PGDM, 2020-22

Corporate Finance

Subject Code: DM-301

Trimester – III, End-Term Examination: April 2021

Time allowed: 2.5 Hours Max Marks: 50

Roll No: _____

Instruction: Students are required to write Roll No on every page of the Answer Sheet. All other instructions on the question paper / notifications should be followed meticulously.

Sections	No. of Questions to attempt	Marks	Marks
A	Attempt three	10 Marks each	3*10 = 30
B	Compulsory Case Study	20 Marks	20
		Total Marks	**50**

Section A

1. A. Suppose you own stock of a company. The current price per share is Rs. 50. Another company has just announced that it wants to buy your company and will pay Rs. 70 per share to acquire all the outstanding stock. Your company's management immediately begins fighting off the hostile bid. Is management acting in the shareholders' best interests? Why or why not?

1 B. A bank has offered a deposit scheme, which will triple your money in nine years. What rate of return would you earn from the scheme? **(CILO 1)**

OR

2. A. The present value of investing in equity shares should not depend on how long the investor plan to hold it. Explain why? Also define the market capitalisation rate for an equity share. Under the assumption that the dividend on Fledging Electronics Limited is Rs. 10 per year for the next 9 years and thereafter it is expected to grow at 5% a year. The capitalisation rate is 15%. Does it equal to the opportunity cost of capital?

2. B. Arise Limited wishes to raise an additional Rs 100,00,000 for meeting its investment plans. It has Rs 20,00,000 in the form of retained earnings available for investment purposes. The following are the further details:

Debt-Equity Mix 30% / 70%

Cost of Debt

Up to Rs 18,00,000	10% (before tax)
Beyond Rs 18,00,000	16% (before tax)
Earnings per share	Rs 4
Dividend payout	50% of earnings
Expected growth rate of dividend	10%
Current market price per share	Rs 44
Tax Rate	50%

You are required:

- to determine the pattern for raising the additional finances.
- to determine the post tax average cost of additional debt
- to determine the cost of retained earnings and cost of equity, and
- to determine the overall weighted average cost of additional finance **(CILO 1)**

3. As a result of improvements in product engineering, United Automobile is able to sell one of the two milling machines. Both machines perform the same function but differ in age. The newer machine can be sold for Rs.5 lakhs today. Its operating costs are Rs. 2 lakh a year, but in five years machine require a Rs. 2 lakhs overhaul. Thereafter, operating cost would be Rs. 3 lakhs until the machine is sold in year 10 for Rs. 50000/-.

The older machine could be sold today for Rs. 250000/-. If it is kept, it will need an immediate Rs. 2/- lakh overhaul. Thereafter, operating cost would be Rs. 3 lakhs until the machine is sold in year 5 for Rs. 50000/-.

Both machines are fully depreciated for tax purposes. The company pays tax at 35%. The cash flows have been forecasted in real terms. The real cost of capital 12%. Which machine should United Automation sell? **(CILO 2)**

OR

4. ABC a profit making company engaged in the business of car manufacturing . In order to be independent in terms of its electricity needs the company's management has proposed to set up a solar power plant to generate electricity . The details of the proposal are as follows

Cost of Power Plant	Rs 280 Lakhs
Cost of Land	Rs 30 Lakhs
Subsidy from State Govt to be received At the end of first year of installation	Rs 25 Lakhs

Sale of electricity to state electricity board will be at 2.25 per unit in the year 1 . This will increase by Rs0.25 per unit every year till seven years. After this it will increase by 50 paise every year
Maintenance cost will be 4 lakhs in year 1 and the same will increase by 2 lakhs every year
Estimated life is 10 years
Cost of Capital is 15 %
Residual Value of power plant will be nil. However, the cost of land will go upto Rs 90 Lakhs at the end of year 10
Depreciation will be 100% of the cost of plant in year 1 (entire 280 lakhs to be depreciated in year 1 without considering subsidy) and the same will be allowed for tax purpose
Gross Electricity generated will be 25 lakh units per annum. 4% of the electricity generated will be committed free to state electricity board as per agreement
Tax rate is 50%

You are required to suggest the viability of the proposal by calculating NPV while ignoring the capital profits. Assume that the tax saving if any are utilized in the year of their occurrence

(CILO 2)

5. As a part of the strategy to increase sales and profits, the sales manager of a company proposes to sell goods to a group of new customers with 10% risk of non-payment. The group would require one and 1/2-month credit and likely to increase sales by Rs. 100000/- p.a. Production and selling expenses amount to 80% of sales and income tax 50%. The company's after-tax cost of capital is 25%. Should the sales manager's proposal be accepted? Also find the degree of risk of non-payment that the company should be willing to assume if the after-tax cost of capital were (i) 30%, (ii) 40%, and (iii) 60%

(CILO 3)

OR

6. A. Excel Company has been a fast growing firm and has been earning very high return on its investment in the past. Because of the availability of highly profitable investment internally, the company has been following a policy of retaining 70% of the earning and paying 30% of earning as dividends. The company has now grown matured and does not have enough profitable internal opportunities to reinvest its earnings. But it does not want to deviate from its past dividend policy on the ground that investors have been accustomed to it and any change may not be welcomed by them. The company thus invests retained earnings in the short term Government securities. Is the company justified in following current dividend policy? Give reasons to support your answer

6. B. Prove through your unique illustration the relevance and irrelevance of Walter's Model on dividend theory; and enlist assumptions to support the theory. **(CILO 3)**

Section B

NotSoWise Products Company manufactures several different products. One of the firm's principal products sells for Rs. 20 per unit. The sales manager of Wisconsin Products has stated repeatedly that he could sell more units of this product if they were available. In an attempt to substantiate his claim, the sales manager conducted a market research study last year at a cost of Rs. 44,000 to determine potential demand for this product. The study indicated that Wisconsin Products could sell 18,000 units of this product annually for the next 5 years.

The equipment currently in use has the capacity to produce 11,000 units annually. The variable production costs are Rs. 9 per unit. The equipment has a book value of Rs. 60,000 and a remaining useful life of 5 years. The salvage value of the equipment is now negligible and will be zero in 5 years.

A maximum of 20,000 units could be produced annually on new machinery. The new equipment costs Rs. 300,000 and has an estimated useful life of *5* years, with no salvage value at the end of 5 years. Wisconsin Products' production manager has estimated that the new equipment, if purchased, would provide increased production efficiencies that would reduce the variable production costs to Rs. 7 per unit.

Wisconsin Products Company uses straight-line depreciation on all its equipment for tax purposes. The firm is subject to a 40 percent tax rate, and its after-tax cost of capital is 15 percent.

The sales manager felt so strongly about the need for additional capacity that he attempted to prepare an economic justification for the equipment although this was not one of his responsibilities. His analysis presented below, disappointed him because it did not justify acquisition of the equipment.

He computed the required investment as follows:

Purchase price of new equipment		Rs. 300,000
Disposal of existing equipment		
Loss on disposal	Rs. 60,000	
Less tax benefit (40%)	24,000	36,000
Cost of market research study		44.000
Total investment		Rs. 380,000

He computed the annual returns as follows:

Contribution margin from product	
Using the new equipment	
[18,000 X (Rs. 20 - Rs. 7)]	Rs. 234,000
Using the existing equipment	
[11,000 x (Rs. 20 - Rs. 9)]	121,000
Increase in contribution margin	Rs. 1 13,000
Less depreciation	60,000
Increase in before-tax income	Rs. 53,000
Income tax (40%)	21,200
Increase in income	Rs. 31,800
Less 15% cost of capital on the additional investment required (0.15 X Rs. 380,000)	57,000
Net annual return on proposed investment in new equipment	Rs. (25,200)

The controller of the Company plans to prepare a discounted cash flow analysis for this investment proposal. The controller has asked you to prepare corrected calculations of
(a) the required investment in the new equipment and
(b) the recurring annual cash flows. Explain why your corrected calculations differ from the original analysis prepared by the sales manager.
(c) Calculate the net present value of the proposed investment in the new equipment.

(CILO 2)