

# G!6U\b!GhÒfi b[Yb']b'<Ubbcj Yf. K Y]WXYb!'i bX'GWX`Ua a `cWXdfcV`Ya Y \U`hYb'Ub

K Y]WXYbghÒfi b[ ']a 'G!6U\b!JYf\_Y\f'<Ubbcj Yf'VY\cVYbž UVYf'G) 'k Y]hYf\]b 'VYY]bhfÀWXh][h' '⇒b Zcfa Uh]cbYb'ni JYfgdÀhi b[Yb'i bX'l a `Y]hi b[Yb"

8]Y'JYf\_Y\fgg]hi Uh]cb']a 'F Ui a '< Ubbcj Yf']gh'XYfnY]h'j cb
Yf\YV']W\Yb'GhÒfi b[Yb'VYhfcZZYbž'X]Y'gck c\'`DYbX`Yf'U`g'Ui W\
FY]gYbXY'j cf'< YfUi gZcfXYfi b[Yb'ghY``Yb"'9]b'hYW\b]gW\Yg
DfcV`Ya '\Uh'Y]bY'g][b]Z]\_UbhY'I bhYfVfYW\i b[']a 'G!6U\b!BYhn
j Yfi fgUW\hž']bgVYgcbXYfY'Ui Z'XYb'@]b]Yb'G%'i bX'G&"'9]bY'XYZY\_hY
K Y]W\Y']b'6Ufg]b[\Ui gYb'k Uf'XYf'5i g`ÒgYf'ZØf'X]Y'DfcV`Ya Yž
k cXi fW\XX]Y'G%'nk ]gW\Yb'<UghY'i bX'<Ubbcj Yf'Ui ggYhnYb
a i gghY"'8]Yg'[UV'XYf'G!6U\b!6YhfY]VYf'HfUbgXYj 'Ua
A]hhk cW\Aa]hhU['VY\_Ubbh"

8]Y'K Y]W\YbghÒfi b['ZØ\fhY'XUni ž'XUgg'Ui W\'X]Y'G&'b]W\h'k]Y
[Yk c\bh'j Yf\_Y\fYb'\_cbbhY"'9g'k Uf'Y]b'\_`UfYf': U``'j cb
: U\fd`UbdfcV`Ya Ybž'X]Y'j ]Y`Y': U\f[ ÀghY'VYhfcZZYb'\UVYb"'5V
Yhk U'%+'I \f'gc``hYb'X]Y'VYhfcZZYbYb'@|b]Yb'k ]YXYf'bUW\
fY[i `ÀfYa ': U\fd`Ub'ZU\fYb' 'YXcW\']gh'a ]h'`Y]W\hYb
J YfgdÀhi b[Yb'ni 'fYW\bYb"'CVk c\``X]Y'G]hi Uh]cb'g]W\'`Ub[gUa 'ni
YbhgdUbbYb'gW\Y]bhž'V`Y]Vh'X]Y'@|b]Y'G) 'k Y]hYf\]b'Y]b[YgW\fÀb\_h'"

### : cfhXUi YfbXY DfcV `Ya Y 'Ui Z'XYf'G)

5i Z'XYf'G) 'hfYhYb'gY]h'a Y\fYfYb'HU[Yb'DfcV`Ya Y'Ui Zz'X]Y'Xi fWX Y]b'GWX`Ua a `cWX']b'Gdf]b[Y'j Yfi fgUWXh'k YfXYb"'8]Yg'ZØ\fh'XUni ž XUgg'X]Y'G) 'bi f'nk ]gWXYb'<Ua Y`b'i bX'XYa '<Ubbcj Yf <Ui dhVU\b\cZ'j Yf\_Y\fh"'FY]gYbXYž'X]Y'Y]bY'JYfV]bXi b['ni a : `i [\UZYb`VYbÒh][Ybžg]bX`Ub[Yk]YgYbžX]Y`6i ggY`UV`<UbbcjYf <Ui dhVU\b\cZni 'bi hnYb"'8]YgY`6i ggY'j Yf\_Y\fYb`Ua 'A]hhk cWk ghØbX`]Wk`V]g`ni bÀWkgh\*&\$`I\fž`U``YfX]b[g`c\bY`Nk]gWkYb\U`hYž k Ug`X]Y`5bZU\fh`ni a : `i [\UZYb`ni gÀhn`]WkY`NY]h`\_cghYb`\_Ubb"

8]Y'G!6U\b!6YhfY]VYf'\UVYb'nk Uf'Ub[Y\_ØbX][hžXUgg'g]Y'Ub@Ògi b[Yb'UfVY]hYbž'YXcW\'V`Y]Vh'i b\_`Ufž'k]Y'`Ub[Y'X]Y
9]bgW\f\ab\_i b[Yb'kY]hYf\]b'VYghY\Yb'k YfXYb''Gc`W\Y'Gh\ofi b[Ybg]bX'b]W\h'bi f'Z\ofi 6Yfi ZgdYbX`Yfž'gcbXYfb'Ui W\'Z\ofi Hci f]ghYb'i bXFY]gYbXYž'X]Y'ni a ': 'i [\UZYb'k c``Ybž'\af[Yf`]W\''8]Y'I b[Yk]gg\Y]h\OVYf'X]Y'8Ui Yf'XYf'9]bgW\f\ab\_i b[Yb'k]fZh': fU[Yb'\OVYf'X]Y9\Z]n]Ybn'XYf'\deltaghUbX\U`hi b[ga U\sambu\a Yb'Ui Z\overline{Z}'X]Y'bchk YbX][g]bX\overline{Z}'i a 'X]Y'\deltaZfUghfi hi f']b'Y]bYa 'j YfhfUi Ybgk \OffX][Yb'Ni ghUbXni \U`hyb''

 $\label{eq:nights} NigÅhn`]W\ ini fii b[Yk]ggYb'JYf_Y\fg`U[Y'[UV'Yg`Ua'8]YbghU[Y]bYb'JcfZU``ž'VY]'XYa'Y]b'DUggUbh'g]W\ igY`Vgh']b'; YZU\f'VfUW\hYžia'Y]bYf'UbXYfYb'DYfgcb'ni'\Y'ZYb'''9]bY'G!6U\b'_cbbhY']b 'YhnhYf'A]bi hY'UVVfYa gYbž'k Ug'X]Y'Bchk YbX][_Y]h'j cb G]W\ Yf\Y]hgdfchc_c``Yb'i bX'X]Y'JYfUbhk cfhi b['XYf'DUggU[]YfYi bhYfghfY]W\ h'''Gc`W\ Y'JcfZ\A``Y'_\ObbYb'b]W\ h'bi f'[YZ\A\f`]W\ 'gY]bž gcbXYfb'nY][Yb'Ui W\ ž'k]Y'k]W\ h]['g]W\ YfYg'JYf\U`hYb']b'i bX'i a 6U\b\OZY']gh''$ 

### $5i gk f_i b [Yb Ui ZXYb G!6U b!6Yhf]YV$

8]YgY`U\_hi Y``Y`G]hi Uh]cb`j YfXYi h`]W\h`X]Y`<YfUi gZcfXYfi b[Ybža]h XYbYb`XYf`G!6U\b!JYf\_Y\f`]b`XYf`FY[]cb`<Ubbcj Yf`\_cbZfcbh]Yfh ]gh"`HYW\b]gW\Y`8YZY\_hY`i bX`YI hfYa Y`K YhhYfVYX]b[i b[Yb`hfU[Yb\Ai Z][`ni `I bUbbY\a`]W\\_Y]hYb`VY]"`DYbX`Yfž`X]Y`hA[`]W\`Ui Z`X]Y`G! 6U\b`Ub[Yk]YgYb`g]bXž`a ØggYb`g]W\`i bhYf`X]YgYb`6YX]b[i b[Yb UbdUggYb`i bX`]\fY`FY]gYd`ÀbY`YbhgdfYW\YbX`UbdUggYb"

8]Y'JcfZÀ``Y'k YW\_Yb'Ui W\`XUg'6Yk i gghgY]b'ZØf'X]Y'Bchk YbX][\_Y]h bUW\\U`h][Yf'@Ògi b[Yb'ni f'JYfVYggYfi b['XYf HfUbgdcfh]bZfUghfi \_hi f"'-bj Ygh]h]cbYb']b'X]Y'A cXYfb]g]Yfi b['XYf GW\]YbYb'i bX']b'X]Y'K Ufhi b['XYf'hYW\b]gW\Yb'5b`U[Yb'g]bX YbhgW\Y]XYbXži a 'ni \_ØbZh][Y'DfcV`Ya Y'ni 'j Yfa Y]XYb'i bX'X]Y

8]Y'G!6U\b!@]b]Yb'G%ž'G&'i bX'G) 'gd]Y`Yb'Y]bY'k YgYbh`]W\Y'Fc``Y]a 'bU\Yb'JYf\_Y\fggmghYa ž'k cVY]'JYfnÒ[Yfi b[Yb'i bX'5i gZÀ``Yb]W\h'bi f'X]Y': U\f[AghYž'gcbXYfb'Ui W\X]Y'[YgUa hYJYf\_Y\fg]bZfUghfi \_hi f'ghUf\_'VY`UghYb"'8]Yg'YfZcfXYfh'gW\bY``Yg<UbXY`b'gY]hYbg'XYf'6YhfY]VYf'gck]Y'X]Y'I bhYfghØhni b['XYfYbhgdfYW\YbXYb'dc`]h]gW\Yb'GhY``Yb"

## 5i gV`]W\_Ui Za Ò[`]WXYJYfVYggYfi b[Yb

8]Y'GhÒfi b['XYf'G!6U\b!@]b]Yb']a '; fc» fUi a '< Ubbcj Yf']gh'b]W\h
XUg'YfghY'A U'ž'XUgg'hYW\b]gW\Y'DfcV'Ya Y'XYb'BU\j Yf\_Y\f
VYY]bhfÀW\h][Yb''8]Y'\DZfUghfi \_hi f'XYf'6U\b'ghY\h'k]YXYf\c`h']a
: c\_i gž']bgVYgcbXYfY']b'6Yni ['Ui Z'X]Y'Bchk YbX][\_Y]h
i a ZUb[fY]W\Yf'\DjYgh]h]cbYb'ni f'AcXYfb]g]Yfi b['i bX
9fhØW\h][i b['XYf'GW\]YbYb]bZfUghfi \_hi f''8]Y'8Yi hgW\Y'6U\b'i bX
]\fY'DUfhbYfi bhYfbY\aYb'\UVYb']b'XYb'`YhnhYb'\J\fYb']a a Yf
k]YXYf': ]bUbna ]hhY`'VYUbhfU[hži a 'X]Y
\DghUbX\U`hi b[ga U» bU\aYb'ni 'Yf\Ò\Yb'i bX'X]Y'Ni j Yf`Agg][\_Y]h
ni 'ghY][Yfb''

=a '>J\f'&\$&%'k i fXYb'Vi bXYgk Y]h'Yhk U'\* ž%'A]``]UfXYb'9i fc']b'X]Y ±bghUbX\U`hi b['i bX'XYb'5i gVUi 'XYf'GW\]YbYb]bZfUghfi \_hi f ]bj Ygh]Yfhž'k Ug'Y]bYa '\]ghcf]gW\Yb'< ÒW\ghghUbX'Ybhgdf]W\h''9]bY gc`W\Y'±bj Ygh]h]cb']gh'VYgcbXYfg'k ]W\h][ ž'i a 'XYb <YfUi gZcfXYfi b[Yb'Xi fW\'ghY][YbXYg': U\f[UghUi Z\_ca a Yb'i bX XYb'k UW\gYbXYb'5bZcfXYfi b[Yb'XYg'?`]a UgW\i hnYg'[YfYW\h'ni k YfXYb"'Hfchn'X]YgYf': ]bUbna ]hhY`'V`Y]VYb'j ]Y`Y 

#### 9]b 6`]W\_'Ui Z'X]Y FY[]cbU`k ]fhqW UZh

8]Y'5i gk]f\_i b[Yb'j cb'GhÒfi b[Yb']a 'BU\j Yf\_Y\f'g]bX'b]W\h'bi f ZØf'DYbX`Yf'gdØfVUf"'5i W\X]Y'`c\_U`Y'K]fhgW\UZh'`Y]XYh'i bhYf gc`W\Yb'J cfZÀ``Yb"'I bhYfbY\a Yb'g]bX'Ui Z'ni j Yf`Àgg][Y HfUbgdcfha Ò[`]W\\_Y]hYb'Ub[Yk]YgYbž'i a ']\fY'K UfYb'i bX 8]Ybgh`Y]ghi b[Yb'YZZ]n]Ybh'Ubni V]YhYb"'9]b'fY]Vi b[g`cgYf BU\j Yf\_Y\f']gh'XU\Yf'YbhgW\Y]XYbX'ZØf'X]Y'k]fhgW\UZh`]W\Y JYfZYW\hi b['XYf'GhÀXhY'i bX'FY[]cbYbž']bgVYgcbXYfY']b'NY]hYbž]b'XYbYb'j ]Y'Y'A YbgW\Yb'Ui Z'i a k Y`hZfYi bX`]W\Y HfUbgdcfhU`hYfbUh]j Yb'i a ghY][Yb"

Ni gàhn`]W\ ZØ\fh`XYf`k ]YXYf\c`hY`5i gZU```j cb`G!6U\b!@]b]Yb`ni Y]bYa 'JYfhfUi Ybgj Yf`i gh']b`X]Y`OZZYbh`]W\Yb`JYf\_Y\fga ]hhY`"'I a XUg`JYfhfUi Yb`ni fØW\_ni [Yk]bbYbž'a ØggYb`X]Y`6YhfY]VYf`b]W\h bi f`X]Y`\dag{b}ZfUghfi \_hi f`j YfVYggYfbž'gcbXYfb`Ui W\`ghàf\_YfY?ca a i b]\_Uh]cbgghfUhY[]Yb`Ybhk]W\_Y`bž'i a ': U\f[ AghY`nY]hbU\ ØVYf`DfcV`Ya Y`i bX`XYfYb`@Oqi b[Yb`ni ]bZcfa ]YfYb"

8YhU]`g