Nama: Albiruni Mbani	Elokto	skimia a a a a a a a a a a a a a a a a a a	ACAMANANA MARANANA ACA		
NPM: 140310190069					
WY THE WEST STORY OF THE STORY	ideal stemmer heads to	E Austrian Languages N	ankonos siko asrisa in		
1) Cases los the closimilars	Cardia R- Dua C	bloomle R.CO COLV	store the half reactions		
1) Consider the electrolysis of					
(a) Half-Reactions	anium metal can be	reduced by supprying	ors A for 30 minates:		
Ba2+ (molten) + 2e	→ 2	196483 10 = MORE	((/801) = MO(N)		
(b) i = 0.5 A		37 = 86.5	(1/801) 00.5		
t = 30 minutes = 180		2			
Ar Ba = 137	30 3	-01	# 5 mm = pm (d)		
	- 0 31		i = WAR 98500		
W = e it		- Audi	Total turk		
(A)		=D W = 0.6389 gran	1002101(0)=0		
	96.500	-D 00 - 010 093 91011	(100.)(12cm)		
2) Considering only the cost		ld is to chance in To	adaro a ton of Calam		
or a ton of Alumunium		more the charge to be	blace a lon of Johnni		
Rumus Umum	by ciecuro 19515.	Calculate For	10 a 60 x 10 mg - (aq)		
W= eit = i=			De tent to man		
96500	e t	e1 1	S - P AWAY		
e sodium = 23 = 23			ed oda i		
C 500/14/1	Semakin besar nilai e maka Semakin kecil nilai i Jadi, untuk memproduksi Sodium lebih murah Jika dibanding kan				
e Alu = 27 = 9	dengan memproduksi Alumunium				
3	2 = (n) northold long				
3) Calculate the amounts of (u dan Bra Droducos				
CuBrz by a Current of 4.1		c m · - m wo more clos	Fig.		
Weu = e.i t		No = e i+) 1000) (A) 8(, 8) H (A) (A)		
96.500			(2)[9650		
Wa = (63,5/2)(4,5)(3600)		= (80/1)(4.5)(3600)			
36500		96500	Feel = 0.366		
Wcu = 5,33 gram	N N N N N N N N -	NBr = 13,43 gram			
4) The Passage of a Curren					
a CuSO4 Solusion. From					
$W=\bar{i}et$ 25 menit	= 1500 8	I would file faint of i	abanasala ala al		
96500	E FORMAR XX	e= Ar	e a laM		
	= (0:369) 96500	e	1 6/1/0/1		
		32 = Ar =0 Ar=			
it	1001001	111			
āt e					
e	= 31,625	2 2 = 101	2 emg - 1 mal e		

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5) A Constant electric curren	t flows for 3,75 hour thr	ough two electro	lytic Cell's Connected		
in series. One contains a	Solusion of Ag NO3 and the	e second a Solusin	on of CuClo During		
this time 2.00 gram of Silver are deposited in the first cell. (a) How many grams of copper					
are deposited in Second Cell? (6) What is the current flowing, in Amperes?					
(a) Wen = ear	Wcu = (63,5)(2.00)	o losgra munaria a	a smood thing woll (d)		
WAG EAG	2.108		enotions - Holf (a)		
Wcu = (63.5/2)	Weu = 0, 58796 gram	(2) A - 3	Pol ²⁺ (motion) + 2		
2.00 (108/1)	7.08 = 481 = 9		A 2.0 = 7 (d)		
(b) Wag = eag i t	2	2 008)	= 390 0000 08 = 3		
96500			f67 = 67-A		
i = Wag: 96500		## 9 = W			
eag t					
i = (2)(96500) = 0 $i = 0,13237$ Ampere					
(108)(13500)		005-96			
6) The equilibrium Constan	t for the reaction	use of electricity	2) Considering saly the		
Srcs) + Mg2+ caq) = Sr2+ caq) + mg cs)					
15 2.69 × 10° at 25°C.	Calculate E° for a cell ma	de up of Sr/Sr2+	and Mg/mg2+ half cells		
Sr + Mg2+ = Sr	t + Mg s s som prof	30298 W =	1 to 1 9 = W		
1	19	J 9	96500		
oks. red	Molomas adam 9 Tajin 702	Semarkin be	P 9 selven = 23 = 23		
Reduks: Mg2+ + 2	e -> Mg ? asinharman	Jodi anest			
	→ Sr2+ +2e-		R = FR = un 9		
mol e	lektron (n) = 2		3 - 1		
E'ceil = RT In (K) 9 mont de la					
nF ARA 90 married to and					
E'ce11 = [8,314] (29	18) In (2,69 x 1012)	de - dinem od	Wen = 63 & &		
(2)(96500)			96.500		
E'cell = 0.0128 (28,62)		(30.15	Was (63.5/2) (A.6) (
F'cell = 0,366 Volt. 00000					
7) The half-Reaction at an			- mon 88.2 = u1W		
Mg2t (molten) + 2e	-> Mg cs)	102f 0 70 mor	14) The Passage of a Cur		
Calculate the number of grams of magnesium that can be produced by Supplying 1.00 F					
to the electrode	0	2 000 E 1600 S	10 22 4 5 5 = 1/1		
Mole = 2	gr Mg = mole x Ar	Ma	96500		
mol mg i	9 2000	P (880) = 90	e w. 96500		
Mol mg = $\frac{1}{2}$ mol $e^{-\frac{1}{2}}$	2 1 × 24,312	D(025.6)	+3		
2	2 2	9 : 31,625			
gr Mg = 1 mol e gr Mg = 12,156 gram = 8					
gr Mg = 1 mole	o. J				
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8) One of the half-reactions for the electrolysis of water is
     2H2O(1) -> O2 (g) + 4H+ (aq) +4E-
  If 0,076 L of Oz is collected at 25°C and 755 mm Hg, how many moles of electrons had
  to pass through the Solusion?
   P= 755 mmHg x 1 atm | PV = no, RT
                   760 mm Hg noz = (0,993)(0,076)
                            (0,0821)(298)
   P = 01993 atm
                            Noz = 3,082 × 10-3 mol
    mole = 4 => mole = 4 x mol o2
    mo(O_2 	 1 	 mole = 4 (3.082 \times 10^{-3})
                    more = 12,349 mmol
9) Calculate the emf of the following Concentration cell:
    Mg (s) | Mg2+ (0,24M) | Mg2+ (0,53M) | Mgcs,
   Reduksi : Mg2+ (O(53 M) +2e -> Mg es)
                    Mg (s) -> Mg2+ (0,24m) +2e
    Oksidaçi :
                     Mg2+ (0,53M) -> Mg2+ (0,24M)
     K = 0,29
                       E° = -2,37 + 2,37
                       E°= 0 V
       0153
     E = E° - 0,0257 In (K)
     E = 0 - 0:0257 In 0:29
     E = 0 - (-0,0(02)
      F = 0,0102 V
(0) What is the emf of a cell consisting of a Pb2+/Pb half-cell and a Pt/H+/Hz half-cell
   If [Pb2+] = 0.10 M, [H+] = 0.050 M, and PHz = 1.0 atm?
    Reduksi: 2H+cag) + 2e- > Hz cg) [E°= OV
    Oksidasi: Pbus) -> Pb2+ (aq) +2e- [E0 = - 013V -
             2Htaq + Pbis -> Hzig) + Pb2tag) E° = 0,13V
         K=[Pb2+]PH2
                           E=E°-RT In(K)
         K = (011)(1)
                           E = 0.13 - 0.0257 In (40)
            (0,05)2
                           F = 0,13 -0,0979
         R = AD
                           E = 0.0826 V
```