King Fahd University of Petroleum and Minerals
Department of Mathematics and Statistics
Math-201   Semester-121   QUIZ IV

NAME: S.No.   ID:

Maximum Marks: 10   Section:12   Time Allowed: 25 minutes
(1) Find and sketch the domain of the function $f(x,y) = \sqrt{y-x}\, \ln(y+x)$.

(2) Let $W(s,t) = F(u(s,t), v(s,t))$, where F, u, and v are differentiable,
$u(1,0) = 2, \frac{\partial u}{\partial s}(1,0) = -2, \frac{\partial u}{\partial t}(1,0) = 6, v(1,0) = 3, \frac{\partial v}{\partial s}(1,0) = 5, \frac{\partial v}{\partial t}(1,0) = 4,$
$\frac{\partial F}{\partial u}(2,3) = -1$ and $\frac{\partial F}{\partial v}(2,3) = 10$. Find $\frac{\partial W}{\partial s}(1,0)$.