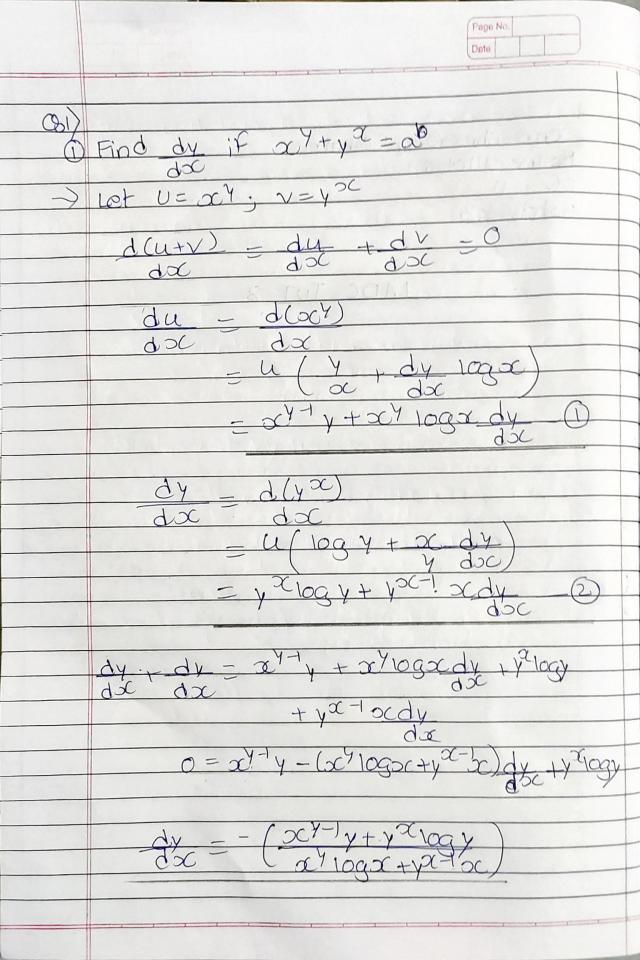
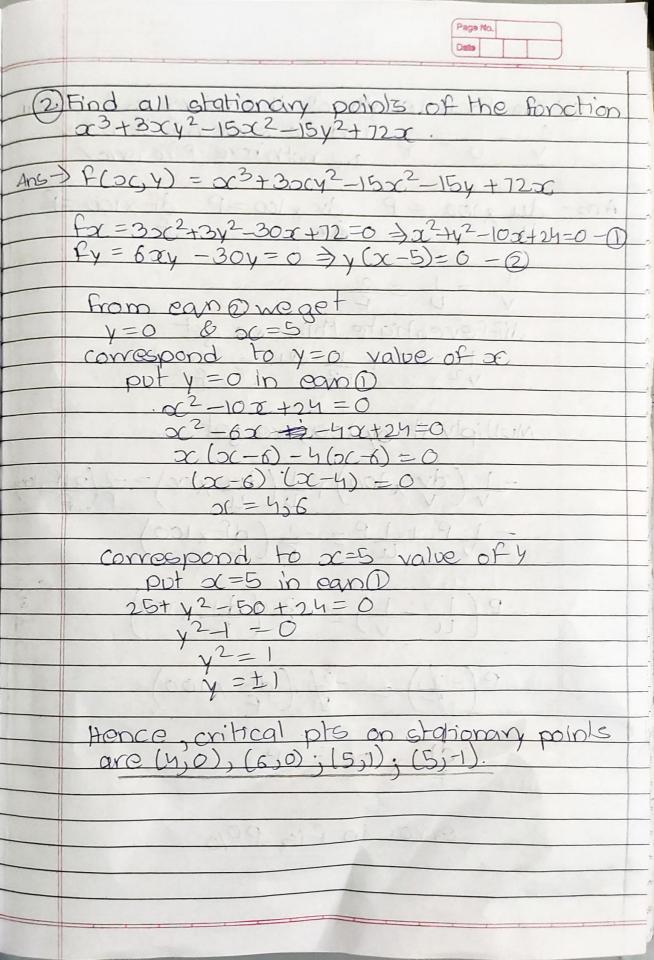
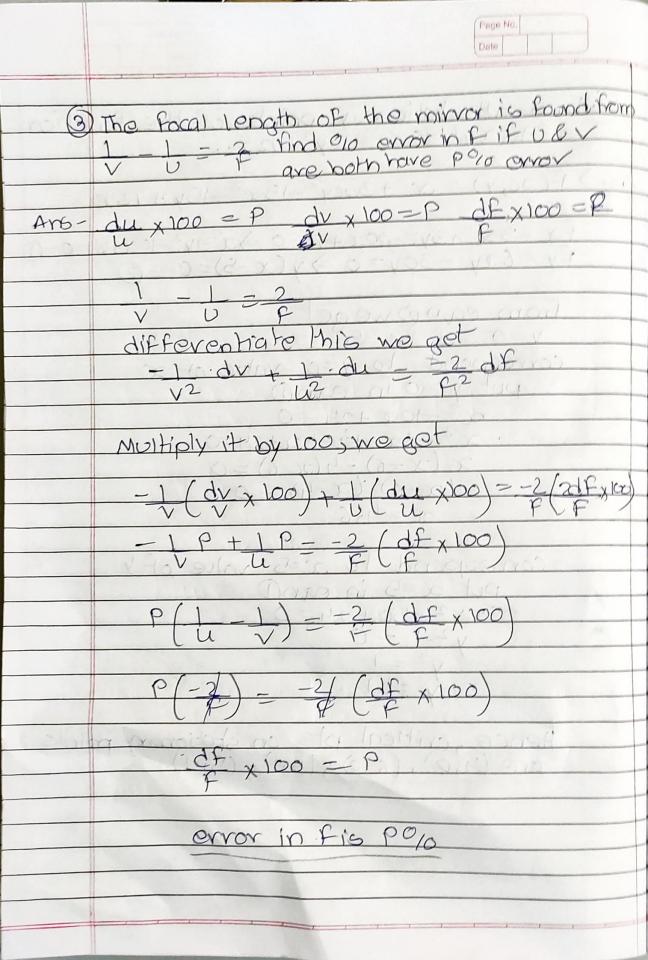
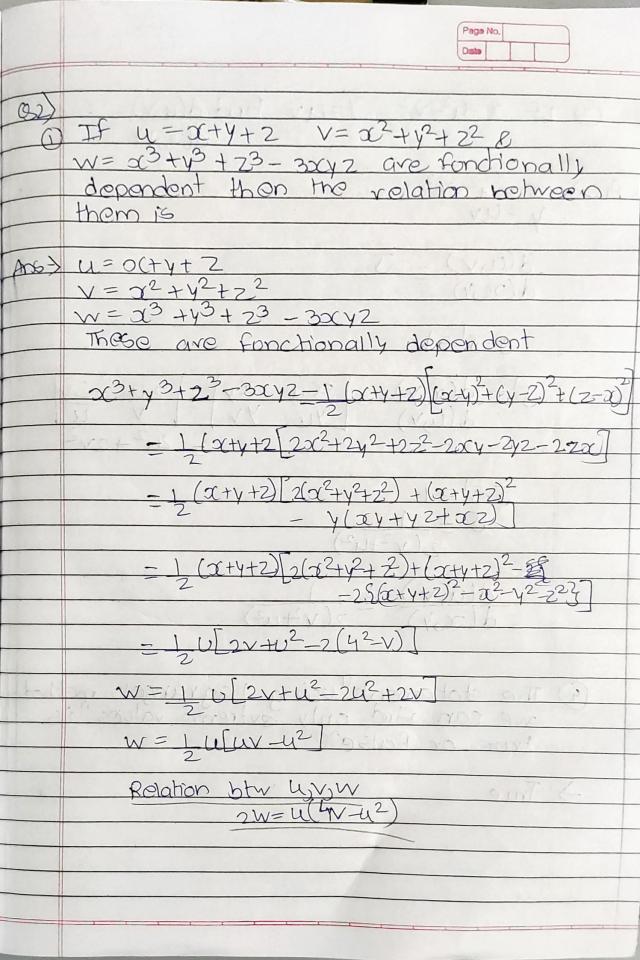
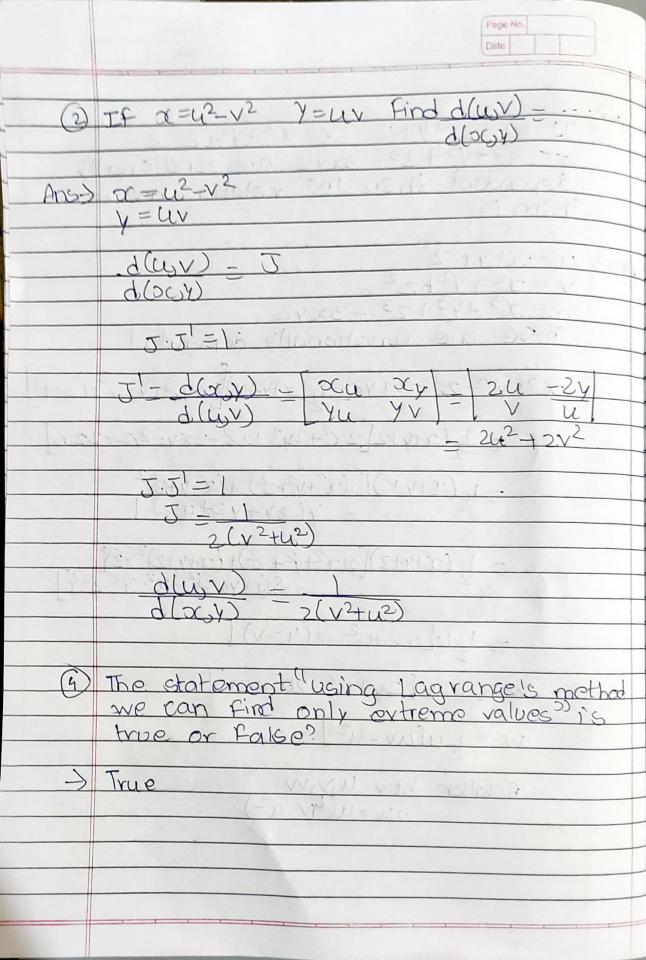
Page No. Date Name-Shreerang. P. Mhatre Roll00-111056 Div - 11 Batch- K3

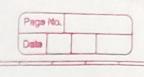












Ans
$$f(x,y) = (.50 - 3c^2 - y^2)/2 = 2$$

 $x = 2.9 \cdot y = y.1$
 $x = x + dx$ $y = y + dy$
 $= 2.0 + 0.9 = 4.0 + 0.1$

$$dz = (0.9) \left(\frac{1}{2} \left(-2x \right) + (0.1) \left(\frac{1}{2} \left(-2y \right) \right) \right)$$

$$2 \left(\frac{50 - x^2 - y^2}{2} \right)^{1/2} + \left(\frac{1}{2} \left(\frac{50 - x^2 - y^2}{2} \right)^{1/2} \right)$$

$$2 \left(\frac{50 - x^2 - y^2}{2} \right)^{1/2}$$

$$\frac{d2 = (0.4)(1 - 4)}{2(50 - 4 - 16)^{1/2}} + \frac{(0.1)(-8)}{2(50 - 4 - 16)^{1/2}}$$

$$\frac{-6.9(-2)(0.1)(-4)}{5}$$

$$\frac{-2.2}{5} = -0.44$$

$$f(2y) = (50 - 4 - 16)^{1/2} = 5$$