

Exam II Answers  
Math 126 C Winter 2018

1.  $\frac{\partial z}{\partial x} = 2x \sin y^3$

$$\frac{\partial z}{\partial y} = (x^2 + y)(\cos y^3)(3y^2) + (\sin y^3)$$

2.  $\left(\frac{1}{2}, -\frac{5}{2}, -6\right)$

3. absolute max:  $\frac{8}{3\sqrt{3}}$

absolute min:  $-\frac{8}{3\sqrt{3}}$

4.  $\frac{112}{3}$

5.  $\iint_D f(x, y) dA = \int_0^{1/4} \int_{8x^2}^{\sqrt{x}} f(x, y) dy dx$

6. 126