questions.2 (4+4+3 = 15 Marks) = CLO 2. Difficulty Level: Medium**

Acme Mfg is considering two projects, A & B, with cash flows as shown below:

period CFA CFB

0 -50,000 -100,000

1 20,000 60,000

2 20,000 25,000

3 20,000 25,000

4 20,000 25,000

The opportunity cost of capital for A is 14 percent. The opportunity cost of capital for B is 10 percent.

a. Calculate the NPV for each project.

b. Calculate the IRR for each project.

c. Recommend project(s) that should be accepted in each of the following situations?

(1) The projects are mutually exclusive and there is no capital constraint.

(2) The projects are independent and there is no capital constraint.

(3) The projects are independent and there is a total of $100,000 of financing for capital outlays in the coming period.

**Questions.3 (4+4+4+2 = 14 Marks) = CLO 3. Difficulty Level: Hard**

Graphite Limited is a manufacturer of floor tiles. The income statement and balance sheet of previous year are given below:

**Income Statement**

|  |  |
| --- | --- |
| **Particulars** | **₹ in Lakh** |
| Sales  Variable Costs  Contribution  Fixed Costs  EBIT  Interest  EBT  Tax  PAT | 200  (120)  80  (20)  60  (10)  30  (9)  21 |

**Balance Sheet**

|  |  |  |  |
| --- | --- | --- | --- |
| **Liabilities** | **₹ in Lakh** | **Assets** | **₹ in Lakh** |
| Equity Capital  Reserve & Surplus  Long term Debt  Current Liabilities | 40  20  80  30 | Fixed Assets  Inventory  Receivables  Cash | 100  40  20  10 |
| TOTAL | 170 | TOTAL | 170 |

The company plans to extend the production line in forthcoming years. The expected capital investment is ₹20 lakh. If implemented, the sales are expected to rise by 20%. The variable cost per unit is expected to rise by 5% and the fixed cost is also expected to rise by 10%.

Graphite Limited is pondering on the following two options for financing the project:

Option 1: Borrow the entire fund at an interest of 10% per annum.

Option 2: Borrow 40% at an interest rate of 8% and rest of the capital through equity shares.

1. Compute the company’s degree of operating leverage, degree of financial leverage and degree of total leverage before adoption of the new proposal.
2. Given the tax rate 30%, beta 1.2, risk-free rate 6% and the expected return in the market portfolio 14%, which of the two options for financing will you recommend? Show relevant workings
3. Compute the degree of operating leverage, degree of financial leverage, and degree of total leverage after adoption of new proposal.
4. Assess the impact of adopting the new proposal on operating risk, financial risk and total risk of the company.

**Questions.4 (3+3 = 6 Marks) = CLO 3. Difficulty Level: Medium**

Anil Industries turns over its inventory 6 times each year; it has an average collection period of 45 days and an average payment

period of 30 days. The firm’s annual operating-cycle investment is $3 million. Assume a 360-day year. (5)

1. Calculate the firm’s cash conversion cycle, its daily cash operating expenditure, and the amount of resources needed to support its cash conversion cycle.
2. Calculate the firm’s cash conversion cycle and resource investment requirement if it makes the following changes simultaneously.
3. Shortens the average age of inventory by 5 days.
4. Speeds the collection of accounts receivable by an average of 10 days.
5. Extends the average payment period by 10 days.