BITS PILANI

HYDERABAD CAMPUS

FIN F315 ASSIGNMENT

BY

GROUP 10

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OUR OBJECTIVE

The objective of this assignment is to use the theories we learned in the class to calculate Cost of Capital (WACC).

The target company for our assignment is UltraTech Cements. We will calculate WACC for UltraTech Cements.

TARGET COMPANY
ULTRATECH

ULTRATECH CEMENT LIMITED IS AN INDIAN CEMENT COMPANY BASED IN MUMBAI, AND A PART OF ADITYA BIRLA GROUP

PEER COMPANIES

WE HAVE CHOSEN CEMENT INDUSTRY BECAUSE THE COMPANIES IN THIS SECTOR HAVE ALMOST SIMILAR PRODUCT LINES AND THE COMPANIES ARE VERY MUCH SIMILAR IN THE SENSE THAT WE CAN GET AN INDUSTRY BETA OUT OF THEM.

JK LAKSHMI CEMENT Ltd.

ACC

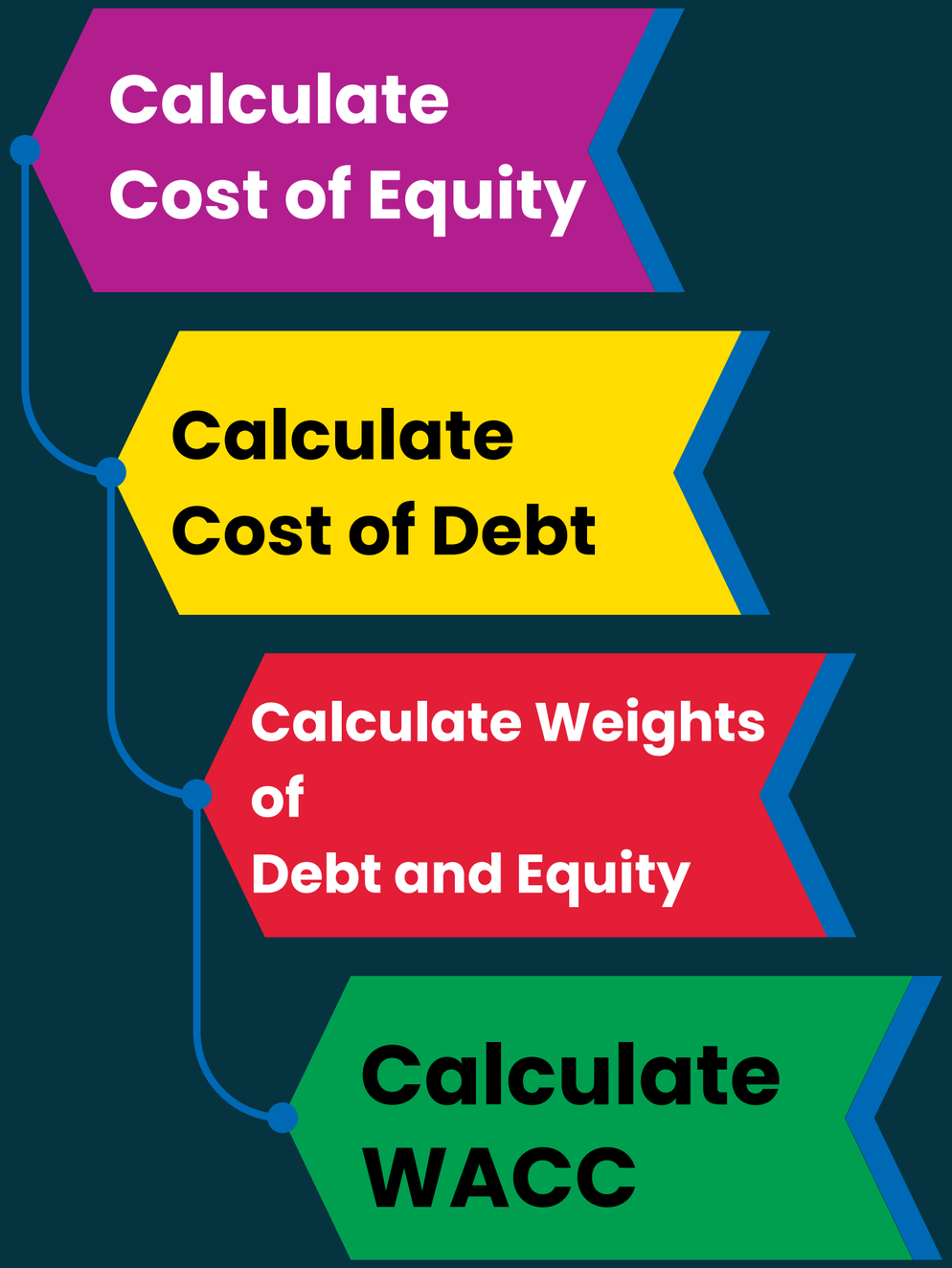
ACC LIMITED

Ambuja Cement

HEIDELBERGCEMENT

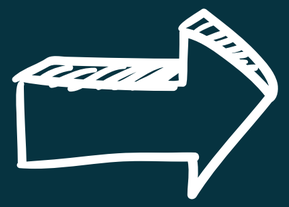
SHREE CEMENT LIMITED

Steps to calculate WACC

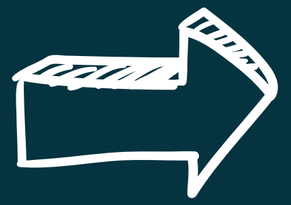


Cost of Equity using Regresssion

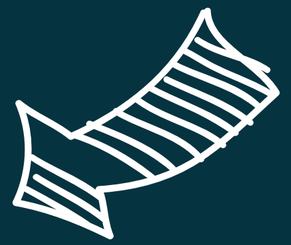
1. CALCULATE RETURNS FOR ULTRATECH AND NIFTY50



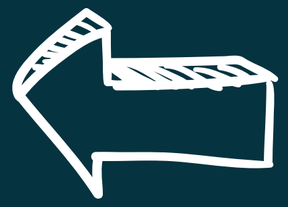
2. PERFORMING REGRESSION WITH ULTRATECH AS DEPENDENT AND INDEX AS INDEPENDENT VARIABLE



3. BETA WAS CONSIDERED QUITE SIGNIFICANT AS 'P' VALUE IS LESS THAN 0.05



4. AFTER GETTING BETA I.E COEFFICIENT OF INDEX (INDEPENDENT VAR)



5. USE CAPM MODEL TO FIND COST OF EQUITY.

Cost of Equity using Industry Beta

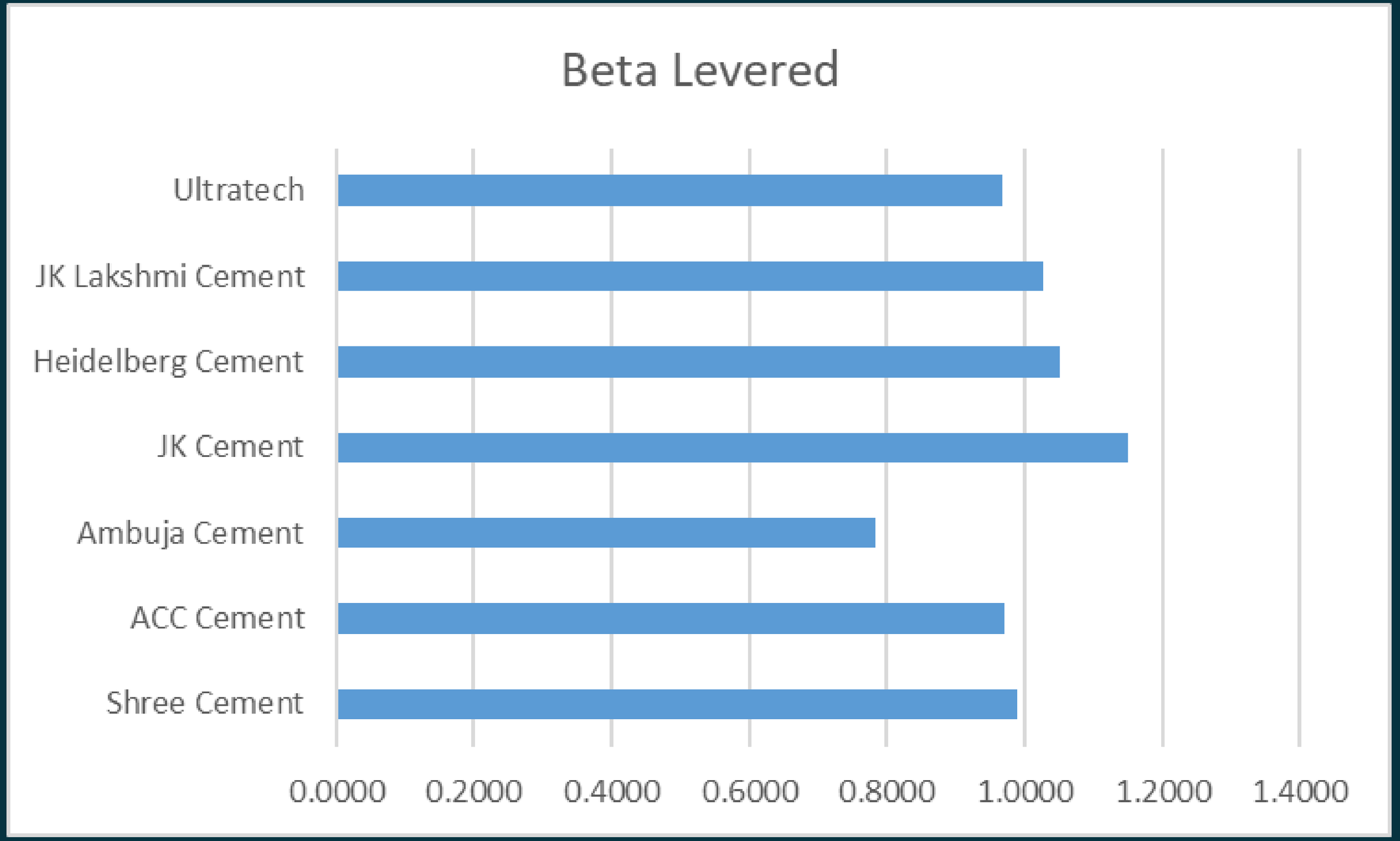
1.
FIND RETURNS OF ALL COMPANIES AND INDEX

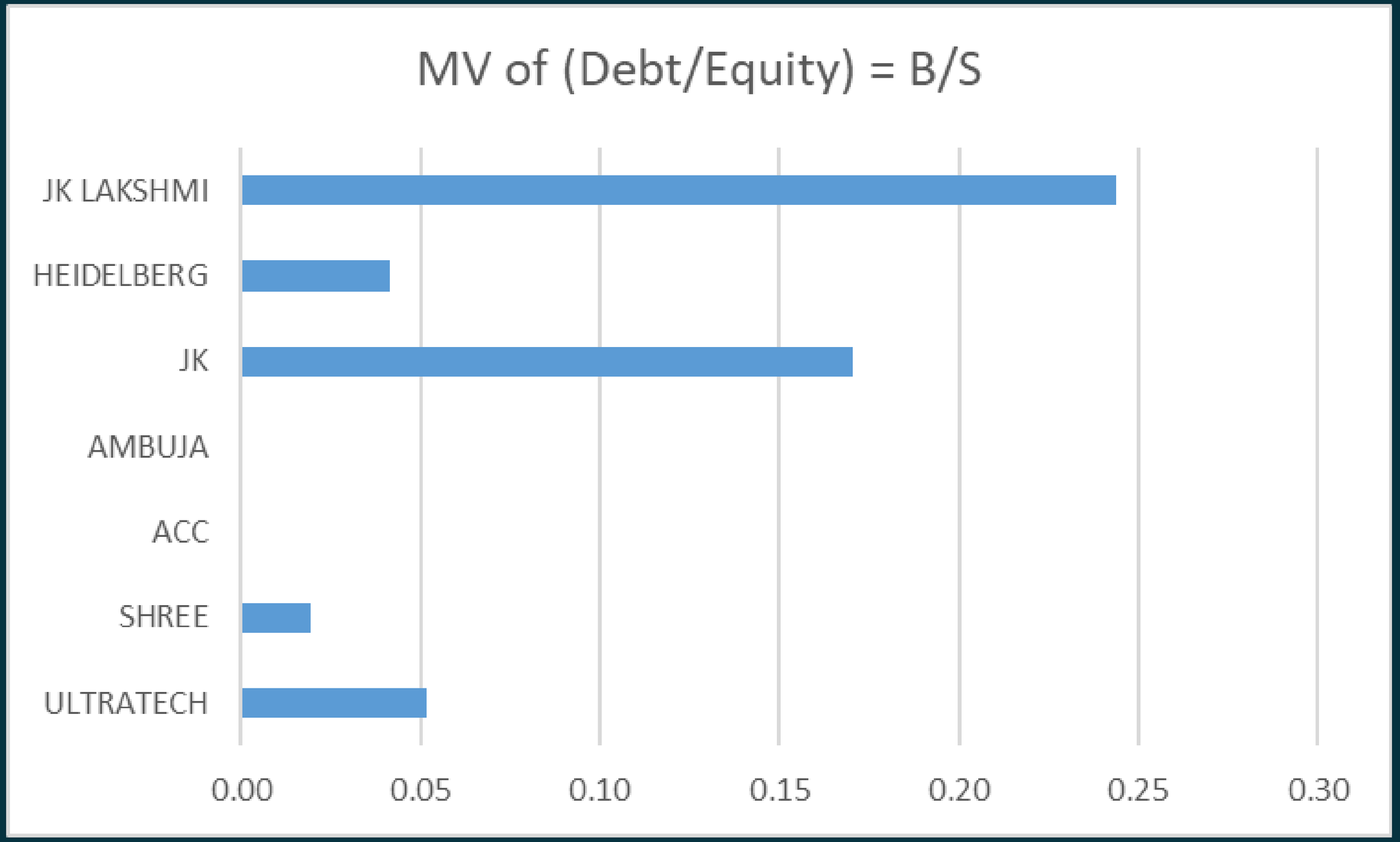
2.
PERFORM REGRESSION WITH THE DEPENDENT VARIABLE AS THE COMPANY RETURNS AND INDEPENDENT VARIABLE AS NIFTY 50 RETURNS.

3.
P VALUE IS LESS THAN 0.05 THEREFORE BETA FOUND IS OF STATISTICAL SIGNIFICANCE.

4.
FIND UNLEVERED BETA OF EACH COMPANY.
TAKE THE AVERAGE OF ALL UNLEVERED BETA TO GET INDUSTRY BETA AND RELEVER THE BETA OF ULTRATECH CEMENT

5.
USE CAPM TO FIND OUT COST OF EQUITY.


Beta Levered
Ultratech
JK Lakshmi Cement
Heidelberg Cement
JK Cement
Ambuja Cement
ACC Cement
Shree Cement
0.0000
0.2000
0.4000
0.6000
0.8000
1.0000
1.2000
1.4000



INDUSTRY BETA

0.941

RELEVERED BETA (ULTRATECH)

0.982

Important Formulas

TAX RATE = TAX EXPENSE / EBIT

BETA LEV = BETA UNL *(1+(1-T)B/S)

COST OF EQUITY = R(F) + BETALEV (R(M) - R(F))

B/S = MARKET VALUE OF DEBT / MARKET VALUE OF EQUITY

BETA LEVERED = 0.982

COST OF EQUITY = 11.80% (INDUSTRY BETA METHOD)

BETA LEVERED = 0.968

COST OF EQUITY = 11.73% (REGRESSION)

Cost of Debt

CALCULATE INTEREST COVERAGE RATIO (ICR)

FIND THE DEFAULT SPREAD BY LOOKING THE TABLE

PRE-TAX COST OF DEBT = DEFAULT SPREAD + RISK FREE RATE

POST-TAX COST OF DEBT = PRE-TAX COST OF DEBT * (1 - TAX RATE)

POST TAX COST OF DEBT = 6.22%

ICR = EBIT / INTEREST

WACC

WACC = RS * WS + (1 - TC) * RB * WB

Where

- RS = Cost of Capital
- RB = Pre Tax Cost of Debt
- WS = Weightage of Equity
- WB = Weightage of Debt
- TC = Tax Rate

TOP DOWN

WACC = 11.46%

BOTTOM UP

WACC = 11.53%

Result

COST OF DEBT = 6.22% (POST TAX)

COST OF EQUITY = 11.73% (REGRESSION)

COST OF EQUITY = 11.80% (INDUSTRY BETA METHOD)

WACC = 11.46% (REGRESSION)

WACC = 11.53% (INDUSTRY BETA METHOD)

THANK YOU