1. Your firm borrows Rs. 1 million at an interest rate of 10% per year and loan is to be repaid in 4 equal annual instalments payable at the end of next 4 years. What proportion of the instalment payable at the end of year 2, represents principal repayment proportion?
2. Your firm borrows Rs. 2 million at an interest rate of 12% per year and the loan is repaid in 5 equal annual instalments payable at the end of the next 5 years. What is the annual instalment payable? What proportion of the instalment payable at the end of year 3, represents the principal repayment proportion?
3. Calculate the value 5 years hence of a deposit of Rs. 1000 made today if the interest rate is 8%, 10%, 12%, 15%.
4. You can save Rs. 2000 a year for 5 years, and Rs. 3000 a year for 10 years thereafter. What will this savings cumulate at the end of 15 years, if the interest rate is 10%.
5. Mr. Vinay plans to send his son for higher studies abroad after 10 years. He expects the cost of these studies to be Rs. 1million. How much should he save annually to have the sum of Rs. 1 million at the end of 10 years, if the interest rate is 12%.
6. At the time of retirement, Mr. Jingo is given a choice between 2 alternatives
7. Annual pension of Rs. 10000, as long as he lives, and
8. A lumpsum amount of Rs. 50000. If Mr. Jingo expects to live for 15 years and the interest rate is 15%, which option appears more attractive?
9. Suppose you deposit Rs. 10000 with an investment company which pays 16% interest with quarterly compounding. How much will this deposit grow to in 5 years?
10. How much would you deposit of Rs. 5000 at the end of 5 years be, if the interest rate is 12% and if the compounding is done quarterly?
11. Mr. X deposits Rs. 100000 in a bank which pays 10% interest. How much can he withdraw annually for a period of 30 years. Assume that at the end of 30 years the amount deposited will whittle down to zero.
12. What is the Present value of an income stream which provides Rs. 1000 at the end of year one, Rs. 2500 at the end of year two, and Rs. 5000 during each of the year3, if discount rate is 12%.