

i fUghi X]YfYbXY]b HØV]b[Yb. GhfYb[Y 5bg]WX hYb ni f i gh]n i bX GhfUZY

if the state of the state

8]Y'AY]bi b[Yb'XYf'\$
fUghi X]YfYbXYb'Ub'XYf'I b]j Yfg]hÀh'HØV]b[YbnY][Ybž'XUgg'Y]b'[fi bX'Y[YbXYg'A]gghfUi Yb'[Y[YbØVYf'XYf'\$
gh]n]b'XYf'; YgY``gW\UZh'j cf\UbXYb']gh''8]YgY'6YcVUW\hi b['n]Y\h'b]W\h
bi f'Ui Z'X]Y']bX]j]Xi Y``Yb'9]bghY``i b[Yb'XYf'Ub[Y\YbXYb'\$
f]ghYb
FØW_gW\`ØggYž'gcbXYfb'`Yb_h'Ui W\'XYb': c_i g'Ui Z'_f]h]gW\Y
5gdY_hY'XYf'GhfUZ'\gh]n'i bX'XYfYb'FYZcfa VYXUfZ'

8Ug'6] X XYf' i gh]n

Dfc ZYggcf *Df['?]bn][ž'XYf'X]Y 'I a ZfU[Yb 'Xi fW ZØ\fhž'\Uh
ZYgh[YghY ``hž'XUgg 'X]Y 'Ghi X]YfYbXYb 'c Zh'Y]bY 'gY\f 'ghfYb[Y '< U`hi b[
[Y[YbØVYf'XYf' i gh]n \ UVYb " '8]YgY 'mb[fY '; YbYfUh]cb 'g]Y\h'X]Y
; Yf]W hY 'U`g 'b]W h'bi f'i bni fY]W YbXž'gcbXYfb 'Ui W 'U`g
i b[YfYW hZYfh][h'bUW g]W h]["'6YgcbXYfg 'X]Y '5i ggU[Yž'XUgg
dchYbn]Y``Y'J Yfi fhY]`i b[Yb'j cb 'XYf'Z]bUbn]Y``Yb'A O[`]W _Y]h
UV\Ab[Ybž'g]W 'Y]bYb'hYi fYb'5bk U`h'ni '`Y]ghYbž'k i fXY'j cb'j]Y`Yb
U`q'ni hfYZZYbX'VYk YfhYh"

GhfUZa ØbX][_Y]h i bX GhfUZa U»

9]b'k Y]hYfYg'ni _i bZhgk Y]gYbXYg'H\Ya Už'XUg'j cb'XYb
Ub[Y\YbXYb'\$\frac{1}{3} f]ghYb'Ub[YgdfcW\Yb'k i fXYž'VYhf]ZZh'X]Y
<YfUVgYhni b['XYf'GhfUZa ØbX][_Y]hg[fYbnY'j cb'%('Ui Z'%&'\$J\fY''
8]YgY': cfXYfi b[ž'X]Y'ZUgh'j cb'XYf'A Y\f\Y]h'i bhYfghØhnh'k]fXž
k]fZh': fU[Yb'ni f'[YgY``gW\UZh`]W\Yb'JYfUbhk cfhi b['Ui Z'i bX

]bk]YZYfb'?]bXYf'i bX' \Rightarrow [YbX`]W\Y'ZØf']\f'<UbXY`b'ni f FYW\YbgW\UZh'[Ync[Yb'k YfXYb'gc``hYb"

8 Yf'9]bZ'i gg'j cb'; YgWX `YWX h'Ui Z 9]bghY``i b[Yb

9]b']bhYfYggUbhYf'5gdY_h']gh'X]Y'[YgWX `YWX h`]WXY'8]ZZYfYbn]Yfi b[]b'XYb'5bhk cfhYb"'K À\fYbX'k Y]V`]WXY'6YZfU[hY'Y]bY'ghfYb[YfY < U`hi b['[Y[YbØVYf'GhfUZhÀhYfb'nY][Ybž'VYk YfhYb'a Àbb`]WXY Ghi X]YfYbXY'X]Y'Bchk YbX][_Y]h'j cb'\ÀfhYfYb'GhfUZYb'i bX'X]Y_cbghfi _h]j Y'Fc``Y'XYf'FYgcn]U`]g]Yfi b['cZh'k Yb][Yf'XfUgh]gWX"8]Yg'_ObbhY'Ui Z'[fi bX`Y[YbXY'I bhYfgWX]YXY']b'XYfK U\fbY\a i b['j cb'?f]a]bU`]hÀh'i bX'XYfYb'5i gk]f_i b['Ui Z'X]Y ; YgY``gWXUZh'\]bk Y]gYb"

: c_i g`Ui Z'F Ygcn]U`]g]Yfi b[

 $C\ Vk\ c\ ``j\]Y`Y`XYf`6YZfU[\ hYb`Y]bY`ghfYb[\ Y`Dcg]h]cb`]b`6Yni\ [``Ui\ Z\ X]Y` \not \Rightarrow\ gh]n`j\ YfhfYhYb z`nY][\ Yb`X]Y`I a \ ZfU[\ YYf[\ YVb]ggYz`XUgg`g]Y`XYf\ FYgcn]U`]g]Yfi b[``Y]bY`k]Wk h][\ Y`: i b_h]cb`ni gWk fY]VYb''`6YgcbXYfg g][\ b]Z]_Ubh`]gh`X]Y`ghY][\ YbXY`Ni gh]a a i b[``ni f`=XYYz`XUgg`X]Y 6YggYfi b[``XYg`HAhYfg`XYf`< Ui dhnk YW_Y]bYf`GhfUZY`gY]b`gc``hYz k Ug`Y]b`< cZZbi b[ggWk]a a Yf`Ui Z`Y]bYb`I a XYb_i b[gdfcnYgg`]b XYf`ni _ØbZh][Yb`; YgYhn[YVi b[`XUfghY``h"$

: Y\`Y]bgWX Àhni b['XYf'?f]a]bU`]hÀhgfUhYb

9]b'k Y]hYfYg'VYi bfi \][YbXYg'9f[YVb]g'XYf'I a ZfU[Y'nY][hž'XUgg X]Y'Ghi X]YfYbXYb'X]Y'?f]a]bU']hÀhgfUhYb'Yf_YbbVUf'ZY\'Yf\UZh Y]bgW\AhnYb"'G]Y'[`Ui VYbž'XUgg'JYfVfYW\Yb'k]Y'6Yhfi ['i bX 8]YVghU\`'ni [Ybca a Yb'\UVYbž'k A\fYbX'X]Y'fYU'Yb'NU\'Yb Y][Ybh`]W\'fØW_`Ai Z]['g]bX"'8]YgYg'A]ggj Yf\A`hb]g'_ÒbbhY'Xi fW\Y]bY']bhYbg]j Y'a YX]U'Y'6Yf]W\hYfghUhhi b['ØVYf'JYfVfYW\Yb VYX]b[h'gY]bž'X]Y'X]Y'K U\fbY\a i b['XYf'U``[Ya Y]bYb'G]W\Yf\Y]h j YfnYffh"

 $Dc^{h}gWXYf^{D}fchYgh^{i}bX^{7}j^{Y}f^{I}b[Y\cfgUa$

± XYb 'Øb[ghYb'dc`]h]gWXYb'8]g_i gg]cbYb'k]fX'X]Y'Fc``Y'XYg
n]j]`Yb'I b[Y\cfgUa g']a a Yf'k]WXh][Yf"'5i Z'X]Y': fU[Y'bUWX'XYf
@Y[]h]a]hÀh'j cb'n]j]`Ya'I b[Y\cfgUa ']a 'FU\a Yb'j cb
?`]a UdfchYghYb'gh]a a hYb'bi f'&* 'DfcnYbh'XYf'6YZfU[hYb'ni "'8]Yg
_ÒbbhY'XUfUi Z'\]bk Y]gYbž'XUgg'hfchn'Y]bYf'ni bY\a YbXYb
GYbg]V]`]g]Yfi b['ZØf'?`]a UZfU[Yb'Y]b'[fi bX`Y[YbXYg'I bVY\U[Yb
[Y[YbØVYf'YI hfYa Yb'A U» bU\a Yb'\YffgWXh"

8]Y'5i hcf]b'GhYZUb]Y'K YVYf'ghi X]Yfh'FYW\hgk]ggYbgW\UZhYb'Ub XYf'9VYf\UfX!?Uf\g!I b]j Yfg]h\h'H \emptyset V]b[Yb"

B 5 :

8 Y hU1`a

6 Y gi W Y b 'G] Y 'i b g 'U i Z 'b ! U ["X Y