Chapter 6 – Capital Budgeting

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Q.1

A company is considering an investment proposal to install new milling controls at a cost of Rs. 50,000. The facility has a life expectancy of 5 years and no salvage value. The tax rate is 30 per cent.

Assume the firm uses WDV method of depreciation at 15%. The estimated profit before depreciation & tax (EBDT) from the investment proposal are as follows:

Year	EBDT
1	Rs. 10,000
2	Rs. 20,000
3	Rs. 45,000
4	Rs. 30,000
5	Rs. 25,000

Compute the following: (i) Payback period, (ii) PI, (iii) Net present value at 12 per cent discount rate, (iv) Accounting rate of return

PVIF@12% for year 1 to 5 respectively,

0.8929, 0.7972, 0.7118, 0.6355, 0.5674

Q.2

Chrome Ltd. is examining two mutually exclusive investments. The management uses NPV method to evaluate new investment proposals. Depreciation is charged using SLM. Other details are follows:

Particulars	Proposal X	Proposal Y
Annual Profit Before Tax	13,00,000	24,50,000
Cost of the project	90,00,000	1,80,00,000
Working Capital	5,00,000	10,00,000
Salvage Value	1,20,000	1,50,000
Working Life	5 years	5 years
Cost of Capital	10%	10%
Corporate Tax Rate	30%	30%

The present value of Re.1 at 10% discount rates at the end of 1st, 2nd, 3rd, 4th and 5th year are 0.9091, 0.8264, 0.7513, 0.683, 0.6209 respectively.

You are required to advise the company on which proposal should be taken up by it.

Q.3

A company proposes to install a machine involving a Capital Cost of Rs.3,60,000. The life of the machine is 5 years and its salvage value at the end of the life is nil.

The machine will produce the net operating profit after depreciation of Rs.68,000 per annum.

The Company's tax rate is 45%

The Net Present Value factors for 5 years are as under:

Discounting Rate :	14	15	16	17	18
Cumulative factor :	3.43	3.35	3.27	3.20	3.13

You are required to calculate the internal rate of return of the proposal.

Q.4

From the following details relating to a project, analyse the sensitivity of the project to changes in initial project cost, annual cash inflow and cost of capital:

Initial Project Cost (Rs.)	1,20,000
Annual Cash Inflow (Rs.)	45,000
Project Life (Years)	4
Cost of Capital	10%

To which of the three factors, the project is most sensitive?

(Use annuity factors : For 10% - 3.169 and 11% - 3.109).

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