## 國立暨南國際大學 學年度第 學期期中考試試卷記 任課教師: Klim 科目名稱: Lisp 教師簽章 系/所別:凌工·年級:一學號:10岁32七0/姓名:美梅我/ (/ (tan (- x (\* y (cos y)))) (sin (+ x y)) ali (an -) in -) in -) a) (define (tigz a b) (if (>=/a b) a b)) b) (défine (big3 a b c) · (big2 (big2 a b) (e)) c) (défine (big4 a b c d) (big > (big3 a b c) d) (( lambda (x y z) (\* (- x y) Z)) (\* Y 5) (+ x 2) (+ x y) b) (x-y) = (10-5) 5 = 25 all affected of the service also transfer and applicabilities and interest and (define (f n) X = (cont = n 0) 8)( (= n 1) m 1) bom (x/) ((= n 2) 9) ((add7 n) (+ (f (- n 1)) (- (f (- n 2))) (f (- n 3)) (eke (+ (f (- n 1)) (f (- n 2)) + (f (-& (define If n) (défine (îter i n1 n2 n3 ms)

4.	b) (define (f n)
	(defre (iter i n1 n2 n3 res)
	(if (); in)
	ves .
	(if (odd? i) (iter (+ i 1) res ni nz
	(+ n1 (- n2) h3))
/	(iter (+ i 1) res n/ n2
15	(+ n1 n2 (-n3))))
X	(cond ((= n 1) 8)
1	$I(= n\rangle I)$
	((= 12)/4)
	(else (iter (4) 8 190)))
5.	a) $(a \leftrightarrow b) \leftrightarrow c = (a + b + a + b) \leftrightarrow c$
	$= a \times b \times c + a + a + b + a + b + c$
	( a 45 (b 45 C) = a 1+7 (b*c+b+c)
	mose = axbxc+ab+ac+bxc+a+b+c
	> time the expression are equilbent, the operator is associa
	1) (define (fast-bn b n) jia 47 a 47 a. (A) a = (a+1) -1
	5 (- (expt (+ b 1) N) 1))
	(- (expt (+ b 1) n) 1))
,7	(define (expt b n)
1	(défine l'iter base c res)
	(if (= c o) res
	(if (odd? c) liter base bush) (- c1)
	(* Yes base
	(iter (* base base) (1 c 2)
	nes)))

(iter b n 1) 第二頁

6.	a) (défine (fiftered-sum fifter a b)
	(défine (iter i res)
	(if (> i b)
	res
	(if (filter i)
, 1	(iter (+ i 1) (+ res i))
117	(iter (+ i 1) res)))
	(iter a o))
	b) (define (modsum a b m)
	(filter-sum a.
	b
	(lambda (x) (= (modulo x m) 0)))
	第二百

第三真

第一頁(+lower a)