

# @Y]WXY'Y]bYf'(\*!A\f][Yb']b': i `XUVfØW\_YbhXYW\_h' 'Dc`]nY]'V]hhYh'i a '<]bk Y]gY

@Y]W\Y'Y]bYf'(\*! $\lambda$ \f][Yb'Ui g'XYa 'GW\k U`a !9XYf!?fY]g']b: i `XUVfØ\\\_'[YZ bXYb' 'Dc`]nY]'Yfa ]hhY`h'k Y[Yb'a  $\delta$ [`]\\Ya H $\delta$ hi b[gXY`]\_h"

## 9fa ]hh`i b[Yb'bUW\'@Y]W\YbZi bX']b : i `XUVfØW\_

9]b 'hfu[ ]gW\Yf'J cfZU```\Uh'X]Y'; Ya Y]bXY': i `XUVfØW\_'YfgW\ØhhYfhž bUW\XYa 'Ua 'j Yf[ Ub[ YbYb 'GcbbhU[ 'X]Y'@Y]W\Y'Y]bYf' (\*!'À\f][ Yb: fUi 'Ui g'XYa 'GW\k U`a !9XYf!?fY]g']b'Y]bYa 'K U`XghØW\_'bU\Y'XYf <U`hYghY``Y'?]`]UbgV`]W\_'YbhXYW\_h'k i fXY"'8]YgY'gW\cW\_]YfYbXY 9bhXYW\_i b[ 'k ]fZh'b]W\h'bi f': fU[ Yb'ni a 'GW\]W\_gU``XYf': fUi 'Ui Zź gcbXYfb'VY`Yi W\hYh'Ui W\'X]Y'6YXYi hi b[ 'XYf'ÒZZYbh']W\Yb 6YhY]`][ i b[ 'Ub'9fa ]hh`i b[ gj cf[ Àb[ Yb"

#### 5\_h]cb XYf Dc `]nY] i bX NYi [ YbUi Zfi Z

B UWX XYa  $X]Y Dc^ny] b X X]Y GhUUhgUbk UhgWX UZh? UggY^Ua A cbhU[Y]bYb NYi [YbUi Zfi Z'[YghUfhYh'\UhhYbži a <math>\Rightarrow$ Zcfa Uh]cbYb ni f' $\Rightarrow$ Ybh]hÀh'XYf'J YfghcfVYbYb'ni Yf\UhYbža Y`XYhYb'g]WX a Y\fYfY'6Øf[Yfa]h'<]bk Y]gYb"'8 UVY]'k i fXY'Y]b': chc'j cb Ui ZZÀ``][Yb'C\ff]b[YbžX]Y']b': cfa 'j cb'A YggYfb'[YghU`hYh'k UfYbž j YfÒZZYbh`]WXh"'8]Yg'nY][hžk]Y'k]WXh][X]Y'?ccdYfUh]cb'nk]gWXYb Dc`]nY]'i bX'6Yj Ò`\_Yfi b[']b'gc`WXYb': À``Yb']gh"

9fghY '9f\_Ybbhb]ggY 'XYf 9fa ]hh`i b[gVY\ÒfXYb 8]Y'9fa]hhìi b[Yb'XYf'?UggY`Yf'?f]a]bU`dc`]nY]'j Yf`Ui ZYb']bhYbg]j"
@Ui h'XYf'Dc`]nY]gdfYWXYf]b'I `f]\_Y'GWXUU\_Y'\Uh'g]WX'XYf
UbZÀb[`]WXY'JYfXUWXh'Yf\ÀfhYhž'XUgg'Yg'g]WX'i a 'Y]b'HÒhi b[gXY`]\_h\UbXY`b'\_ObbhY"'Ni '9]bnY`\Y]hYb'ØVYf'a O[`]WXY'HUhj YfXÀWXh][Y
Ài »Yfh'g]WX'X]Y'Dc`]nY]'b]WXhž'k Ug'nY][hž'k]Y'gYbg]VY`']b'gc`WXYb
: À``Yb'a]h' \$\darksig ZcfaUh]cbYb'i a[Y[Ub[Yb'k]fX"

### 8f]b[YbXYf'5ddY``'Ub'X]Y'6Yj O`\_Yfi b[

 $8 ]Y `9fa ]hh`Yf`fi ZYb`X]Y `6Yj `O`_Yfi b[ `XUni `Ui Zž`U``Y`j YfXÅW\h][ Yb 6YcVUW\hi b[ Ybž`]bgVYgcbXYfY`Ui g`XYf`K cW\Y`j cf`XYa @Y]W\YbZi bX`i bX`]a `6YfY]W\`nk ]gW\Yb`XYf`@UbXghfU\Y`i bX`XYa K ]bXdUf_`G`O\fYž`ni `a Y`XYb\"`<]bk Y]gY`_ObbYb`VY]a Dc`]nY]dfÅg]X]i a `BcfX\YggYb`i bhYf`XYf`HY`YZcbbi a a Yf $) * \## \%$$`UV[ Y[ YVYb`k YfXYb\"`8]Y`^2 ZZYbh`]W\_Y]h`gd]Y`h`Y]bY YbhgW\Y]XYbXY`Fc``Yž`i a `@]W\h`]bg`8 i b_Y``ni `Vf]b[ Yb`i bX ; YfYW\h][ _Y]h`ZØf`XUg`CdZYf`ni `Yf`Ub[ Yb\"$ 

#### DgmWkc`c[]gWkY'lbhYfghØhnib['ZØf'NYi[Yb

8]Y 'VY]XYb': fUi Ybž'X]Y 'ZY 'ZUbXYbž'a i gghYb'bUW 'XYa gW\cW\_]YfYbXYb': i bX'gYY\gcf[Yf]gW\'VYhfYi h'k YfXYbž'k Ug'X]Y Ya ch]cbU\Yb'5i gk ]f\_i b[Yb'gc\W\Yf'9bhXYW\_i b[Yb'j YfXYi h\]W\h' 9g']gh'k ]W\h]['ni 'Yf\_YbbYbž'XUgg'b]W\h'bi f'X]Y'5b[Y\Of][Yb'XYg CdZYfgž'gcbXYfb'Ui W\'i bVYhY]\][hY'NYi [Yb'i bhYf'XYa '9f\YVhYb\Y]XYb'\_ObbYb"'8]Y'6YfY]hghY\`i b['j cb'l bhYfghØhni b[']b'gc\W\Yb:\A\`Yb']gh'j cb'[fc\)Yf'6YXYi hi b["

## : Un]h. ; Ya Y]bgW\UZh'U`g'GW\`ØggY``ni f 5i Z\_`Àfi b[

8 Yf'hfu[]gWXY'JcfZU```]b::i`XUVfØW\_'Yf]bbYfh'i bg'XUfUbž'k]Y
j Yfk i bXVUf'i bgYfY'; Ya Y]bgWXUZhYb'gY]b'\_ObbYb"'8Yf':U``
i bhYfghfY]WXh'X]Y'Bchk YbX][\_Y]h'Y]bYf'Yb[Yb'Ni gUa a YbUfVY]h
nk ]gWXYb'Dc`]nY]'i bX'6Øf[Yfb'gck]Y'X]Y'6YXYi hi b['XYf'a YbhU`Yb
; Ygi bX\Y]h'ZØf'U``Y'6YhY]`][hYb"'8]Y'5i Z\_`Àfi b['gc`WXYf
J YfVfYWXYb'YfZcfXYfh'b]WXh'bi f'9fa ]hhi b[qUfVY]hž'gcbXYfb'Ui WX

 $X]Y'I \ bhYfghØhni \ b['i b X'5W hgUa _Y]h'XYf'[YgUa hYb'; Ya Y]bgW UZhži a '; YgW Y \ b]ggY'Ui Zni _`AfYb'i b X'ni 'j Yf \]bXYfbž'XUgg'g]W A \ b`]W Y'HfU[OX]Yb'k ]YXYf \ c`Yb''$ 

8 Y hU] `c

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