ASSIGNMENT-4

- 1. If you deposit Rs. 5,000 today at 6 percent rate of interest, in how many years will this amount double? Work out this problem by using the Rule of 72 and Rule of 69.
- 2. X Ltd. Is producing articles mostly by manual labour and is considering to replace it by a new machine. There are two alternative models M and N of the new machine. Prepare a statement of profitability showing the pay-back period from the following information:

| | Machine M | Machine N |
|-----------------------------------|------------|--------------|
| Estimated life of machine | 4 years | 5 years |
| Cost of machine | Rs. 90,000 | Rs. 1,80,000 |
| Estimated savings in scrap | 5,000 | 8,000 |
| Estimated savings in direct wages | 60,000 | 80,000 |
| Additional cost of maintenance | 8,000 | 10,000 |
| Additional cost of supervision | 12,000 | 18,000 |

3. A company is considering investment in a project that costs Rs. 2,00,000. The project has an expected life of 5 years and zero salvage value. The company uses straight line method of depreciation. The company's tax rate is 40%. The estimated earnings before depreciation and before tax from the project are as follows:

| Year | Earnings before depreciation and tax | Presented value factor at 10% |
|------|--------------------------------------|-------------------------------|
| | Rs. | |
| 1. | 70,000 | 0.909 |
| 2. | 80,000 | 0.826 |
| 3. | 1,20,000 | 0.751 |
| 4. | 90,000 | 0.683 |
| 5. | 60,000 | 0.621 |
| | | |

You are required to calculate the net present value at 10% and advise the company.