**P #1**

Smart Manufacturing Company is planning to reduce its labor costs by automating a critical task that is currently performed manually. The automation requires the installation of a new machine. The cost to purchase and install a new machine is $15,000. The installation of machine can reduce annual labor cost by $4,200 and annually cost of machinery increases $ 200. The life of the machine is 15 years. The salvage value of the machine after fifteen years will be zero. The required rate of return of Smart Manufacturing Company is 25%.

Should Smart Manufacturing Company purchase the machine?

**P #2**

Initial Cost of the project: $ 500,000/-

Annual incremental revenue $ 100,000/-

Incrementally Cost annually $ 200,000/-

Cost of Capital 8%

Life of the project 8 years

**Calculate the NPV of the project. Accepted or rejected**

**P #3**

**Calculate the NPV of the project.**

|  |  |
| --- | --- |
| Detail of the project | Relevant Values |
| Annual profit after tax | $ 25,000 |
| Cost of the project | $ 100,000 |
| Life of the project | 5 years |
| Interest rate | 12% |

**P #4**

|  |  |
| --- | --- |
| Detail of the project | Relevant Values |
| Initial outflow | $200,000 |
| Life of the project | 4 years |
| Cost of capital | 5% |

Annual Revenue and costs are as follow :

|  |  |  |
| --- | --- | --- |
| Years | Revenue | Cost |
| 1 | $ 50000 | $ 10,000 |
| 2 | $ 80,000 | $ 30,000 |
| 3 | $ 100,000 | $ 30,000 |
| 4 | $ 30,000 | $ 1200 |

**Comprehensive Problem**

Rupafil textiles Ltd. engaged in .a business in which they need investment in a plant which produced garments. The cost of the Plant is Rs. 10,000,000. Useful life of the plant is 20 years and economic life of the the plant is 10 year. After the end of economic life of the plant residual value of the plant is Rs. 5,000,000.

Direct material 1,000,000

Direct Labor 8, 00,000

FOH (Depreciation including other than plant ) 2,000,000

Total Sales 4,000,000

Note:

1. Depreciation for the year is 50% of FOH.
2. It is assumed 50% sales are credit basis and 50% sales are cash basis. Cash is recovered from the debtor in same period. But 10% of total sales is considered as bad debts.
3. Use straight Line method for depreciation of the plant.
4. Assumed that direct material is purchased on cash only and labor is paid on the spot..

**Comprehensive Problem**

KP Corporations engaged in rental business, purchased the land, construct the building and then rent it out and generate the revenue. Every building has 150 apartments, rent of 90 apartments is Rs. 50,000 per apartment each, next 40 apartments rent is Rs. 40,000, and other apartments rent is Rs. 30,000 each per month. Maintance cost of whole building is 25,00,000/- per year.

KP Corporation already possesses land with carrying amount Rs. 100,000,000/- If they construct the building following cost may be incurred.

Direct Material 80,000,000

Labour 10,000,000

FOH 10,000,000

It is assumed that Useful life of the building is 12 years, after that CDA (City Develepment Authority will allow it for residency. We can sale the land after the expiry of useful life.land can be sold for Rs. 100,000,000, but their will be a cost to dispose it which is Rs. 50,000,000.

Calculate the NPV.