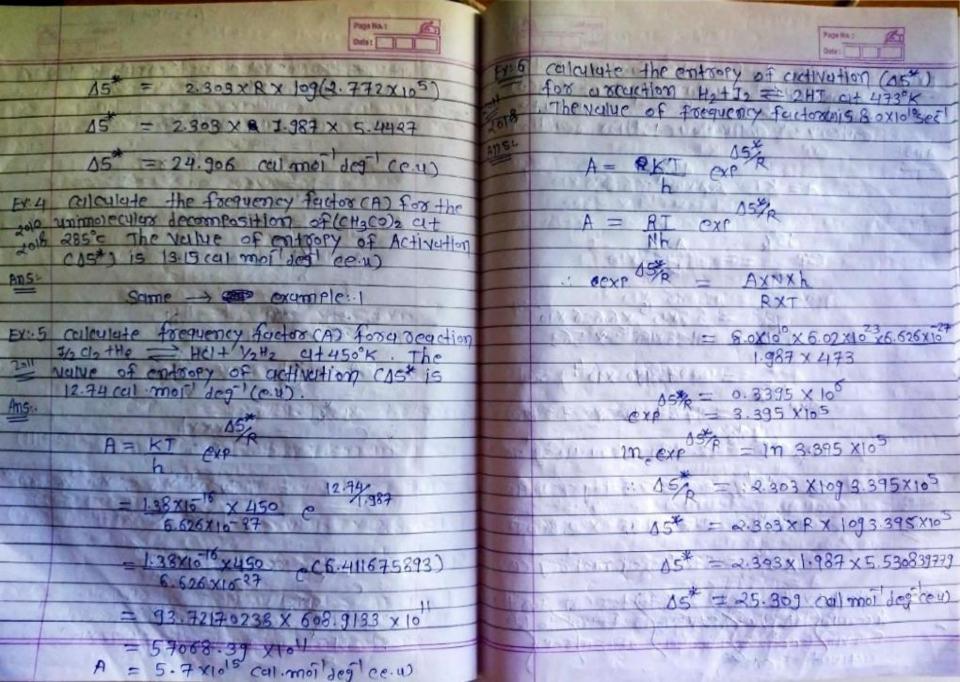
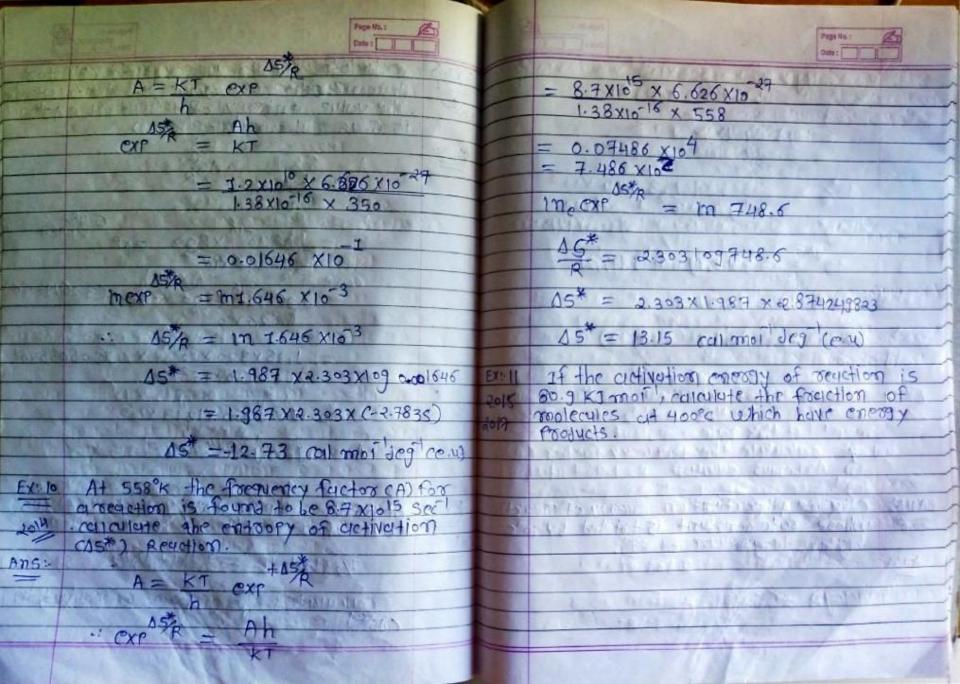
SCHEMICAL KINETICS :calculate frequency factor (A) forthe unimolecu lux decomposition of un oxyanic substance at 285°c. The value entropy of eletivation (15\*) is 13.15 cal moi degl (ce u) 15\* = 13.15 ralmoi deg eu T= 285°c = 285+273 = 558 K K= 1.38x 10-16 cogs molecule 10x eass 1 = 6.626 × 10-27 cross sec 2005 R = 1.987 (c) . 650 mg moj / deg THE WALL TOR calk - M Frequency factor (A) = (2) A = KT exp 15\* 13.15 - 1.38×10-16 × 558 × exp 1.987 6.626 x1527 = 1.38 x 16 x 558 0xp (6.6 | 80 | 7 | 11) 6.626X1527 = 1.38 × 15-18 × 558 (38.4595126) = 86982.15561 X1011 A = 8.7 × 1015 215051

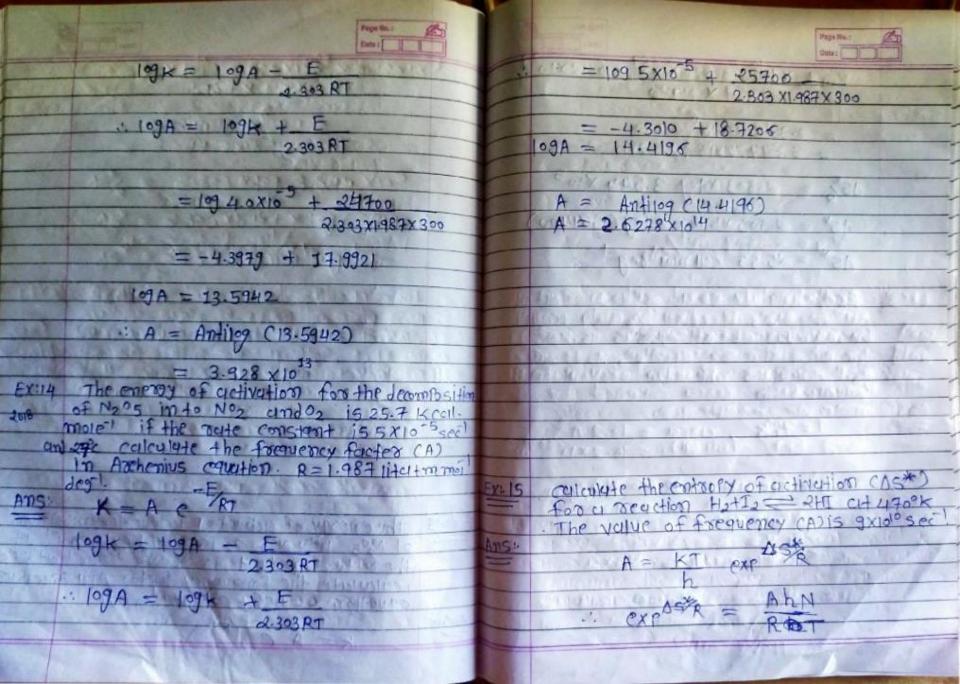
at 575 ok The value of frequency factor exist colculate frequency fuctor (A) for the CA) is 17.74 × 1610 5007 decomposition of Noos cut lesso. The value entropy of cictivation (15\*) A = 17 AUXIO 255 is 4.354 cal. more | deg - (co 4) T= 575 °K Ams K= 1-38 X10 16 CX95 15 = 4354 (all mole) deg (e.u.) h = 6.626 x10-27 ergreec K = 1.38x18\$ e 795 h = 6.626 x 10-27 0895 sec R = 1.787 Cal K 31/5 T = 25+273 = 298K R = 7.987 COLK MT (A = K) exe 45k A = (7) CE THE MINES WITHOUT A = KI exp /R to Bith man K-R/N = 1.38×10-16 × 298 × exp 1.987 A = RT exp. " 6.626x16-27 = 1.38x15 16 x 298 x exp C 2.191243.8) AXNXL RXT = 1.38 × 15 16 × 298 × 8-946327206 = 7.94 x100 x 6.02 x10 x6.626x10 6.646 X 10-27 1,387 X 545 - 555.250 XIO A = 5.55×108 266051 15%) = 0.2772 X16 = 2.772 X105 Collectate the entropy of activation (15) EX:3 for a modellon : Ine = In(2,77x10) 13 H2+12 = 2HI 15 = 2.309 x 109 2.772 x 105 ,10



At 290°c the frequency factor of the calculate the trequency fuctor (A) tox unimalecular decomposition of (Haco) Jecomposition of expense substance cH300Km found to be 8.5 x1015 sec-! calculate . The value entropy of activition cases 2012 entropy of activation (15\*) for reaction is 6.48 cal more reg ceus Ans: A = KT ext ASTR - 1.38×16 × 300 exp 6.48/189 CYP = 1.38x10-16 x300 x 0000 (3.261197986)  $= 8.5 \times 10^{15} \times 6.626 \times 10^{-27}$   $1.38 \times 10^{-16} \times 563$ = 1.38 ×300 ×10 16 × 26 0807576 = 0.072490 x104 6.626x1529 exp = 724.90 ex 7.2490x102 1629.55 XIO m 08 = 27 7 249 ×10 2 1 7 24.90 A = 1.629×10 4 Sec 15 = 2.303 log 724.90 March 18 1 Tomas Sales Sales 1940 Sales 9 At 350°K, the froquency forctor (A) hus value of 1.80 x10 "Sec" for reaction. 15 = 2.303 x 1.987 x 2.8602781 7/2 512+ H2 - HOI+ 1/2 H2 15 = 13.08 cal moi deg (PU) EX: 7 Calculate the frequency fortor CAD for the calculate the entropy of Activation (15\*) 8 5 Mod see . conveniend of emisory activation cos



The energy of activation for the decomposition <u>1:-13</u> of Nº05 into No2, 02 is124.7 K(a) moi the rute constant is 4.0×10-5 sect at 27°C i calculate the frequency factor Ain Arrenius equation R=1.987 calides mode ينين



= 9 x 10 x 6.626 x 10 37 x 6.02 x 10 23 3.844 X10 6 E' X = 2.303 X109 3.844 X105 15 = 2.303 x1.98,7, x 109 (384400) 15 = 25.55 culmoi leg