## ASSIGNMENT QUESTIONS

## OPEN COURSE : BUSSINESS MATHEMATICS (MM 1551.2)

1. If $y=f(x)$ be the equation of a curve. What is the slpoe of the tangent to the curve at a point p ?
2. A pressure cooker is available for Rs. 250 each or rs. 100 cash down payment followed by Rs. 165 after 6 months. Find the rate of interest charged under the installed plan.
3. If the demand function is $=16-x^{2}$, find consumers surplus at $\mathrm{x}=3$.
4. A person deposited Rs. 4,000 in a bank at $6 \%$ compounded continuously. After 3 years, the rate of interest was increased to $7 \%$ and after 5 more years , the rate was further increased to $8 \%$. The money was withdrawn at the end of 10 years. Find the amount.
5. If the marginal revenue of a firm is given by $M R=9-4 x^{2}$, find the total revenue R in terms of X . What can be maximum revenue possible?
6. Fit a straight line trend to the following data by least squares method. Estimate the sales for 2003.

| Year | : | 1996 | 1997 | 1998 | 1999 | 2000 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Sales (Rs. Lakhs) : | 70 | 74 | 80 | 86 | 90 |  |

7. Briefly explain advantages or uses of Index Numbers.
8. Differentiate $x^{3}$ from first principle.
