

## ASSIGNMENT

1. State criteria in terms of Hessian matrix for convexity.
2. State criteria in terms of Hessian matrix for quasi convexity.
3. Using bordered Hessian matrix, when function is said to be concave?
4. Is function  $z = x^4 + y^4$  concave?
5. How bordered Hessian matrix is constructed?
6. Is  $z = (x + y)^{1/2}$  convex?