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1. Either
- a) Explain false position method for determination of zero. 8
 - b) Discuss solution of linear systems using Gaussian elimination method. 8
- OR**
- e) Discuss Newton-Raphson method. 8
 - f) Discuss Bisection method for determination of zero. 8
2. Either
- a) Explain Lagrange's interpolation formula. 8
 - b) What is finite differences and Divided differences? Explain it. 8
- OR**
- e) Explain central difference interpolation formula. 8
 - f) Discuss interpolation with equally spaced and unevenly spaced points. 8
3. Either
- a) What is least squares fit method? Explain it. 8
 - b) What is Simpson's $3/8^{\text{th}}$ rule? Explain it. 8
- OR**
- e) State trapezoid rule and discuss its importance. 8
 - f) Explain iterative method for linear equations. 8
4. Either
- a) Discuss Euler and Runge Kutta method. 8
 - b) Discuss Adam-mouton's method for predictor and correction. 8
- OR**
- e) Explain Milne's corrector formula of partial differentiations. 8
 - f) Briefly explain Jacobi and Gauss-Seidel methods. 8
5. Answer all the followings.
- a) Explain secant method for determination of zero. 4
 - b) Briefly explain Bessel and Everett interpolation formula. 4
 - c) Briefly explain Simpson's $1/3^{\text{rd}}$ rule. 4
 - d) Briefly discuss numerical solution of ordinary differential equations. 4
