



SNS College of Technology

Coimbatore - 35



23BAT611 – Financial Management

Unit - III

COST OF CAPITAL & CAPITAL STRUCTURE

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1st Indian Institution to Implement Design Thinking Curriculum
Redesigning Common Mind and Business Towards Excellence



Recall



Discussed Problem 1 related to Irredeemable Debt



Topic



Equity Share
Capital



Preference Share
Capital



Debts



Retained
Earnings



Cost of Capital





Cost of Irredeemable Debt



Problem : 2

Raja & Co Ltd issued Rs.2,00,000 9% debentures at a premium of 10%. The floatation costs (issue expenses) were 2%. The tax rate is 40%. Calculate before tax and after tax cost of debt.



Solution

Before Tax Cost of debt - $K_{db} = \text{Interest} / \text{Net Proceeds}$

After Tax Cost of debt - $K_{da} = \text{Interest} - \text{Tax Saving} / \text{Net Proceeds}$

Interest p.a 9% On 2,00,000 = 18,000

Less : Tax Saving at 40% on 18,000 = 7,200

Interest – Tax Saving = 10,800



Solution

Net Proceeds:

Face Value of debentures	= 2,00,000
Add: Premium 10%	= 20,000
	2,20,000

Issue Price

Less : Floatation cost 2%	= 4,400
Net proceeds	2,15,600



Solution

Before Tax Cost of debt - $K_{db} = \text{Interest} / \text{Net Proceeds}$

Before Tax Cost of debt - $K_{db} = 18,000 / 2,15,600$

Before Tax Cost of debt - $K_{db} = 8.35\%$ or **0.0835**

After Tax Cost of debt - $K_{da} = \text{Interest} - \text{Tax Saving} / \text{Net Proceeds}$

After Tax Cost of debt - $K_{da} = 18,000 - 7,200 / 2,15,600$

After Tax Cost of debt - $K_{da} = 10,800 / 2,15,600$

After Tax Cost of debt - $K_{da} = 5\%$ or **0.050**



Cost of Irredeemable Debt



Problem : 3

Jayasurya Ltd issued Rs. 60,000 10% debentures at a discount of 5%. The floatation costs (issue expenses) were Rs. 2,000. Assuming tax rate is 40%. Calculate before tax and after tax cost of debt.



Solution

Before Tax Cost of debt - $K_{db} = \text{Interest} / \text{Net Proceeds}$

After Tax Cost of debt - $K_{da} = \text{Interest} - \text{Tax Saving} / \text{Net Proceeds}$

Interest p.a 10% on 60,000 = 6,000

Less : Tax Saving at 40% on 6,000 = 2,400

Interest – Tax Saving = 3,600



Solution

Net Proceeds:

Face Value of debentures = 60,000

Less: Discount at 5% on 60,000 = 3,000

57,000

Issue Price

Less : issue expenses = 2,000

Net proceeds 55,000



Solution

Before Tax Cost of debt - $K_{db} = \text{Interest} / \text{Net Proceeds}$

Before Tax Cost of debt - $K_{db} = 6,000 / 55,000$

Before Tax Cost of debt - $K_{db} = 10.91\%$ or **0.1091**

After Tax Cost of debt - $K_{da} = \text{Interest} - \text{Tax Saving} / \text{Net Proceeds}$

After Tax Cost of debt - $K_{da} = 6,000 - 2,400 / 55,000$

After Tax Cost of debt - $K_{da} = 3,600 / 55,000$

After Tax Cost of debt - $K_{da} = 6.55\%$ or **0.0654**



Summarize

Cost of Irredeemable Debt





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