Constraints handling in GA

Dr. Rajib Kumar Bhattacharjya
Department of Civil Engineering
IIT Guwahati
Email: rkbc@iitg.ernet.in

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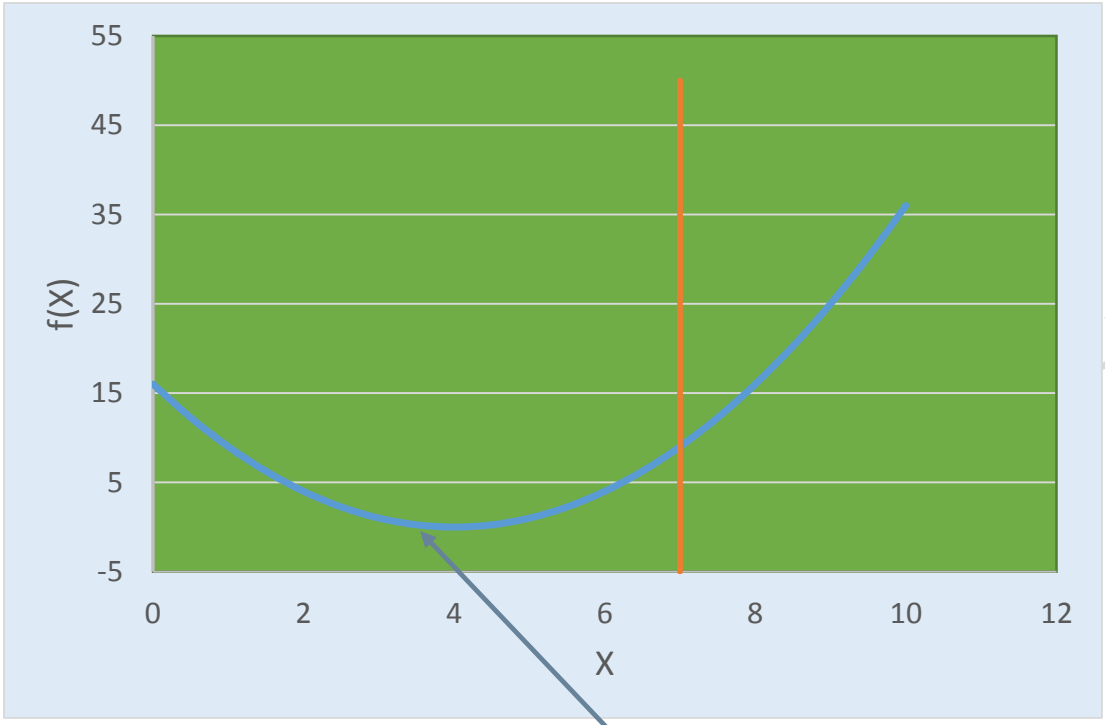
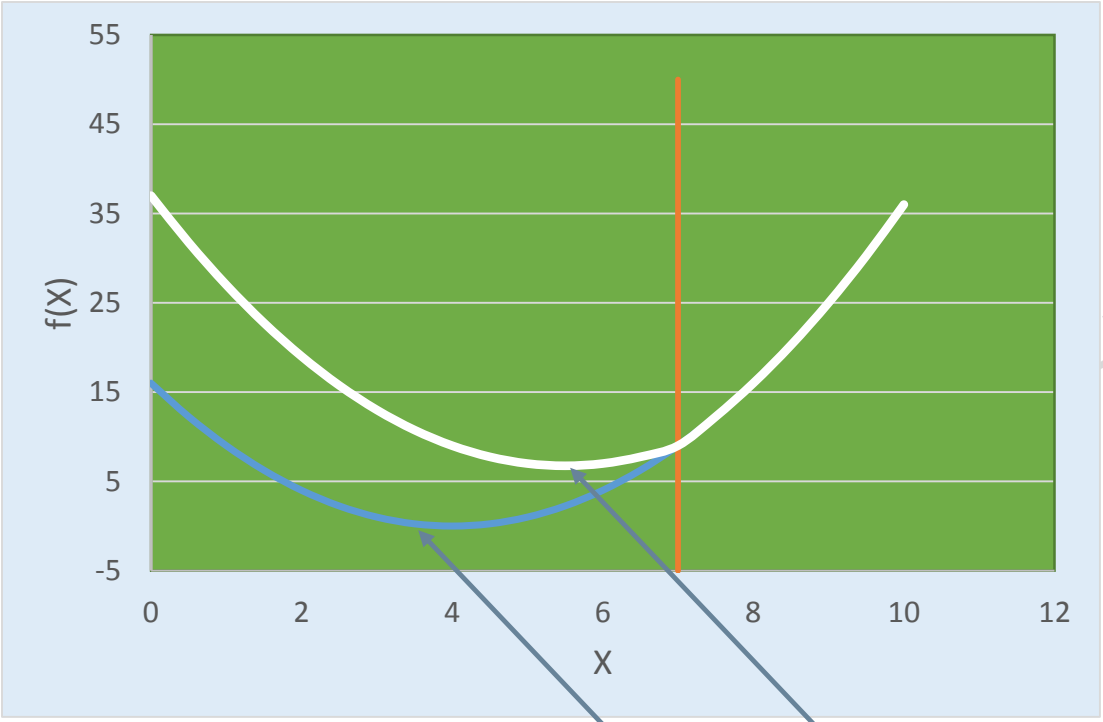
Constraints handling in GA



$f(x)$

Constraints handling in GA



$f(x) + R\langle g(x)\rangle$

$f(x)$

Constraints handling in GA

$f_{max} + \langle g(x) \rangle$

$f(x) + R\langle g(x) \rangle$

$f(x)$

Constrain handling in GA

Minimize $f(X)$

Subject to

$$g_j(x) \leq 0 \qquad j = 1,2,3,\ldots,J$$

$$h_k(x) = 0 \qquad k = 1,2,3,\ldots,K$$

Deb's approach

$$F = f(X) \qquad \text{If } X \text{ is feasible}$$

$$= f_{max} + \sum_{j=1}^{J} \langle g_j(x) \rangle + \sum_{k=1}^{K} |h_k(x)| \qquad \text{Otherwise}$$

THANKS