

A cfX i bX =bhf][Yb. '8]Y 8cbUi ']gh'h]YZ' VY[Y]ghYfh'DUggUi Yf Ni gW Ui Yf'

5a '&\$"\$*"&\$&) ``]YZ'XYf'?f]a]'/ ei ch/8]Y '8 cbUi ']gh h]YZ' ei ch/'Ui g'DUggUi ']a 'HJ /'Yhnh']b 'XYf'' gUh!A YX]Uh\Y_ ghfYUa Yb"



DUggUi ž'8 Yi hgWX `Ub X '! '9]b '\Y]» 'X]g_i h]YfhYg'H\Ya U']a

XYi hgWX Yb : YfbgY\Yb 'k Uf'Ua : fY]hU[ž'XYa '&\$"' is b] '&\$&) ž'XYf

Gd]Y `Z]`a 'l 8]Y '8 cbUi ']gh'h]Y Zi ž'XYf']a 'F U\a Yb 'XYf'FY]\Y'l ? f]a]g

Ui g'DUggUi l 'Ui Z' gUh'Ui g[YghfU\`h'k i fXY" 8Yf'? f]a]'j cb 'A Ui f]WY

< ØVbYf'nY][h'i bg'X]Y 'dUW_YbXY'; YgWX]WX hY 'XYg'Df]j UhXYhY_h]j g

: YfX]bUbX 'NUb_`ž'XYf'XYg'A cfXYg'Ub'gY]bYf'9I!: fUi 'VYgWXi `X][h

k]fX"'8]Y '5i gghfU\`i b['ZUbX'i a '&% (('I \f'ghUhhž'i bX'b])WX h

ni 'Yhnh'ZØf'X]Y'? f]a]!: Ubg'V]YhYh'X]Y'' gUh!A YX]Uh\Y_'X]Y

A Ò[`]WX_Y]hž'XYb ::]`a 'Ui WX 'cb`]bY'ni 'ghfYUa Ybž'cVk c\``b]WXh'U``Y

GYbXi b[Yb 'Xcfh'j YfZØ[VUf'g]bX'i bX'_Y]bY'K]YXYf\c`i b[']a

_`Ugg]gWXYb'HJ '[Yd`Ubh']gh''8Yf':]`a 'k i fXY' &\$&\$'dfcXi n]Yfh'i bX

]gh'UV'%&'J\\fYb'ZfY][Y[YVYbž'\Uh'i bhYf'UbXYfYa 'X]Y

GWX Ui gd]Y'Yf'A Uf]Y '@Yi YbVYf[Yfž'A]WX UY''C ghfck g_]'i bX'BUX'U

± XYf' < Ub X`i b['k]fX'NUb_`'d`Ohn`]W. 'a]h'gY]bYf'Xi b_`Yb J Yf[Ub[Yb\Y]h'_cbZfcbh]Yfhž'U`g'gY]bY'9I!: fUi ž'Bi bn]U'Fcgg]ž Yfa cfXYh'Ui Z[YZ]bXYb'k]fX"'?i fn'j cf'gY]bYf'J Yf\UZhi b['\UhhY NUb_`XYb'@Y]W. bUa 'Y]bYg'UfUV]gW. Yb'5i ZhfU[g_]``Yfg'j Yf[fUVYbži a 'gY]bY'?ca d`]n]b': fYXYf]_Y'6UXYf'ni 'gW. ØhnYb"'Gc'Z]bXYh'g]W. NUb_``]b'Y]bYf'Ui gg]W. hg`cgYb'@U[Y'k]YXYf. 'K À\fYbX'Yf']a; YZÀb[b]g'g]hnhž'a i gg'Yf'i bhYf'8fi W_': fYXYf]_Y'XUni 'VYk Y[Ybž ZØf'gY]bY'I bgW.i 'X'ni 'Yfa]hhY`b"'8cW.': fYXYf]_Y'XY]bY'9I! Dc`]n]gh]bž']gh'ni bÀW.gh'g_Ydh]gW.ž'g]Y\h'g]W.'YXcW.'[Ynk i b[Yb'ni\Y`ZYbž'i a ']\fY'HcW.hYf'ni 'gW.ØhnYb"'8]YgYf'?cbZ]_h'nk]gW.Yb dYfgÒb`]W.Ya 'GW.i hn'i bX'`c\bYbXYf'J YfdZ]W.hi b['V]`XYh'XUg < YfnghØW_'XYg'gdUbbYbXYb'H\f]``Yfgž']b'XYa 'X]Y'NY]h'XfÀb[h'i bX Y]bY'; YZU\fYb`U[Y'Xfc\h'

8Yf?f]a]\cf]ncbh]b 8Yi hgW\`UbX

8]Y?f]a]bU`]hÀh`]b`8Yi hgW\`UbX`nY][h`gY]h`[YfUi a Yf`NY]hY]bYb
FØW_[Ub[žk]Y X]Y`U_hi Y``Y`Dc`]nY]`]W\Y?f]a]bU`ghUh]gh]_ fD? GŁ
XYg`6i bXYg_f]a]bU`Ua hg`j YfXYi h`]W\h"`=a `*J\f`&\$&(`[UV`Yg
]bg[YgUa h`) ž, (`A]``]cbYb`: À``Yž'k Ug`Y]bYb`FØW_[Ub[`i a `%ž+`i
]a `JYf[`Y]W\`ni a `Jcf'U\f`VYXYi hYh"`9]b`; fi bX`ZØf`X]YgYb
FØW_[Ub[`g]bX`X]Y`g]b_YbXYb`7UbbUV]g!8Y`]_hYž'X]Y`gY]h`XYf
HY]``Y[U`]g]Yfi b[`ni `VYcVUW\hYb`g]bX"`8YbbcW\`V`Y]Vh`X]Y`5b[gh
j cf?f]a]bU`]hÀhY]bY`ghÀbX][Y`6Y[`Y]hYfgW\Y]bi b[ž'XU'j cf`U``Ya
X]YYb][Yb`JYfVfYW\Yb`ni bY\a Ybž'X]Y`XUg`G]W\Yf\Y]hg[YZØ\``XYf
A YbgW\Yb`VYY]bhfÀW\h][Yb"`K Y`W\Y`Fc``Y`gd]Y`Yb`A YX]YbVYf]W\hY
k]Y`H8]Y`8cbUi `]gh`h]YZI`XUVY]ž'XUg`6Yk i gghgY]b`ZØf`?f]a]bU`]hÀh
ni `gW\ÀfZYb3

6YgcbXYfg'Ui ZZÀ``][']ghž'XUgg'; Yk U`hj YfVfYW\Ybž'k]Y'A cfX'i bX HchgW\`U[ž']a 'J Yf[`Y]W\ ni 'UbXYfYb'8Y`]_hYb'bi f'Y]bYb'gY\f
_`Y]bYb'5bhY]``Ub'XYf'; YgUa h_f]a]bU`]hÀh'Ui ga UW\Yb"'Gc
VYhfi [Yb'g]Y']a 'J\\f'&\$&('`YX][`]W\'\$ž%'i ž'k À\fYbX
GYI i U`XY`]_hY'VY]'Yhk U'&ž&'i '`U[Yb"'8]YgY'GhUh]gh]_Yb
j YfXYi h`]W\Ybž'XUgg'X]Y'6Yf]W\hY'ØVYf'gW\k Yfk]Y[YbXY
J YfVfYW\Yb'k]Y']b'l8]Y'8cbUi ']qh'h]YZ' ia Ò[`]W\Yfk Y]gY'_f]h]gW\Y

8]g_i gg]cbYb'Ubghc» Ybž'UVYf']b'K]f_`]WX_Y]h'X]Y'UVgc`i hY'5bnU\`XYf'gc`WXYb'JYfVfYWXYb'a]b]a U`Y'6U`UbWYb']bbYf\U`V'XYfVfY]hYb'?f]a]bU`]hÀh'k]XYfgd]Y[Y`b"; YfUXY']b'GhUXhghUUhYb'k]Y6Yf`]b'cXYf'<UaVif[']gh'X]Y'KU\fgWXY]b`]WX_Y]hž'CdZYf'Y]bYgJYfVfYWXYbg'ni 'kYfXYbž'XYi h`]WX\\O\Yf"

?f]a]gWX Ui d`AhnY]b DUggUi

Ni fØW_V`]W_YbX'Ui Z'XYb':]`a 'gY`Vghž'gd]Y`h'X]Y'?i`]ggY'DUggUi g
Y]bY'YbhgW\Y]XYbXY'Fc``Y''8]Y'fY]nj c``Yb'@UbXgW\UZhYb'i bX'X]Y
VYY]bXfi W_YbXYb'8Yb_a À`Yf'XYf'GhUXh'j Yf`Y]\Yb'XYf'; YgW\]W\hY
Y]bY'VYgcbXYfY'BchY''NUb_`g'<YfUi gZcfXYfi b[ž'g]W\'a]h'gY]bYf
J Yf[Ub[Yb\Y]h'Ui gY]bUbXYfni gYhnYbž'gd]Y[Y`h'XYb'?Ua dZ'Y]bYg
A UbbYg'k]XYfž'XYf'ZØf'X]Y'@JYVY'ni 'gY]bYf': Ua]`]Y'U``Yg'f]g_]YfYb
k ØfXY'''K À\fYbX'NUb_`']b'gY]bYf'NY``Y'g]hnhž'a i gg': fYXYf]_Y
[Y[Yb'X]Y'I\f'Yfa]hhY`b'i bX'ghÒ» h'Ui Z'Y]bY'k Y]hYfY'Gdi fž'X]Y'a]h
XYa 'hgW\YW\]gW\Yb'K Y`dYbgW\ai [[`Yf'\Jfcg`Uj'?U]gYf']b
J YfV]bXi b['ghY\hž'k Ug'XYb'GdUbbi b[gVc[Yb'k Y]hYf']bhYbg]j]Yfh''

8]Y '9bhk]W_`i b['fi bX'i a 'NUb_`g' < UZh'i bX': fYXYf]_Yg
9fa]hhìi b[Yb 'nY][hž'XUggž'cVk c\``X]Y '?f]a]bU`]hÀhgfUhY ']bg[YgUa h
ni fØW_[Y\hž'Yg'bUW\ 'k]Y'j cf'j]Y`Y'; YgW\]W\hYb 'ni 'YfnÀ\`Yb'[]Vh''
8]Y 'J Yfghf]W_i b[Yb 'XYg'DfchU[cb]ghYb'i bX'gY]b'Nk Ub[ž'g]W\
gck c\``gY]bYb']bbYfYb'8 Àa cbYb'U`g'Ui W\`XYb'Ài » YfYb
6YXfc\i b[Yb 'ni 'ghY``Ybž'a UW\Yb'l 8]Y'8cbUi ']gh'h]YZ\' 'ni 'Y]bYa
ZYggY`bXYb':]`a ž'XYf'b]W\h'bi f'GdUbbi b['V]YhYhž'gcbXYfb'Ui W\
ni f'FYZYI]cb'ØVYf'X]Y'FYU`]hÀh'j cb'JYfVfYW\Yb'UbfY[h''

 $: \emptyset f']bhYfYgg]YfhY'NigWXUiYf'ghY\Yb'X]Y'8YhU]`g'XYg':]`ag'ibX'X]Y'9bhghY\ib[g[YgWX]WXhY']b'XYf''gUh!AYX]Uh\Y_'nif'JYfZ\emptyset[ib["GWXUiYb'G]Y'Y]b'ibX'Yf`YVYb'G]Y'Y]bYb'\Y]»Yb'?f]a]ž'XYf'nY][hžk]Y'gWXaU``XYf';fUh'nk]gWXYb'FYWXh'ibX'IbfYWXh'qY]b'_Ubb"$

8 Y hU]`g	
Cfh	DUggUiž8YihgWX`UbX
EiY``Yb	• k k k "bYk g"XY

8YhU]`g	
	• k k k "' gUh"XY
	XY"ghUh]ghU"Wca

6 Ygi WX Yb 'G]Y 'i bg 'Ui Z. 'b!U["X Y