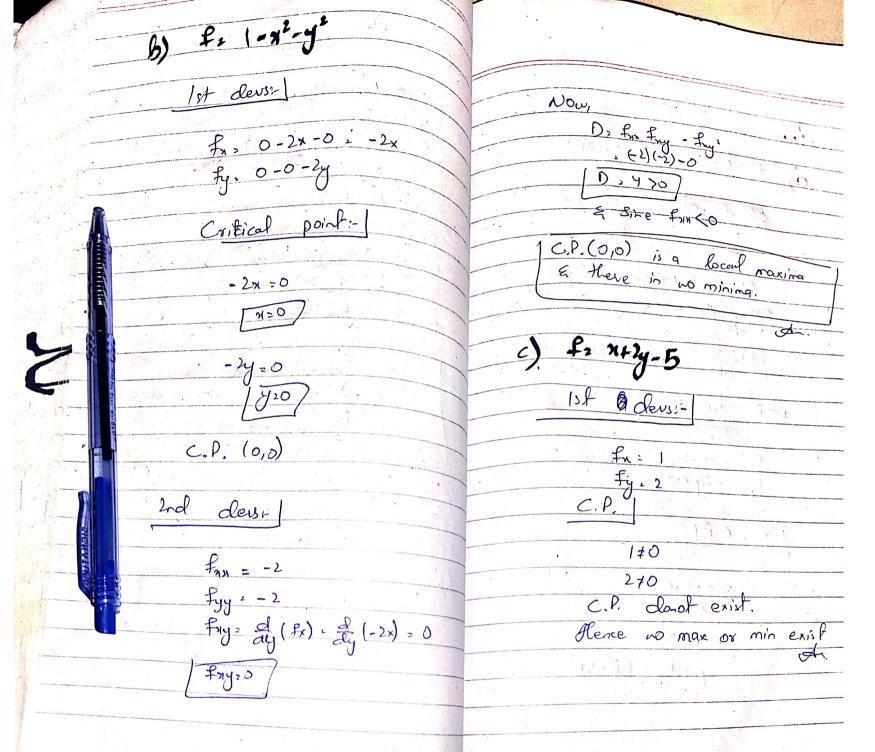
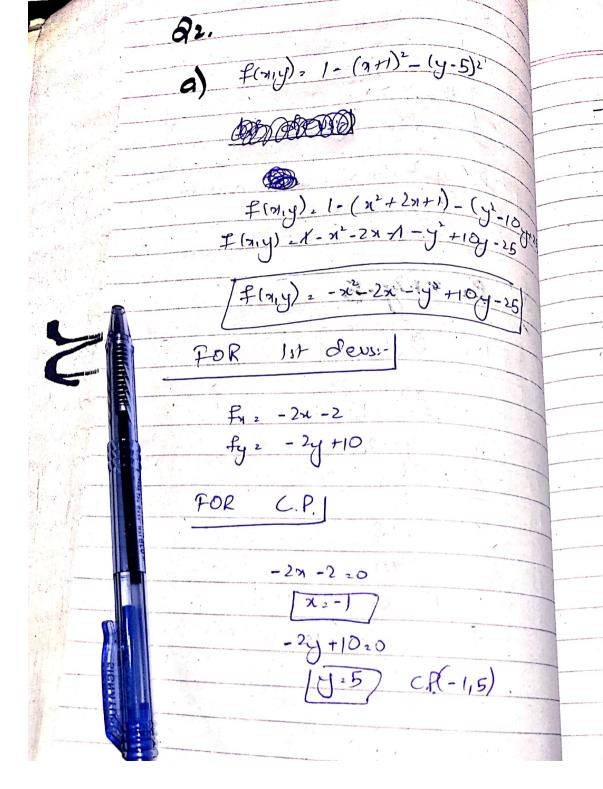


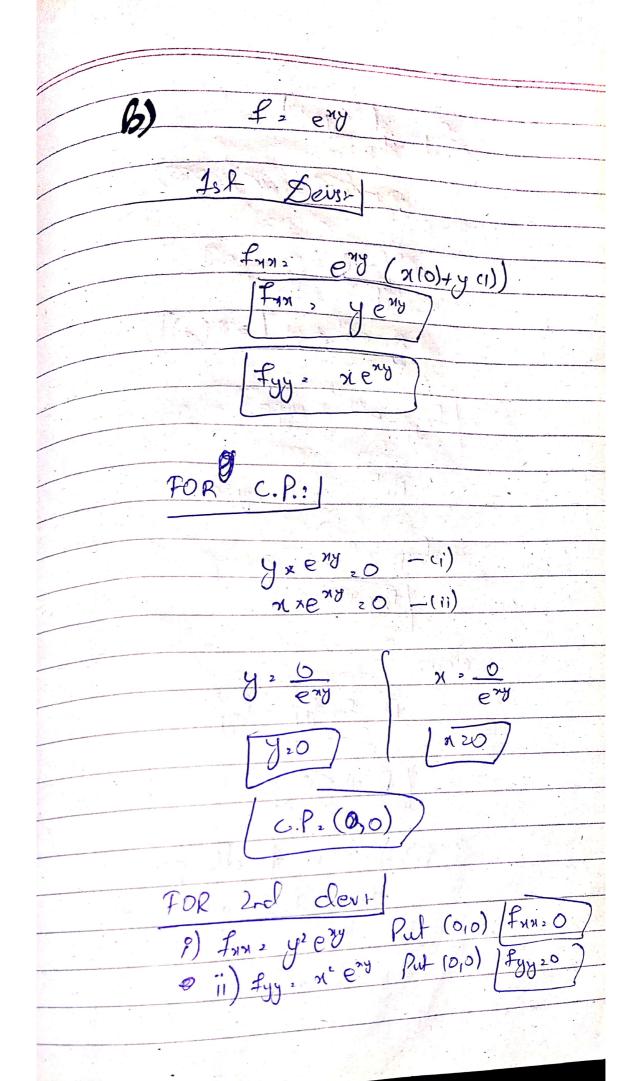
Ruestions clone using the method will be This

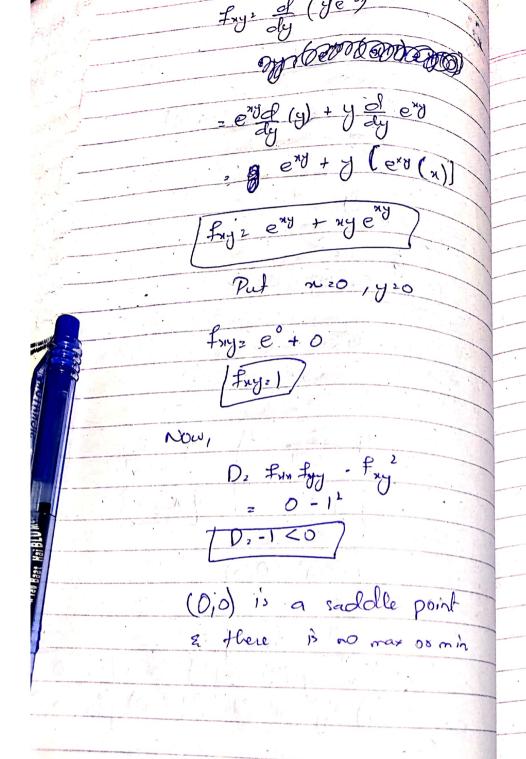
RI-4 E 2 9-20 2nd Derivatives V. Fyy 2 / fry 2 d (fx), of (2x-4) 9) fixing) 2 (21-2)2+ (y +1)2 Iny 20 (3,y) 2 n- 4n+4+ 93+214 D₂ f_{nx}. f_{yy} - f_{ny}, (2×2)-0²
D₂y >0
f_{nx} >0 1 St derivatives, Since fra 70 & Dzo fuz 271-4 - (i) (2,-1) is a relative minima fy, 24+2 - (ii) while no maximus exist. finding critical points: (i) 20/ / 2x -4:0 critical point (2,-1)



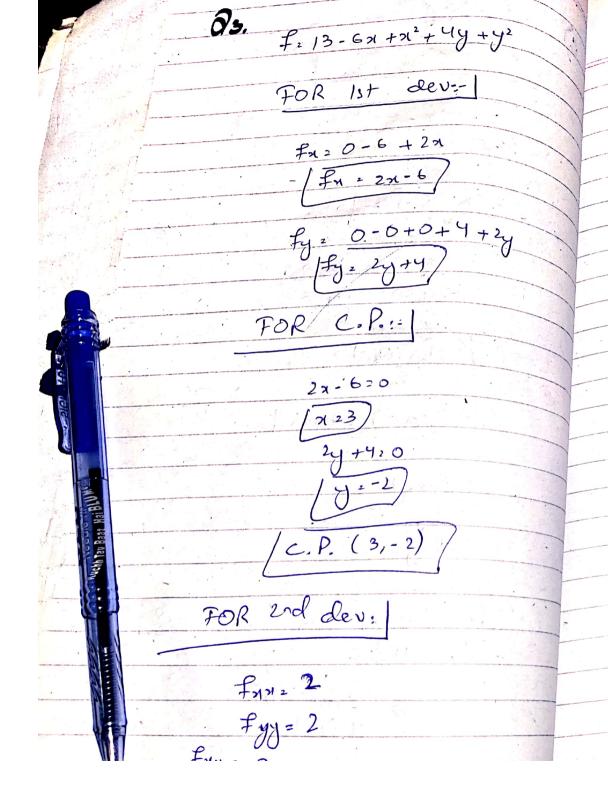


FOR 2nd devs FMN 2 -2 £ 44 = 0 Now, D. Fun for - Pay , (-2) (-2) - 0 PAX CO Thus C.P. (-1,5) is a relative max & there are no minimas





1st Olerinative: 2x=0 ; |x20) -2420 [C.P. (0,0) 2nd derivative: fyy: -2 fny = 0 D= frx fry- fry 2 21-2)-02 D2-460 gince DCO (0,0) is a saddle point



D. fun fyy - fny 2(2) - 02 D.470) fun70 1 Since D70 & fux >0 thus (.P. (3,-2) is a local min & no hocal max exist B4. f= 1-2x -x2+4y=242 FOR 1st dev: fx = 0-2-2x - 1- 1 - 1-2-2x x fy: 0+0+0+4-4y fy2 4-44 FOR C.P. 21 4-44-0 -2-2×20 -2 2 2× 12= C.P. (-1,1

