Final Exam Sheet

Chapter 4

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| Chapter 5 | |
| ***Line Fit*** | =  ( …….(1)  ( ………..(2) |
| ***Power Fit*** | , M is known constant (degree) |
| ***Data Linearization*** | Transformation for Linearization 🡪 make transformation to get Y=AX+B |
| ***Polynomial Fitting*** | 🡪 minimize error  🡪 Parabola |

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| Chapter 6 | |
| ***Central-difference formula for f’(x) of order*** | **Optimum Step Size** : |
| ***Central-difference formula for f’(x) of order*** | **Optimum Step Size**: |
| ***Central-difference formula for of order*** | **Optimum Step Size**: |
| ***Forward-difference formula for*** |  |
| ***General Method (Newton Poly.)*** | |  |  | | --- | --- | | ***Forward-Difference*** |  | | ***Central-Difference*** |  | | ***Backward-Difference*** |  | |

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| Chapter 7 | |
| ***Newton-Cotes Quadrature Formulas*** | For : , , ,  🡪 Trapezoidal Rule  🡪 Simpson’s Rule  🡪 Simpson’s Rule  🡪 Boole’s Rule |
| ***Composite Trapezoidal Rule*** |  |
| ***Composite Simpson’s Rule*** |  |