

ASSIGNMENT-I

- 1) What is Data Fitting and Interpolation?
- 2) What is least square fitting technique?
- 3) What is polynomial fitting technique?
- 4) Find the interpolated value for $x = 1.15$, using least square fitting technique for the following tabulated data

| | | | | |
|---|------|------|------|------|
| X | 1 | 1.2 | 1.4 | 1.6 |
| Y | 4.32 | 4.47 | 4.52 | 4.61 |

- 5) Determine the parameters a and b so that $y = a x^2 + b x$, fits the following data in least squares sense

| | | | | |
|---|------|------|------|------|
| X | 0.2 | 0.3 | 0.4 | 0.5 |
| Y | 0.64 | 0.99 | 1.36 | 1.75 |

- 6) The weather forecast of a particular city is given below

| | | | | |
|-------------|-----|-----|-----|-----|
| Day | 2nd | 4th | 6th | 8th |
| Temperature | 30 | 35 | 32 | 40 |

What will be the temperature on 10th day?