

## ?cW\\_i bgh'Ui g'U``Yf'K Y`h.'A U\_Y`Yg :ig]cb']b''FYghUi fUbh'GW\fYVYf\Ui g' \]bhYfZfU[h

9fZU\fYb'G]Yž'k Ufi a 'A U\_Y`Y'VY]'/ ei ch/A Y]b'@c\_U`ž'8Y]b@c\_U'/ ei ch/b]W\h'a ]h'gc'j]Y`'?f]h]\_'[YfYW\bYh'\Uh''<Yi hYi a '%+.))'I\f'Ui Z'?UVY`'9]bg"

## I bj Yf\cZZhY`K YbXi b[`]a `FYghUi fUbh GWXfYVYf\Ui g

9]bii b[`Ui V`]WXYg'\_i`]bUf]gWXYg'9I dYf]a YbhiZ]bXYhiA]hhYiXYf K cWXY']a i FYghUi fUbhiGWXfYVYf\Ui g i]bi9gg`]b[YbighUhhi8Yf hU`Ybh]YfhYi; Ughfcbca iA U\_Y`YidfÀgYbh]YfhiY]bYi: i g]cbiUi g 9f]hfYUžigWXkÀV]gWXYfii bXifi a Àb]gWXYfi?ØWXY"8cWXik]fXiYf XUa]hiX]Yi<YfnYbigY]bYfi?cb\_i ffYbhYbi[Yk]bbYbi\_ObbYb3i8]YFYU\_h]cbYbiUi ZiX]Yii b[Yk O\b`]WXYiA]gWXi b[ig]bX ØVYffUgWXYbX

## =bhYfYggUbhY'=bZcfa Uh]cbYb'ni 'AY]b'@c\_U`ž8Y]b'@c\_U`

- 8]Y'VY\_UbbhY'8c\_i!GcUd' AY]b'@c\_U`ž'8Y]b'@c\_U` 'k]fX gY]h'&\$%' 'Ui Z'?UVY`'9]bg'Ui g[YghfU\`h"
- XXY'K cW\Y'hfYhYb'ZØbZ'FYghUi fUbhVYhfY]VYf'Ui g XYfgY`VYb'GhUXh'[Y[YbY]bUbXYf'Ubž'i a 'XUg'VYghY FYghUi fUbh'ni '\_ØfYb"
- 5b'YXYa'K cWXYbhU['ÒZZbYh'Y]b'UbXYfYf
  FYghUi fUbhVYg]hnYf'X]Y'HØfYb'gY]bYg'@c\_U`g'ZØf'X]Y
  ?cb\_i ffYbhYb"
- $9g^*k YfXYb^*Y]bY^*J cfgdY]gY\check{z}^*Y]b^* < Ui dh[Yf]Wkh^*i bX^*Y]b$

- 8 YggYfh'gYfj ]Yfhž']b\_`i g]j Y Yl \_`i g]j Yf'9]bV`]W\_Y']b 'X]Y ? ØWXY"
- 5a '9bXY'YXYf'9d]gcXY'k YfXYb'Di b\_hY'j Yf[YVYbži bX Ui WX'A cXYfUhcf'i bX'GhUf\_cWX'A]\_Y'GØggYf'VYk YfhYh'X]Y
   @Y]ghi b[Yb"

## JÒ``][ 'i bYfk UfhYhY'?f]h]\_Yb

 $\label{thm:ni_family} Ni ``6Y[ ]bb']gh'A U_Y`Y'ni j Yfg]Wkh`]Wk'i bX``cVh'j cf'U``Ya `X]Y \\ GdYn]U`]hAhYb'XYg'<Ui gYg''8cWk'XUbb'Zc`[ h'XYf'GWk'cW_. 'GY]bY \\ A ]hghfY]hYf'g]bX'U``Yg'UbXYfY'U`g'VY[ Y]ghYfh''@cfYbn'VYa Ab[ Y`h X]Y'?cbg]ghYbn'gY]bYg'7Yj UdW]W]'i bX'Ui Wk'GhYZUbg'; i `UgWk'a ]h \\ GdAhn`Y'k ]fX'\Ufh'_f]h]g]Yfh''A U_Y`Y']gh'ZUggi b[ g`cg'ØVYf'X]Y \\ \UfgWkYb'K cfhYž']bgVYgcbXYfY'XU'Yg'g]Wk'i a 'X]Y \\ @]YV`]b[ g[ Yf]Wk'hY'gY]bYg'FYghUi fUb'hg'\UbXY`h'' <math>\Rightarrow$ Wk'V]b'k  $\}f_{\_}`]Wk \\ Yhk Ug'YbhhAi gWk'h ž'[ YghY\h'Yf']b'Y]bYa 'UbgWk']Y''yYbXYb \\ \Rightarrow bhYfj ]Yk'''K Y`Wk'Y'5i gk ]f_i b[ Yb'X]YgY'6Yk Yfhi b[ Yb'Ui Z'X]Y \\ Di b_hYj Yf[ UVY'\UVYb'k YfXYbž'V'Y]Vh'UVni k UfhYb'''8]Y'GdUbbi b[ ghY][ h'ZØf'X]Y'\Yi h][ Y'9d]gcXY'j cb' A Y]b'@c_U`ž'8Y]b'@c_U`''' \\ \end{tabular}$ 

 $J Y f d U g g Y b ``G] Y ``b] W h ``X] Y ``b Y i Y g h Y `: c`[ Y `'j c b ``A Y] b ``@c_U`ž' 8 Y] b @c_U` ž'`Y X Y b ``A c b h U [ ``V] g `: f Y] h U [ ``i a ``%+.) ) ``I \ f ``U i Z'? U V Y ``9] b g c X Y f ``x m b "$ 

B 5;

8 Y hU]`q

6 Ygi W Yb G]Y i bg Ui Z b!U[ "XY