

K.J. Somaiya Institute of Management Studies & Research

Course: PGDM FINANCE – V Trim End Term Exam

Sub: Infrastructure and Project Financing

Date of Exam: 11 /01/2019

Time: 3 Hours

Marks: 50

IMPORTANT INSTRUCTIONS:

- 1. Exam is to be answered COMPLETELY in SPREADSHEET giving comments/discussion for each question attempted in a text box in the solution worksheet.**
- 2. Save the EXCEL output for all questions in the same file across different sheets.**
- 3. Attempt any one question from section A. Each question in section A carries 25 Marks.**
- 4. Attempt all questions from section B. The weightage of each question in section B is given with the question.**
- 5. Answers to conceptual questions/explanation of answers should be given in the same worksheet in a text box.**

SECTION A

Case 1: NEW EARTH MINING, INC. (Soft copy of the case and spreadsheet model provided)

Answer the following based on case text and spreadsheet provided herewith. *(Save each outcome in one file across separate sheets).*

- a. What is NESAs initial WACC?
- b. Which valuation approach in analyzing the net present value of New Earth's new investment opportunity is most accurate? Why are the other methods not accurate?
- c. Calculate the adjusted present value of the project (APV), assuming
 1. 14 % cost of unlevered equity

2. 10 % cost of debt
3. Price of iron ore at \$80 per ton
4. Unlevered cash flows given in exhibit 3
5. Interest payment as given in exhibit 7
6. Schedule of debt amortization and prepayment as given in exhibit 8

OR

Case 2: THE INVESTMENT DETECTIVE (Soft copy of the case provided herewith).
Answer question 1 to 3 given in the case. *(Save each outcome in one file across separate sheets).*

SECTION B

Q2. **Mini Case** **(MM**
10)

MLM Ltd. is planning a project involving replacement of an old machine with a new machine. The old machine bought a few years ago has a book value of Rs. 12 lakhs and it can be sold to realise a post-tax salvage value of Rs. 15 lakhs. It has a remaining life of 4 years after which its net salvage value is expected to be Rs. 3 lakhs. It is being depreciated annually at a rate of 25 percent under WDV method.

The new machine costs Rs. 50 lakhs. It is expected to fetch a net salvage value of Rs. 24 lakhs after 4 years. The depreciation rate applicable to it is 25 percent under WDV method. The incremental working capital associated with this machine is Rs. 8 lakhs and it is expected to be recovered at its book value at the end of 4 years. The new machine is expected to bring post-tax savings of Rs. 9 lakhs annually in manufacturing costs (other than depreciation). The tax rate applicable to the firm is 32 percent.

Estimate the cash flow associated with the replacement project.

Q3. **NH 34 (Soft copy of the case and spreadsheet model provided)** **(MM**

15)

Answer the following based on case text and spreadsheet model provided herewith. **(Save each outcome in one file across separate sheets).**

Calculate the value of asset sale options (sell 50%, sell 74% and sell 100% of the project to an outside investor) under scenarios given below. For all scenarios, assume a 15% base discount rate for HCON.

Scenario 1: Company case where traffic is 90% of investor projections and the transaction of sale happens 1 year after the road is completed.

Scenario 2: Taking the scenario 1 above from investor perspective, additionally assume that traffic growth is 100 basis points lower than expected.

Scenario 3: Company base case where traffic growth is 100 basis points higher than expected and transaction of sale happens 1 year after the road is completed.
