

## 8]Y 5`Ua YXU!: HL!HcXYggd]fU`Y p : ]bUbnnY]hYb

?fmdhc`\Uhij ]Y`Y`DfcV`Ya Y"`5VYf`X]Y`HfUbgdUfYbnij cb`Cb!
7\U]b!HfUbgU\_h]cbYb`V]YhYh`[Y`Y[Ybh`]W\Y]b][Y`n]Ya`]W\
ZUgn]b]YfYbXY`9]bV`]W\_Y`]b`Gd]Y`YfY]Yb`k]Y`XYb`I bhYf[Ub[
j cb`GUa`6Ub\_a Ub!: f]YXg`a U[]gW\Ya`6c\bYb]a dYf]i a''
8 Ug`6`cW\_W\U]b!5bU`mh]\_i bhYfbY\a Yb`BUbgYb`\Uhig]W\`a]h
XYb`]bnYghi ÒgYb`JYfV]bXi b[Yb`nk]gW\Yb`XYf`< UbXY`gZ]fa U
5`Ua YXU'j cb`G6: i bX`XYf`?fmdhc!6ÒfgY: HL`i bX`]\fYf
UbgW\`]Y»YbXYb`[Y[YbgY]h][Yb`HcXYggd]fU`Y`VYgW\AZh][h''
8 Yf`6Yf]W\h`]gh`Yhnh`YfgW\]YbYb`i bX`V]YhYhY]bY
]bhYfYggUbhY`@Y\_hØfY''CVk c\``G6: cZh`XUfUi Z'VYghY\hž`XUgg
g]Y`i bUV\Ab[][`VYhf]YVYb`k i fXYbž`nY][h`BUbgYbž`k Ug`U``Y
]a a Yf`j Yfa i hYhYb`i bX`Yhnh`cZZYbg]W\h`]W\`g]bX''`G]Y`k UfYb
j cb`5bZUb[`Ub`Yb[`a]hY]bUbXYf`j YfVi bXYb`i bX`V`]YVYb`Yg
k À\fYbX`]\fYg`\_i fnYb`@YVYbg'' BcW\`VYj cf: HL`]a`AU]
/ Ua d\Y``]d/

? fmd hc `\ Uh' j ]Y `Y' Dfc V `Ya Y" '5 VYf' X]Y 'HfUbgd UfYbn'j cb 'C b!  $7 \setminus U$ ]b! HfUbgU\_h]cbYb'V]YhYh'[ Y`Y[ Ybh`]W\ 'Y]b][ Y'n]Ya `]W\ 'ZUgn]b]YfYbXY 9]bV`]\\ Y']b'Gd]Y`YfY]Yb'k ]Y'XYb'I bhYf[ Ub['j cb'GUa'6Ub\_a Ub! : f]YXg'a U[]g\\ Ya'6c\bYb]a dYf]i a "'

 $8 \ Ug'6`cW_WVU]b!5bU`mh]_i \ bhYfbY\ a \ Yb'BUbgYb'\ Uh'g]WV a \ ]h'XYb \ ]bnYghi \ OgYb'JYfV]bXi b[Yb'nk]gWVYb'XYf'< UbXY`gZ]fa U'5`Ua YXU j cb'G6: i bX'XYf'?fmdhc!6\OfgY': HL i bX']\fYf'UbgWV`]Y\ YbXYb \ [Y[YbgY]h][Yb'HcXYggd]fU`Y'VYgWV\AZh][h''8Yf'6Yf]WV\h']gh'Yhnh \ YfgWV\]YbYb'i bX'V]YhYh'Y]bY']bhYfYggUbhY'@Y_hØfY'''$ 

CVk c\``G6: 'cZh'XUfUi Z'VYghY\hž'XUgg'g]Y'i bUV\Àb[]['VYhf]YVYbk i fXYbž'nY][h'BUbgYbž'k Ug'U``Y']a a Yf'j Yfa i hYhYb'i bX'YhnhcZZYbg]W\h`]W\'g]bX"'G]Y'k UfYb'j cb'5bZUb['Ub'Yb['a ]hY]bUbXYf

j YfVi bXYb i bX 'V`]YVYb 'Yg'k À\fYbX']\fYg'\_i fnYb '@YVYbg"'BcW\VYj cf': HL ']a 'A U]'&\$%- 'cZZ]n]Y``'Y]b[ YZØ\fh'k i fXYž'\UhhY 5`Ua YXUg'K U``Yh'XUa ]h'VY[ cbbYbž']b'[ fc» Ya 'I a ZUb[ 'XUa ]h'ni ]bhYfU[ ]YfYb"'

## | BUbgYb

8]Y'JYfV]bXi b[Yb'j Yfh]YZhYb'g]W\bif f'bcW\i bX'k i fXYb'bcW\dfcV`Ya Uh]gW\Yfž'U`g': HL'gY]bYb'l h]`]hm'Hc\_Yb': HH'Y]bZØ\fhY'i bX 5`Ua YXU'Y]bY'i ba ]hhY`VUf'k ]W\h][Y'; Y[YbdUfhY]'k Uf"

B UbgYb 'gW. Àhnhž X Ugg 'j cb 'XYb'') \$ 'A ]``]cbYb': HH']bg[YgUa h'&, \$ A ]``]cbYb'j cb': HL'\_cbhfc``]Yfh'k i fXYb'i bX'Yhk U'&+'A ]``]cbYb']b 5`Ua YXUg'6f]YZhUgW.Y'`UbXYhYb'f]bhYfYggUbhYfk Y]gY'gU[h B UbgYbž'XUgg'%\$ž+'A]``]cbYb': HH'b]W.h'VYfØW\_g]W.h][h'i bX'%\$ A]``]cbYb': HH'i bVYfØ\fhg]bXŁ"'5XfYggY'\$I (UUŁ"'

 $8 \ Ug'VYXYi \ hYhz'XUgg'bi f'gY\ f'k Yb][Y'Hc_Yb'j cb': HL'hUhgÀW\`]W \\ ]b'ZfY]Yf'K ]`XVU\b'[Y\ UbXY`h'k i fXYbz'UVYf'VY]XY'I bhYfbY\a Yb _\ObbhYb'XYb'h\YcfYh]gW\Yb'K Yfh']\fYf': HH!JYfghY\\_Y'U\`g \\ G]W\Yf\Y]h'j Yfk YbXYbz'i a 'Y]bY'<YVY`k ]f_i b['ni 'Yfn]Y`Yb'''$ 

5`Ua YXU'i bX': HL'VYgU» Yb'j cb'5bZUb['Ub'X]Y ØVYfk]Y[YbXY'A Y\f\Y]h'XYg'[YgUa hYb': HH!5b[YVchgž k Ug'VYXYi hYh.

"8 UgʻhUhgÀW\`]W\Yʻl a `Ui ZUb[YVchʻfi bX`X]Y @]ei ]X]hÀhgh]YZYŁʻ]ghʻ[Yf]b[ˈ]a 'JYf[`Y]W\`ni a ; YqUa hUb[YVchʻfK"'\"'[Yf]b[Yf`: `cUhŁ

DfY]gY'\_ObbYb''Y]W\h'VYY]bZi ggh'k YfXYbž'i a 'a ]h fY`Uh]j '\_`Y]bYb'6YhfÀ[Yb']a 'JYf[`Y]W\ni 'XYf'XUfUi g fYgi `h]YfYbXYb'9f\O\i b['fbXYf'JYff]b[Yfi b[E'XYf 6Yk Yfhi b['bUW\cVYb'fbXYf'bUW\i bhYbEni 'ghY][Yb "8 U'gck c\``5`Ua YXU'U`g'Ui W\`: HL 'X]Y'A Y\f\Y]h'XYg': HH! 5b[YVchg'\]Y`hYbž'\_ÒbbhY'XUg'UbXYfY'I bhYfbY\a Ybž k Ybb'Yg'[Ynk i b[Yb']ghž'gY]bY': HH!6YghÀbXY'ni j Yf\_Ui ZYbž'Y]bYb'Ybcfa Yb'GW\UXYb'ZØf'gY]bY'6]`Ubn Yf`Y]XYb

8 Yf'B UbgYb!6Yf]W\h'i bhYfgi W\h'XUbbž'k]Y'5`Ua YXUž': HL'i bX']\fY ?cbhfc``Y'ØVYf': HH'XUni 'VY][YhfU[Yb'\UVYbž'g]W\']a '?fmdhc! Gca a Yf'&\$&%'[Y[YbgY]h]['j cfUbni hfY]VYb.

. .

9]bY'a Ugg]j '[Y\YVY`hY``Ub[Y'?fmdhck À\fi b['Ui Z'XYf'; fi bX`U[Y j cb'nk]Y`]W\h][Yb'G]W\Yf\Y]hYb'ni 'gY]bž'k Uf'c $\mathbb{Z}$ Ybg]W\h`]W\'\_Y]bY' ;  $fc \gg Ufh$ ][' $\Rightarrow$ XYY']b'XYb'?fmdhc!K]bhYf'&\$&\"

BUbgYb'[Y\h'XUj cb'Ui gž'XUgg'5`Ua YXU'VYfY]hg']a 'A U]'Yfgha U`g Yfbgh\UZhY'DfcV`Ya Y'\UhhYž'U`g'XYf'Ghfi XY`ni a 'Ni gUa a YbVfi W\XYf'?fmdhc!Ei Ug]!6Ub\_'7Y`g]i gž'XYg'?fmdhc!<YX[YZcbXg'' 57'i bXXYg'GhUV`YWc]b!² \_cgmghYa g'j cb'HYffU#@ bU'ZØ\fhY'i bX'k]YXYfi a Xi fW\'XYb'Ni gUa a YbVfi W\'Ui g[Y`Ògh'k i fXY'''

 $Cb!7\U]b!8\UhYb"VYk Y]gYb"b]Wh"gWk" \@gg][\ \check{z}'XUgg":\ HL"5`Ua YXU"i\ a X]YgY"NY]h"\Yfi a "Yfgha U`g"Y]b"8\Uf`Y\Yb"]b"< O\Y"j cb"("A fX"!$\;i\)] <math display="inline">\check{z}''$  a ]h"XYb"Gd]hnYbY]b`U[Yfi b[Ybž'U`g" 57 A ]hhY"\$\\$b]"]a d`cX]YfhY"

9g'k i fXYb'Ui W\'a Y\fYfY'UbXYfY' a mghYf]ÒgY ', VYfk Y]gi b[Yb j cb': HL 'ni '5`Ua YXU'[YZ bXYbž'k]Y'X]YgY', VYfk Y]gi b['j cb %)) "\$\$\$'9h\YfYi a 'fl &' 'A]``]cbYb'I G!8c``UfŁ'Ua '%&"'A U]ž'X]Y 5`Ua YXU'XUbb'Ub'; YbYg]gž'Y]bY'?fmdhc!@Y]\d`UhhZcfa ž'ØVYfhfi ["

. .

9bXY'C\_hcVYf'kifXY'Y]bY'ib[YkÒ\b`]W\Y'@]ghY'\_cbh]bi]Yf`]W\YfGhUV`YWc]b!HfUbgZYfg'jcb': HL'≢bhYfbUh]cbU`'ibX': HL'IG'ni

5`Ua YXUg'7]fWYž'6]bUbWY'i bX': HL'K U``Yh'YbhXYW\_h "

Ni gUa a Yb'VY`]YZYb'g]W\'X]Y'HfUbgZYfg'U``Y]b'j ca '' %"'C\_hcVYf'V]g ni a '%"'Bcj Ya VYf'Ui Z'GhUV`YWc]bg']a '; YgUa hk Yfh'j cb'',, A ]``]cbYb'8c``Uf"'B]W\h'[fc»Ufh]["

. .

BUbgYb`\cV`Y]b][Y`ib[YkÒ\b`]W\ [fc>Y`5V\YVib[Ybjcb: HL]b`XYb`&(`GhibXYb`\Yfjcfž'VYjcf'Yg`nia '9]bZf]YfYb`[Ynkib[YbkifXYž']bgVYgcbXYfY`Y]bY`AUaaih!BYhhcUV\YVib['jcb'&()A]``]cbYb`8c``Uf`XifW\ 9H<!A]``]cbÀf "'5VYf`X]Y`k]W\h][ghYGW\`iggZc`[Yfib['XYg`IbhYfbY\aYbg`kUfž'XUgg`XYfNigUaaYbVfiW\'jcb'5`UaYXU#.HL`kU\fgW\Y]b`]W\ibjYfaY]X`]W\`kUf"

5`g`k]f`X]Y`HY]`Y`i bgYfYf`Cb!7\U]b!I bhYfgi W\i b[
ni gUa a YbgYhnhYbžk Uf`Yg`cZZYbg]W\h`]W\žXUgg`XYf
Ni gUa a YbVfi W\ij cb`@ bU#HYffU`Y]bYb`h]YZYb`: Y\`Yf
nk]gW\Yb`5`Ua YXUgʻi bX`: HLgʻj Yfk cffYbYf`6Yn]Y\i b[
cZZYbVUfhY"'9g`[UV`Yf\YV`]W\Y`: HH!5VZØggY`j cb`5`Ua YXU
ni :: HL`fi bX`i a `X]Y`HYffU!@ bU# 57!G]hi Uh]cb"'6Ug]YfYbX
Ui Z`XYb`8UhYb`\_ObbhYb`X]Y`[YgUa hYb`: HH!5VZØggY`]b
<O\Y`j cb`(`AfX"'I G8`j cb`5`Ua YXU`Ub`: HL`]a 'i b]`i bX
i\`]`a O[`]W\Yfk Y]gY`X]Y`6YfY]hghY``i b[`j cb`G]W\Yf\Y]hYb
[Yk YgYb`gY]bž'X]Y`ni f`G]W\Yfi b[`XYf`?fYX]hY`f]a `K Yfh
j cb`a]bXYghYbg`(`AfX"'I G8Ł']a `AU]`#ib]`j Yfk YbXYh
k i fXYbžX]Y`j cb`aY\fYfYb`Ui Z[YXYW\_h`k i fXYb`AYbgW\Yb]b`XYf`BÀ\Y`j cb`6Ub\_aUb!: f]YX`]b`U`FYi hYfg`\#hYfj]Yk`"

K ]f`\UVYb`]b`X]YgYa `NY]hfUi a `Ui W\`Yhk Ug`i b[Yk  $O\b$ `]W\ [fc»Y`\_cbh]bi ]Yf`]W\Y`5VZ\ØggY`j cb`GhUV`YWc]b!Hc\_Yb`j cb : HL`]b`5`Ua YXUg`K U``Yhg`VYcVUW\hYh"`5b[Yg]W\hg`XYf

\_Ug\_UX]YfYbXYb`K ]f\_i b[ 'XYg`Ni gUa a YbVfi Wkg'j cb`@ bUk i fXYb'j ]Y`Y: ]fa Yb`k ]Y'' 57``]ei ]X]Yfhž'k Ugʻni 'Y]bYf 5bghYW\_i b[ 'XYg'?fmdhc!?fYX]ha Uf\_hYgʻZØ\fhY''K À\fYbX i bgYfY`Cb!7\U]b!I bhYfgi Wki b[ 'b]Wkh'X]fY\_h`VYghÀh][ hYž XUggʻ6Ybi hnYf[ Y`XYf'j cb`: HL`ni '5`Ua YXU'i a [ Y`Y]hYh k i fXYbž'i a 'g]Y'j cf`XYf'@]ei ]XUh]cb`ni ' fYhhYb ž'XYi hYb X]Y'i b[ Yk Ò\b`]Wk'[ fc» Yb': HH!Ni ZØggY'j cb': HL'bUWk @ bU# 57`Ui ZY]bYb'd`Ui g]V`Yb': U```\]b'''

Jcb'X]YgYa 'NY]hdi b\_h'Ub'k i fXY'X]Y'j YfZcWkhYbY
6Yn]Y\i b[ 'nk ]gWXYb'5`Ua YXU'i bX': HL']a a Yf
VYi bfi \][ YbXYfž'XU'Ui Wk'?i bXYb[ Y`XYf']b'X]Y'; 'Y]Wki b[
Y]bZcggYb"'5`Ua YXU'VYZUbX'g]Wk']b'Y]bYa 'GhUX]i a ž']b
XYa 'XUg', VYf`YVYb'gY]bY'[ Yk À\`hY'Df]cf]hÀh'k Ufž'i bX
k Ybb'Y]bY'9]b\Y]h'ni gUa a YbVf]Wkhž'\_ObbhYb'g]Wk'k Y]hYfY
DfcV`Ya Y'ZØf': HL'ni gUa a YbVfUi Yb"'5b[ Yg]Wkhg'XYf
J YfZYWkhi b[ 'X]YgYf'9]b\Y]hYb'i bX'XYf'ØVYfa À»][ Yb
<YVY`i b[ 'j cb'G]WkYf\Y]hYb'XYi hYh'i bgYfY'dcgha cfhU'Y
C b!7\U]b!5bU`mgY'XUfUi Z'\]bž'XUgg'XYf'`YhnhYbX`]WkY
Ni gUa a YbVfi Wk'j cb'5`Ua YXU'fi bX'X]Y'XUfUi g
fYgi `h]YfYbXYb'5i gk ]f\_i b[ Yb'Ui Z': HL'j ]Y``Y]Wkh
i bj Yfa Y]X`]Wk'k Uf"

EiY``Y.: ]bUbW]U``H]a Yg

8 YhU]`g

6 Ygi WX Yb 'G]Y 'i bg 'Ui Z. '\_fmd hc!b Yk g"Uh