Qno1.

Propositional Calculus.

(b)

(C)

(1)

P= Jou gu to Morico. q = I follow Jou. Y = I will be able to find you. [P Aq) = TY Qno: 2. (A) All dancers lave to dance. Yx (dancers (N) = love (dance, N)): (b) Everyone who sings and plays an instruments to love to dance. Yx ((sing (N) & plays (N) = love (dance, N)): (C) All dancers sing and play an instrument. Yx (dancers (N) = (sing (N) & plays (N)) Canclusion: let dancers (N) = P love (dance, N) = q sing (N) & plays (N) = Y from (a) P=q from (b) Y = q using hapathetical syllogism P = r which is located.	101		
q = I follow for. Y = I will be able to find for. (P Aq) = TY Ono: 2. (A) All dincers: love to adance. Yx (dancers (N) = love (dance, N)). (b) Everyone who sings and plays an instruments to love to dance. Yx ((sing(N) & Plays(N) = love (dance, N)). (C) All dancers sing and play an instrument. Yn (dancer(N) = (sing(N) & Playn(N)) Canclusion: let dancers (N) = P love (dance, N) = cy sing (N) & Plays (N) = Y from (a) P = q from (b) Y = q using hypothetical syllogism Our which		0- 700 go to Mexico.	particular de la constitución de
(PAQ) => 7Y Qno.2. (A) All dacers love to adance. Yx (dancers (x) = love (dance, x)). (b) Everyone who sings and plays an instruments to love to dance. Yx ((sing(x)) & Plays(x)) = love (dance, x)). (c) All dancers sing and play an instrument. Yn (dancer(x)) = (sing(x)) & Plays(x)) canclusion: let dancers (n) = P love (dance, x) = q sing (x) & Plays (x) = Y from (a) P-q from (b) Y-q using by Pothetical syllogism D-r which			-
(i) Aq) = 7Y Qno.2. (A) All dancers lave to dance. YX (dancers (x) = love (dance, n)). (b) Everyone who sings and plays an instruments to love to dance. Yx ((sing(x) & Plays(x) = love (dance, x)). (c) All dancers sing and play an instrument. Yx (dancer (x) - (sing(x) & Playx(x)) Conclusion: let dancers (x) = P love (dance, x) = Cy sing (x) & Plays (x) = Y from (a) P = q from (b) Y = q using hapathetical syllogism.		Q=1 Tond to find tou.	
Qno.2. (A) All dincers love to dance. Yx (dancers (x) + love (dance, x)). (b) Everyone who sings and plays an instruments to love to dance. Yx ((sing(x)) & Plays(x) + love (dance, x)). (c) All dancers sing and play an instrument. Yx (dancer(x) + (sing(x)) & Plays(x)) Canclusion: let dancers (x) = P love (dance, x) = Q sing (x) & Plays (x) = Y from (a) P = q from (b) using hallothetical syllogian Our which		V=1 Will be able	
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(b) Everyone who sings and plays an instruments to love to dance. VM((sing(M) & Plays(M) - love (dance, M)). (c) All dancers sing and play an instrument. VM(dancer(M) - (sing(M) & Playm(M)) Conclusion: let dancers (M) = P love (dance, M) = Cy sing (M) & Plays (M) = Y from (C) P-q from (C) V-q using hapothetical syllogism D-r which		Wy (dance, M).	
instruments to love to dance. VM((sing(M) & Plays(M) - love(dance, M)). (C) All dancers sing and Play an instrument. VM(dancer(M) - (sing(M) & Playm(M)) canclusion: let dancers(M) = P love(dance, M) = Q sing(M) & Plays(M) = Y from(a) P-q from(b) V-q using haplothetical syllogism D-r which	141		
VM((sing(M) & Plays(M) - love (dance, M)). (C) All dancers sing and Play an instrument. Vn(dancer(N) -> (sing(M) & Playm(M)) canclusion: let dancers(N) = P love (dance, x) = Cy sing (M) & Plays (M) = Y from (G) P-19 from (b) Y-19 Using haplothetical sallogism D-17 which			
(C) All dancers sing and play an instrument. Vn(dancer(n) -> (sing(n) & playn(n)) canclusion: let dancers(n) = p love(dance,n) = c, sing(n) & plays(n) = r frum(a) P -> a frum(b) r a using hapothetical syllogism D -> r which a			
instrument. Yn (dancer (n) -> (sing(n) & Plagn(n)) conclusion: let dancers (n) = P love (dance,n) = q sing (n) & Plags (n) = r from (a) P-q from (b) r-q using hapathetical syllogism P-r which		Un((sing(n) e Plays(n) - love (dance,n)).	
instrument. Yn (dancer (n) -> (sing(n) & Plagn(n)) conclusion: let dancers (n) = P love (dance,n) = q sing (n) & Plags (n) = r from (a) P-q from (b) r-q using hapathetical syllogism P-r which	(C)	All dancers sing and play an	
conclusion: let dancers (n) = P love (dance,n) = cp sing (n) & Plays (n) = r from (a) P-q from (b) r-q using hapathetical syllogism D-r which			
conclusion: let dancers (n) = P love (dance,n) = cp sing (n) & Plays (n) = r from (a) P-q from (b) r-q using hapathetical syllogism D-r which		Vn(dancer(n) - (sing(n) & plazn(n))	
let dancers (n) = P love (dance,n) = cy sing (n) & Plays (n) = r from (a) P-1q from (b) r-q using happothetical cyllogism P-1r which			
love (dance, n) = q sing (n) & Plays (n) = r from (a) P-19 from (b) r-19 using happothetical cyllogism D-1 which			
sing (u) & Plays (u) = Y from (a) P - 9 from (b) Y - 9 using hapathetical cyllogism O - Y which			
from (a) P-19 from (b) r-19 using happothetical syllogism D-15 which		TOVE (clance, x) = cy	
from (b) r-a using hypothetical syllogism Our which		sing (n) & Plays (n)=r	
using happothetical syllogism		frum (a)	.,,
using happothetical syllogism.		$P \rightarrow q$	
using happothetical syllogism		from (b)	
using happothetical cyllogism		r	
Dar muish is 12 dillodism		CINA LADOH OLE	
Dar which		Journal Milodism	
		Par which is ICI	

Q10.3.				
(a)				
$\vdash A \rightarrow A$				
A Assumption				
$A \rightarrow A$	-introduction			
(6)				
+ ((¬A - ¬B) - A).	- ((-B -> - A) -> -B)			
7 A -> -B , -A	assumptionis			
~ B	modus Ponens (ii)			
$\neg B \rightarrow \neg A$	- introduction (iii)			
A	assumption (iv)			
(7A-1B)-A	- introduction (i and ir) (a)			
(7B - 7A) - 7B	- introduction (iii and ii) (b)			
((¬A ¬¬B) ¬A) -, ((¬	B - 7A) - 7B)			
	introduction (a & b)			
(C)				
+(777A ->77	1B)-1(-A-1B)			
7 A, 7B	assumptions			
7 A 7 7 B	-introduction (a)			
777A.	77 Elimination			
777B	77 Elimination.			
777A _777B	- invoduction (b)			
	6)			
	A _ B _ introduction.			