



Moon light Ltd is considering a proposal to buy one of the two machines to manufacture a new product. Each of the machines requires an investment of Rs. 50000 and is expected to provide benefits over a period of 12 years. The firm has made pessimistic, most likely and optimistic estimates of the returns associated with each of these alternatives. These are as follow:

**B).**

Particulars	Machine A	Machine B
Cost	50000	50000
<b>Cash Flow Estimates</b>		
Pessimistic	8000	0
Most Likely	12000	10000
Optimistic	16000	20000

**(08)**

Assuming 14% cost of capital, which project do you consider more risky, and why?

**Q.3 Answer the following questions.**

**A).** A company is evaluating two mutually exclusive projects. Project X will cost Rs 10,000 now and will generate cash flows of Rs 5,000 each year over its life of four years. Project Y will cost Rs 2,500 and will generate cash flows of Rs 3,000 each year over its life of three years. Which project would you select assuming a risk-free cost of capital of 10 percent? **(07)**

1. The following sales estimates are given :

Sales	10000	12000	14000	16000	18000
Probability	0.1	0.15	0.20	0.30	0.25

The Selling price is Rs. 12 and Variable cost is 7 p.u. The fixed costs are 68000 p.a.

1. What is the probability that firm will continue to earn a profit of 20000 or more?
2. What is the probability that firm will breakeven?
3. What is the probability of firm reaching its Margin of Safety?

**OR**

**B).**2. From the following Balance sheet you are required to calculate EVA for the firm. **(08)**

Liabilities	Amt	Assets	Amt
Equity Share Capital	180000	Total Assets	600000
Reserves and Surplus	60000		
10% Debentures	240000		
Other Liabilities	120000		
	600000		600000

The Company's Total Asset Turnover ratio is 2.5 times. The fixed operating costs are Rs. 2 lakhs and the variable cost is 40% of sales. The company is in 50% tax bracket. The return on equity capital is determined at 12%.

**Q.4** Attempt any two questions. **(Each of 7.5 mark)** **(15)**

A firm has an investment proposal requiring an outlay of 40000. The investment proposal is expected to have 2 years economic life with no salvage value. In the first year, there is a 0.4 probability that cash inflows after tax will be 25000 and 0.6 probability cash flows after tax are 30000. The probability assigned to second years cash flows are as follows:

Cash flow year -I	25000		30000	
Cash flow year -II	(in Rs)	probability	(in Rs)	probability
1.	12000	0.2	20000	0.4
	16000	0.3	25000	0.5
	22000	0.5	30000	0.1

The discount rate for the investment is 10%.

You are required to:

1. Construct a Decision Tree for the proposed investment.
2. What will be NPV at worst yield? What is the probability of this occurrence of NPV? Which project will be accepted?

Nissan, the Japanese automaker, had watched its US sales slide 35 percent from their peak. The reason was that the quality and design of its cars simply did not keep up with those of other Japanese competitors, such as Honda, Mazda, and Toyota. While these companies had been innovators in introducing stylish, new round-car designs and cars such as the Miata and the Previa for new market segments, Nissan plodded along with its boxy Stanzas and Maximas, which were at least as expensive as the cars of its rivals. As sales and profits declined, the company realized that it needed to rethink its US strategy. As part of a companywide shakeup, Nissan appointed Earl J Hester berg as vice president and general manager of the US Nissan division and gave him wide authority to turn the US division's fortunes around.

2. Recognizing that Nissan was now far behind its rivals in terms of its reputation for product innovation and design, Hester berg decided on a new strategy for introducing the new Nissan mid-sized car: a cost-leadership strategy. The mid-sized cars of Nissan's rivals – the Toyota Camry, Honda Accord, and Mazda 626 – had increased steadily in size and price with each new model. A well equipped Camry or Accord, for example, had a sticker price of more than \$19,000. Hester berg decided that Nissan would not increase the size of its car and hence would keep its cost and price low. Nissan's designers were instructed to aim for a car that would be cheap to produce but of a quality comparable to that of other Japanese manufacturers. The result was the Nissan Altima, whose four-door base model lists for \$14,000 and the better-equipped one cost thousands less than the Camry or Accord. Nissan kept costs low by deliberately restricting the number of different models to these two, an approach that both Ford and Toyota, among others, have copied.

Another part of Hester berg's strategy was to concentrate most of Nissan's marketing budget (more than \$100 million) on the Altima and the Nissan Quest, its minivan, and to focus on building a large market share for these cars in order to build sales revenues. In marketing, Nissan was careful to emphasize the value of the Altima by comparing its quality with that of the Toyota Lexus, which costs three times as much. The results of this low-cost strategy were astounding. Nissan hoped to sell 100,000 cars in its first year; it sold more than 140,000. Although the profit margin on each car was lower than it was for the Accord or the Camry, the extra sales volume brought Nissan a huge profit. Its pursuit of a low-cost, low-price strategy in the mid-sized car segment has been very successful and has hurt its competitors. For example, for the first time in its history, Honda was forced to offer discounts on its Accord, and sales of the Toyota Camry and Mazda 626 were below projections. Clearly, a low-cost strategy can pay big dividends.

1. What were the reasons for the decline of Nissan after peaking in 1985?
2. What are the financial disadvantages of the 'low-cost' strategy Followed by Nissan?

Bahubali Limited is considering a Project for which the following estimates are available:

Initial Outlay	2000000
Selling price /p.u	120
Cost /p.u	80

3.

Year	1	2	3
Sales (in units)	40000	40000	40000

The cost of capital is assumed at 10% p.a.

The company wants to use Sensitivity Analysis to evaluate the risk associated in the project and its various parameters. Compute the Sensitivity of the following parameters:

1. Selling Price p.u
2. Cost per unit
3. Cash InflowsP
4. Cash Outflows

A Textile Company wants to purchase a machine for its expanding operations available at Rs 10 lakhs. The earnings before depreciation and taxes (EBDT) during its 5 year life are:

Year	1	2	3	4	5
EBDT (In Rs.)	350000	380000	400000	325000	250000

4. The rate of Inflation during the period is expected to be 8% and the stated EBDT are also expected to grow at the rate of inflation. The management policy of the firm is to evaluate its capital budgeting proposal by using cost of capital at 10%.

The firm follows a written down method of depreciation at the rate of 25% on the machine. The machine is also expected to yield a salvage value of Rs. 100000 at the end of year 5. The relevant tax rate is 35%.

Advice the company whether the machine should be purchased or not?