

# @UbXgVYf[ 'Ua '@YWX.'9bhXYW\_Y; YgWX]WXhYž'; Ybi gg'i bX'[fØbY 5VYbhYi Yf°

9bhXYW\_Yb'G]Y'X]Y'5`hghUXh'j cb'@UbXgVYf['Ua'@YW\ž [Yb]Y»Yb'G]Y'fY[]cbU`Y'GdYn]U`]hÀhYb'i bX'Yf`YVYb'G]Y Ci hXccf!5VYbhYi Yf"'H]ddg'ZØf'?i bghž'?i `hi f'i bX': chcgdchg k UfhYb'Ui Z'G]Y°



K ]``\_ca a Yb']b'@UbXgVYf['Ua '@YW\' Y]bYa 'W\Ufa UbhYb GhÀXhW\Ybž'XUg'g]W\'a U`Yf]gW\'Ub'XYb'I ZYfb'XYf'@YW\gW\`Y]ZY YfghfYW\_h'i bX'Y]bY': Ø``Y'j cb'9f`YVb]ggYb'V]YhYhž'X]Y'XUfUi Z k UfhYbž'YbhXYW\_h'ni 'k YfXYb"'? Ui a 'Y]bY'UbXYfY'GhUXh']b'6UmYfb \_Ubb'a ]h'Y]bYf'gc'[i h'Yf\U`hYbYb'5`hghUXh'i bX']\fYa '\]ghcf]gW\Yb: `U]f'Ui Zk UfhYb"'J cb'XYf'VYY]bXfi W\_YbXYb'5fW\]hY\_hi f'XYf'U`hYb GhUXha Ui Yfb'V]g'\]b'ni 'XYb'j ]Y`Yb'\_`Y]bYb'; UggYbž'X]Y'ni a 6i a a Y`b'Y]b`UXYbž'[]Vh'Yg'\]Yf'j ]Y``ni 'Yf\_i bXYb"

5 V Y f '@Ub X g V Y f[ ']gh'b] W h'bi f 'Y]b 'C fh' X Y f '; Y g W ] W h Y / X]Y 'GhU X h \ Uh'Ui W 'Y]b][ Y '\_i `]b U f]g W Y '? Ògh`] W \_Y]h Y b 'ni 'V]Y h Y b ž 'X]Y 'X Y]b Y

; YgW\a UW\_g\_bcgdYb'j Yfk  $O\bYb'k YfXYb'' < ]Yf'_Ubbgh'Xi']b$  [Ya  $\emptyset$ h`]W\Yb'@c\_U`Yb'fY[]cbU`Y'GdYn]U`]h\hYb'dfcV]YfYbž'X]Y Ni Zi W\h']b'XYb'HfUX]h]cbYb'XYf'VUmYf]gW\Yb'? $\emptyset$ W\Y'bY\a Yb''

K Ybb Xi 'Y]b : Ub 'j cb 'C i hXccf! 5\_h]j ]hÀhYb 'V]ghž'k ]fgh Xi 'X]Y I a [ YVi b[ '`]YVYb " 8 ]Y 'B Uhi f'fi bX 'i a 'XYb '@YWX 'V]YhYh Y]bY J ]Y`nU\``Ub 'A Ò[ `]WX\_Y]hYb 'ZØf' 5 VYbhYi Yf']b 'XYf' ZfY]Yb 'B Uhi f" 'C V F UXZU\fYbž'K UbXYfb 'cXYf'Y]b ZUWX 'bi f'X]Y 'UhYa VYfUi VYbXY @UbXgWX UZh [ Yb]Y "Ybž'\]Yf']gh 'ZØf' 'YXYb 'Yhk Ug'XUVY]"

8]Y'\_i`hi fY``Y'GY]hY'@UbXgVYf[g'ØVYffUgWkh'YVYbgc.'AigYYb'ibXjYfgWk]YXYbY'JYfUbghU`hi b[Yb'`UXYb'XUni 'Y]bž']b'X]Y'`c\_U`Y?i bghgnYbY'Y]bni hUi WkYb'i bX'X]Y'; YgWk]WkhY'XYf'GhUXh'Ui Z'bYi YKY]gYb'ni 'Yf`YVYb"'I bX'ZØf'U``Y': chc[fUZ]Y!9bh\ig]UghYb'\UVYbk]f'Y]b][Y'; Y\Y]ah]ddg'ZØf'UhYaVYfUi VYbXY': chc!Gdchgž'X]Y[UfUbh]Yfh'ZØf'i bj Yf[Ygg`]WkY'9f]bbYfi b[Yb'gcf[Yb'kYfXYb"

@Ugh'Vi h'bch``YUgh'\_Øa a Yfb'k]f'i bg'i a 'X]Y'dfU\_h]gW\Y'GY]hY'XYf 8]b[Y''jcb'XYf'VYei Ya Yb'5bfY]gY'V]g'\]b'ni 'XYb'VYghYb , VYfbUW\hi b[ga Ò[`]W\\_Y]hYbž'X]Y'XY]bYb'5i ZYbh\U`h']b'X]YgYf VYnUi VYfbXYb'GhUXh'gc'Ub[YbY\a'k]Y'a Ò[`]W\a UW\Yb"'5i Z [Y\h g'''Uggh'i bg'YbhXYW\_Ybž'k Ug'@UbXgVYf['Ua''@YW\ni''V]YhYb\Uh'

### 8]Y`\]ghcf]gW\Y`5`hghUXh`j cb`@UbXgVYf[`Ua @YW\`Yf i bXYb

 $8 ]Y `` ]ghc f]gWX Y `5`hghUXhij cb `@UbXgVYf[ ``Ua ``@YWX `]gh'Y]b `k U\fYg \\ $\dot{X} & Y``]a ``< YfnYb `6UmYfbg" `A ]h']\fYb `WX Ufa UbhYb `; UggYbž \\ ZUfVYbZfc\Yb `: UggUXYb `i bX `a U`Yf]gWXYb `D`ÀhnYb `n]Y\h'g]Y \\ 6Ygi WXYf `Ui g `U``Yf `K Y`h `Ub" `8]Y `GhUXhž `X]Y `Ua ``@YWX Zi gg ``]Y[ hž `\Uh Y]bY ``Ub[ Y `; YgWX]WX hYž `X]Y `V]g `]bg `A ]hhY`U`hYf `ni f<math>@W_fY$ ]WX h" `9]b GdUn]Yf[ Ub[ `Xi fWX `X]Y `5`hghUXh `]gh `k ]Y `Y]bY `FY]gY `]b `X]Y J Yf[ Ub[ Yb Y]h"

6Y]a '6YhfYhYb'XYf'5`hghUXh'k]fX'a Ub'gcZcfh'j cb']\fYa\]ghcf]gWXYb': `U]f'j YfnUi VYfh''8]Y'a]hhY`U`hYf`]WXYb'; YVÀi XY'i bXX]Y'[i h'Yf\U`hYbYb'GhUXha Ui Yfb'YfnÀ\`Yb'j cb'Y]bYf'VYk Y[hYb

; YgWX]WX hY"'6Y[]bbYb'G]Y' $\Rightarrow$ fY'9f\_i bXi b['Ua'?c``a Ubbd`Uhnž Y]bYa 'XYf'gWX ObghYb'D`AhnY'XYf'GhUXhž'XYf'j cb'WXUfa UbhYb 7UZÅg'i bX'; YgWXAZhYb'[YgAi a h'k]fX"'<]Yf'\_ObbYb'G]Y'g]WX'a ]h Y]bYf'HUggY'?UZZYY'ghAf\_Ybž'k A\fYbX'G]Y'XUg'Vi bhY'HfY]VYb'i a g]WX'\Yfi a 'VYcVUWXhYb"

9]b UVgc`i hYgʻA i ggʻ]ghʻXYfʻ6Ygi WʻXYfʻGhUXhdZUff\_]fW\YʻA Uf]Å < ]a a Y`ZU\fhžʻX]Yʻa ]hʻ]\fYa 'VYY]bXfi W\_YbXYb' < cW\U`hUfʻi bX`XYb dfÀW\h][Ybʻ6UfcW\_j Yfn]Yfi b[YbʻVY[Y]ghYfh"·8]Yʻ?]fW\Yž'X]Yʻ]a '%(" \$\J\f\i bXYfh`YfVUi h'k i fXYžʻV]YhYhʻb]W\hʻbi fʻY]bYbʻgd]f]hi Y``Yb  $F \emptyset W_n$ i [gcfhžʻgcbXYfbʻUi W\Y]bYbʻVYY]bXfi W\_YbXYbʻ6`]W\_ $\emptyset V$ Yf X]YʻGhUXhʻj cbʻ]\fYa '?]fW\hi fa 'Ui g"

9]b'k Y]hYfYf'< Ò\Ydi b\_h']gh'XUg'K ]hhY`gVUW\Yf'GW\`cggž'XUg'ØVYf XYf'5`hghUXh'h\fcbh"'9g'YfZÀ\fh'XYfnY]h'i a ZUb[fY]W\Y FYbcj]Yfi b[gUfVY]hYb'i bX'k ÀfY'Y]b']XYU`Yf'D`Uhn'ZØf'Y]bY \_ØbZh][Y'9f\_i bXi b["'GW\cb'j cb'Ui »Yb'VYY]bXfi W\_h'XUg'GW\`cgg a ]h'gY]bYf'VYY]bXfi W\_YbXYb'5fW\]hY\_hi f'i bX'V]YhYh'Y]bYb k i bXYfVUfYb'DUbcfUa UV`]W\_'Ui Z'X]Y'I a [YVi b["'5fVY]hYb'G]Y g]W\'Xi fW\'X]Y'[YgW\]W\hghf\AW\h][Yb'; \Ab[Y'i bX'YfZU\fYb'G]Y a Y\f'ØVYf'X]Y'; YgW\]W\hghf\AW\h][Yb'; \Ab[Y'i bX'YfZU\fYb'G]Y

8]Y'[YgUa hY'5`hghUXh']gh'j cb'i f][Yb'K]fhg\Ài gYfb'i bX'\_`Y]bYb
6ci h]ei Yb'[YdfÀ[hž'X]Y'ni a '6i a a Y`b'i bX'JYfk Y]`Yb'Y]b`UXYb"
<]Yf'\_ÒbbYb'G]Y'VUmYf]gW\Y'HfUX]h]cbYb'Yf`YVYb'i bX'`c\_U`Y
?Ògh`]W\\_Y]hYb'[Yb]Y»Yb"'6YgcbXYfg'X]Y'GW\a U`nbi XY`b'i bX'XYf
@YW\Vi f[YfžY]bY'fY[]cbU`Y'GdYn]U`]h\Ahz'gc``hYb'\_Y]bYgZU``g
Ui g[Y`UggYb'k YfXYb"'9]b'[Ya Øh`]W\Yg'5VYbXYggYb']b'Y]bYa 'XYf
; Ugh\\Ai gYf']gh'XYf'dYfZY\_hY'5VgW\`i gg'Y]bYg'Yf`YVb]gfY]W\Yb
HU[Yg"

9]b'k Y]hYfYf'VYXYi hYbXYf'Di b\_h']b'XYf'5`hghUXh']gh'XUg'D]hh']cb i bX'X]Y'GhUXha Ui Yf"\8]Y'GhUXha Ui Yf'\Uh'Y]bYb'[fc»Yb'HY]`']\fYf Ghfi \_hi f'VYk U\fh'i bX'V]YhYh'Y]bYb']bhYfYggUbhYb'9]bV`]W\_']b'XUg @YVYb']a 'A]hhY`U`hYf"'9]b][Y'XYf'HØfa Y'g]bX'ZØf'6Ygi W\Yf ni [Àb[`]W\'i bX'\_ÒbbYb'Yf\_i bXYh'k YfXYb"'8]Y'5i gg]W\hYb'j cb XYb'A Ui Yfb'g]bX'gdY\_hU\_i `Àf'i bX'V]YhYb'hc``Y': chca Ò[`]W\\_Y]hYb"

J Yfd UggYb 'G]Y 'b]Wk h'X Ug 'GhUXha i gYi a ž'X Ug 'g]Wk ']b 'Y]bYa \ ]ghcf]gWk Yb'; YVÀi XY 'VYZ]bXYh'i bX'Y]bY 'gd UbbYbXY 'GUa a `i b[ ni f'GhUXh[ YgWk]Wk hY 'dfÀgYbh]Yfh" < ]Yf'YfZU\ fYb'G]Y 'a Y\f'ØVYf'X]Y 9bhk ]W\_`i b[ 'j cb'@UbXgVYf[ ž'X]Y 'U`hY 'GU`nghfU» Y'i bX'X]Y 'F c``Y'XYf GhUXh']a '< UbXY`" '8 Ug 'A i gYi a 'V]YhYh'ni XYa 'fY[ Y`a À» ][ k YWk gY`bXY'5i gghY``i b[ Yb'i bX'J YfUbghU`hi b[ Yb'Ubž'X]Y'Y]bYb 6Yqi Wk 'bcWk']bhYfYqgUbhYf'a UWkYb"

: U``g`G]Y`Ub`Y]bYa :: fY]hU[ ']b`@UbXgVYf[ 'g]bXž``c\bh`g]W\`Y]b
6Ygi W\`XYg`K cW\Yba Uf\_hYgž`XYf`Ui Z`XYa '< Ui dhd`Uhn
UV[ Y\U`hYb`k ]fX"' < ]Yf`Z]bXYb`G]Y`Zf]gW\Y`fY[ ]cbU`Y`DfcXi \_hYž
\UbX[ Ya UW\hY`K UfYb`i bX`a Y\f"`8Yf`A Uf\_h`V]YhYh`Y]bY`dYfZY\_hY
; Y`Y[ Yb\Y]hž`a ]h`XYb`9]b\Y]a ]gW\Yb`]bg`; YgdfÀW\`ni '\_ca a Yb
i bX`X]Y`VUmYf]gW\Y`@YVYbgUfh`\Ui hbU\`ni 'Yf`YVYb"

8]Y 5 hghUXhij cb @UbXgVYf[ 'Ua '@YW\ ']gh'b]W\ h'bi f'Y]b 'Cfhij c``Yf; YgW\]W\ hYž'gcbXYfb 'Ui W\ 'Y]b '`YVYbX][ Yf'D`Uhnž'Ub 'XYa 'HfUX]h]cb Ui Z'a cXYfbY '@YVYbgUfh'hf]ZZh" 'CV 'VY] 'Y]bYa '[ Ya Øh`]W\ Yb GdUn]Yf[ Ub[ 'Xi fW\ 'X]Y '; UggYbž'VY]a '; Yb]Y » Yb 'fY[ ]cbU`Yf'? ØW\ Y cXYf'VY]a '9f\_i bXYb 'XYf'\]ghcf]gW\ Yb 'GY\ Ybgk ØfX][ \_Y]hYb' '\]Yf [ ]Vh'Yg'ZØf'YXYb 'Yhk Ug'ni 'YbhXYW\_Yb" 'K U[ Yb'G]Y'g]W\ 'Ui Z'X]Y GhfU» Yb'j cb'@UbXgVYf[ 'i bX'Yf`YVYb'G]Y'X]YgY'VYnUi VYfbXY'GhUXh gY`Vgh'

# ? $i `]bUf]gWXY' < ][ \ `][ \ hg'i bX'fY[ ]cbU`Y GdYn]U`]hÀhYb$

8]Y'\_i`]bUf]gWXY'GnYbY']b'@UbXgVYf['Ua'@YWX']gh'Y]b'k U\fYg': Ygh
ZØf'X]Y'G]bbY"'<]Yf'hf]ZZh'VUmYf]gWXY'HfUX]h]cb'Ui Z'a cXYfbY
; Ughfcbca]Y'i bX'V]YhYh'; Ui a YbZfYi XYbž'X]Y'gck c\`
9]b\Y]a]gWXY'U`g'Ui WX'; ÀghY'VY[Y]ghYfb"'8]Y'FY[]cb']gh'VY\_Ubbh
ZØf']\fY'\Yfn\UZhYb'GdY]gYbž'Zf]gWX'[YVfUi hYg'6]Yf'i bX'Y]bY
J]Y`nU\`j cb'gØ» Yb'@YW\_YfY]Ybž'X]Y'U``Y']\fY'Y][YbY'; YgWX]WXhY
YfnÀ\`Yb"

9]bii bj Yfn]WkhVUfYf'6YghUbXhY]`XYf'VUmYf]gWkYbi?ØWkYi]ghiXUg' K Y]»V]Yf"'Ni gUa a Ybia ]hiY]bYa 'Zf]gWki[YVUW\_YbYbi6fYnYbi XYa 'hmd]gWkYa 'XYi hgWkYbi@Ui [Yb[YVÀW\_ik]fXiYgi]bij ]YiYbiXYf [Ya Øh`]WXYb`6]Yf[ ÀfhYb`i bX`K ]fhg\Ài gYfb`XYf`GhUXh`gYfj ]Yfh" 6YgcbXYfg`Ya dZY\`Ybgk Yfh`]gh`XYf`6Ygi WX`Y]bYg`hfUX]h]cbY``Yb K ]fhg\Ui gYgž'k c`a Ub`XUg'; YZØ\``\Uhž`]b`Y]bY`UbXYfY`NY]h j YfgYhnh`ni `k YfXYb"'<]Yf`]gh`cZh`X]Y`5ha cgd\ÀfY`gc`\Yfn`]WX`i bX X]Y`GWXUb\_ghi bXYb`gc`[YgY``][ž`XUgg`a Ub`gWXbY```]bg'; YgdfÀWX a ]h`9]b\Y]a ]gWXYb`\_ca a h"

K Ybb'G]Y'Ui Z'XYf'Gi WXY'bUWX'\Yfn\UZhYb'GdY]gYb'g]bXž'gc``hYbG]Y'X]Y'GWXkY]bg\UIY'cXYf'XUg'K]YbYf'GWXb]hnY``dfcV]YfYbžXUg']b'@UbXgVYf['a]h'Y]bYf'VYgcbXYfYb'BchY'gYfj]Yfh'k]fX"'8]Y?caV]bUh]cb'Ui g'\_bi gdf]['Yf'?fi ghY'i bX'gUZh]['Ya': `Y]gWX'a UWXhYYg'; Yf]WXh'ni 'Y]bYa'\_i `]bUf]gWXYb'9f`YVb]g"'J]Y`Y'FYghUi fUbhgV]YhYb'Ui WX'JUf]Uh]cbYb'j cb'hfUX]h]cbY``Yb'; Yf]WXhYb'Ubž'X]Y'X]YFY[']cb'ghÀf\_Yb'i bX'Zf]gWXY'`c\_U`Y'Ni hUhYb']bhY['f]YfYb"

: Øf'X]Y'@]YV\UVYf'gØ» Yf'J Yfgi Wki b[Yb']gh'@UbXgVYf['Ua'@YWk'YVYbZU``g'Y]b'DUfUX]Yg"'DfcV]YfYb'G]Y'XUg'hmd]gWkY'@YWk!

A c\b[YVÀW\_ž'XUg']b'j ]Y`Yb'6ÀW\_YfY]Yb'XYf'GhUXh'Yf\À`h`]Wk']gh"

8]YgYg'g'Ø» Y'GhØW\_WkYb'a]h'A c\bZØ``i b['i bX'Y]bYa'<Ui Wk'j cb
Ni W\_Yf[i gg']gh'gck c\``Y]b'<cWk[Ybi gg'U`g'Ui Wk'Y]bY'<ca a U[YUb'X]Y'FY[]cb"'9VYbZU``g'Ya dZY\`Ybgk Yfh'g]bX'X]Y'5dZY`ghfi XY`i bX'X]Y'GWkY]hYf\Ui ZYbž'X]Y'X]Y'?cWk\_i bgh'XYf'VUmYf]gWkYb?ØWkY'ki bXYfVUf'fYdfÀgYbh]YfYb"

I a 'X]Y'\_i `]bUf]gW\Y'J]Y`ZU`h'XYf'GhUXh'[YVØ\fYbX'ni 'Yf\_i bXYbž V]YhYh'Yg'g]W\'Ubž'Ub'Y]bYa '\_i `]bUf]gW\Yb'GhUXhgdUn]Yf[Ub[ hY]`ni bY\a Yb"'<]Yf'ZØ\fh'G]Y'Y]b'ZUW\\_i bX][Yf'; i]XY'Xi fW\'X]Y VYghYb'[Ughfcbca]gW\Yb'5XfYggYb'i bX'Yf`Ài hYfh'X]Y <]bhYf[fØbXY'XYf'fY[]cbU`Yb'GdYn]U`]hÀhYb"'CZh'[]Vh'Yg'Ui W\ JYf\_cghi b[Ybž'VY]'XYbYb'a Ub'X]Y'5fca Yb'i bX'; YgW\a ÀW\_Yf'XYf

#### FY[]cbU`Y; YhfÀb\_Y

; i hini f'VUmYf]gWXYb'?ØWXY'dUggYb'X]Y'j ]Y`ZÀ`h][Yb'`c\_U` [YVfUi hYb'6]YfY"'\D'@UbXgVYf['g]bX'a Y\fYfY'6fUi YfY]Yb UbgÀgg][ž'X]Y'6]YfhfUX]h]cbYb'dZY[Yb'i bX'\_Ògh`]WXY'6]YfY UbV]YhYb"'6YgcbXYfg'\YfUi gfU[YbX']gh'XUg'< Y``Yg'6]Yfž'XUg Xi fWX 'gY]bYb'a ]`XYb'i bX'a U`n][Yb'; YgWXa UW\_'VYgh]WXh"; Yb]Y» Yb'G]Y'Y]b'Zf]gWX '[YnUdZhYg'6]Yf']b'Y]bYa 'XYf'nU\`fY]WXYb 6]Yf[ÀfhYb' 'XYf']XYU`Y'Cfhž'i a 'X]Y'5ha cgd\ÀfY'XYf'GhUXh Ui Zni qUi [Yb"

- @YWW.16fAi . '9]bY'XYf'A`hYghYb'6fUi YfY]Yb'XYf'GhUXh'a ]h Y]bYa 'Gcfh]a Ybh'Ub'hfUX]h]cbY``Yb'6]YfgcfhYb"
- ; ]Yg]b[Yf'6fÀi.'6Y\_Ubbh'ZØf']\fY']bbcj Uh]j Yb'7fUZh! 6]YfYž'X]Y'Y]bYb'a cXYfbYb'Hk ]gh'V]YhYb"
- 6fUi YfY]'9[YfYf.'6YfØ\a h'ZØf']\f'\Yfn\UZhYf'Xi b\_`Yg 6]Yfž'XUg'dYfZY\_h'ni 'XYZh][Yb'GdY]qYb'dUggh"

#### ?i`]bUf]gWXYJYfUbghU`hib[Yb

JYfUbghU`hib[	6YgWxfY]Vib[	8 Uhi a
@UbXa Uf_h	FY[]cbU`Yf'AUf_h	≯XYb GUa ghU[
	a ]h <sup>·</sup> Zf]gW\Yb	
	DfcXi _hYb j ca ' <cz'< td=""><td></td></cz'<>	
6]YfZYgh	:Y]Yfb'G]Y'a]h'XYb	GYdhYa VYf
	9]b\Y]a ]gW\Yb'i bX	
	[Yb]Y»Yb <sup>·</sup> G]Y	
	j YfgWX]YXYbY	
	6]YfgcfhYb"	
5dZY`ZYgh	8 ]Y 'V Y ghY b '5 d ZY `!	C_hcVYf
	ibX°CVghdfcXi_hY	
	XYfFY[]cb"	

5VgWX`]Y»YbX`]gh'@UbXgVYf['Ua'@YWX`b]WXh'bi f'ZØf'gY]bY\\]ghcf]gWXY`5`hghUXh'VY\_Ubbhž'gcbXYfb'Ui WX'ZØf'gY]bY'fY]WX\U`h][Y\_i`]bUf]gWXY'GnYbYž'X]Y'j cb'\Yfn\UZhYb'; Yf]WXhYb'V]g'\]b'nigØ»Yb'?Ògh`]WX\_Y]hYb'fY]WXh"'9[U`ž'cV'G]Y']b'Y]bYa'hfUX]h]cbY``YbK]fhg\Ui g'gdY]gYbž']bYa'a cXYfbYb'7UZÅ'fY`UI Yb'cXYf'Ub

Y]bYa 'XYf'j ]Y`Yb'J YfUbghU`hi b[ Yb'hY]`bY\a Yb' 'X]Y'GhUXh'V]YhYh nU\`fY]WXY'A Ò[`]WX\_Y]hYbž'i a 'X]Y'VUmYf]gWXY'?ØWXY']b'j c``Yb NØ[ Yb'ni '[ Yb]Y» Yb"

# 5\_h]j ]a ; fØbYb. Ci hXccf!5VYbhYi Yf fi bX i a 'XYb'@YWX

9]b VYgcbXYfg VY`]YVhYg N]Y`']gh'XYf'@YW k Y[ žY]b 'hfUi a \UZhYf K UbXYfk Y[ ž'XYf'g]W 'ØVYf'Yhk U'%) '?]`ca YhYf'YfghfYW\_h'i bX Ybh`Ub[ 'XYg'@YW Zi ggYg'j cb 'XYf'Ei Y``Y']b 'XYb '5`dYb 'V]g'ni f A ØbXi b[ ']b 'XYb '8 cbUi Zi gg 'ZØ\fh"'9]b '5VgW b]hh'X]YgYg 'K Y[ Yg ZØ\fh'X]fY\_h'Xi fW '@UbXgVYf[ 'i bX'V]YhYh'Y]bY 'k i bXYfVUfY A Ò[ `]WX\_Y]hž'X]Y 'bUhØf`]W Y 'GW Òb\Y]h'XYf'I a [ YVi b[ 'ni Yf\_i bXYb"'8]Y 'K UbXYfi b[ '\_Ubb'gck c\``]b 'HU[ YgYhUddYb 'U`g Ui W 'U`g'a Y\fhÀ[ ][ Y 'Hci f'[ YbcggYb'k YfXYb"

 $: \emptyset f `F UX`]YV \setminus UVYf'[]Vh'Yg'nU \setminus `fY]WXY'F UXk Y[Yž'X]Y'Ybh`Ub[`XYfgUbZhYb'<\emptyset[Y``ibX': Y`XYf'Z\O\fYb''8]Y'\@YWX!F UXfcihY']gh'Y]bYVYgcbXYfg'VY`]YVhY'GhfYW_YŽ'X]Y'a]h']\fYb'[ih'Uig[YVUihYbKY[Yb'ibX'a]b]aU`Ya'<Ò\YbibhYfgWX]YX']XYU``Z\Of': Ua]`]Yb'ibX': fY]nY]hfUX`Yf'[YY][bYh']gh'''@Y]\Yb'G]Y'g]WX'Y]b': U\ffUX']b'Y]bYaXYf'Òfh`]WXYb'JYf`Y]\ghUh]cbYb'cXYf'Vf]b[Yb'G]Y'\=\f'Y][YbYg'FUXa]h'ibX'[Yb]Y\ghUh]cbYb'cXYf'Vf]b[Yb'G]Y'\=\f'Y][YbYg'FUXa]h'ibX'[Yb]Y\ghUh]cbYb'CXYf'Vf]b[Yb'G]Y'\Yff`]WXY$ 

8]Y'l a [YVi b['j cb'@UbXgVYf['Ua'@YWX']gh'Ui WX'Y]b'DUfUX]Yg'ZØf'K UggYfgdcfh!9bh\i g]UghYb"'8Yf'@YWX'`ÀXh'ni '5\_h]j ]hÀhYb'k]Y?Ubi ZU\fYbž'?U'U\_ZU\fYb'i bX'GhUbX!I d!DUXX`]b['Y]b"'8]Y'gUbZhYbGhfÒa i b[Yb'i bX'fi \][Yb'5VgWXb]hhY'XYg': `i ggYg'V]YhYb

5bZÀb[Yfb'gck]Y'YfZU\fYbYb'DUXX`Yfb']XYU`Y'6YX]b[ib[Yb"AY\fYfY'5bV]YhYf'Ub'XYb'IZYfb'XYg'@YWXg'V]YhYb'[YZØ\fhYHcifYb'ibX'A]YhaÒ[`]WX\_Y]hYb'Ubž'gcXUgg'YXYf'X]Y'; Yk ÀggYf[Yb]Y»Yb'\_Ubb"

 $: \varnothing f`5VYbhYi Yf`i gh][Y`V]YhYh`X]Y`FY[]cb`Ui W\`5Wh]cb!GdcfhUfhYbUb.``9f`YVYb`G]Y`X]Y`: fYYW]aV]b[!K ÅbXY`cXYf`Yf_i bXYb`G]Y`X]Y 5i g`Ài ZYf`XYf`5`dYb`a]h`Y]bYa`[YZ\@\fhYb`6Yf[ghY][Yf`cXYf?`YhhYf_i fg"`8]Y`bU\Y[Y`Y[YbYb`6Yf[Y`Yfa Ò[`]W\Yb`gck c\`Y]bZUW\Y`U`g`Ui W\`Ubgdfi W\gj c``YfY`?`YhhYffci hYbž`X]Y`]XYU``Z\@fGdcfhVY[Y]ghYfhY`g]bX"$ 

5_h]j ]hÀhYb	6YgWxfY]Vib[	; YY][bYhZØf
K UbXYfb	@YWXkY[ i bX	: Ua ]`]Ybž
	nU\`fY]W\Y	K UbXYfZfYi bXY
	FibXk UbXYfk Y[Y	
FUXZU\fYb	5bgWX`i gg`Ub`XYb	: fY]nY]hfUX`Yfž
	@YWX!FUXkY[	5bZÀb[Yf
K UggYfgdcfh	?Ubi ž <sup>·</sup> ?U <sup>·</sup> U_ž <sup>·</sup> GhUbX!	K UggYfgdcfhVY[Y]gh
	l d!DUXX`]b[	YfhY
?`YhhYfb	: fYYW]a V]b[!	5XfYbU`]b!≯b_]Yg
	5b`U[Yb'ibX'U`d]bY	
	?`YhhYfghY][Y	

\_`UfYb`<]a a Y`ži bX`]a 'K ]bhYf`\_ÒbbYb`G]Y`X]Y`j YfgW\bY]hYb`HfU]`g ZØf`K ]bhYfk UbXYfi b[Yb`cXYf`GW\bYYgW\i\k UbXYfi b[Yb`bi hnYb"

### ?ibghibX'?i`hif.'AigYYbibX JYfUbghU`hib[Yb'YbhXYW\_Yb

@UbXgVYf[ 'Ua '@YW\']gh'b]W\h'bi f'ZØf'gY]bY'a U`Yf]gW\Y'5`hghUXh VY\_Ubbhž'gcbXYfb'Ui W\'ZØf'gY]b'fY]W\\U`h][ Yg'\_i `hi fY``Yg 5b[ YVch"'8]Y'GhUXh'V]YhYh'Y]bY'J]Y`nU\`'j cb'Ai gYYbž'X]Y'g]W\'a ]h XYf'; YgW\]W\hY'i bX'?i bgh'XYf'FY[]cb'VYZUggYbž'gck]Y gdUbbYbXY'JYfUbghU`hi b[Ybž'X]Y'XUg'[UbnY'\\\f'ØVYf ghUhhZ]bXYb"'@UggYb'G]Y'i bg'Y]b][Y'XYf'VYXYi hYbXghYb'\_i `hi fY``Yb <][\`][\hg'Yf\_i bXYb''

9]b'a i gh!j ]g]h'ZØf'YXYb'?i bgh`]YV\UVYf']gh'XUg'GhUXha i gYi a @UbXgVYf["'<]Yf'YfZU\fYb'6Ygi W\Yf'U``Yg'ØVYf'X]Y'; YgW\]W\hY @UbXgVYf[gž'j cb'XYf'6YXYi hi b['XYf'GhUXh']a 'A]hhY`U`hYf'V]g'ni ]\fYf'Fc``Y']b'XYf'BYi nY]h''8]Y'5i gghY``i b[Yb'g]bX']bZcfa Uh]j ži bXX]Y']bhYfU\_h]j Yb'9`Ya YbhY'a UW\Yb'Yg'ni 'Y]bYa '9f`YVb]g'ZØf'X]Y [UbnY': Ua]`]Y''6YgcbXYfg'ZUgn]b]YfYbX'g]bX'X]Y'GUa a`i b[Yb'j cb; Ya À`XYb'i bX'5fhYZU\_hYbž'X]Y'XUg'@YVYb']b'@UbXgVYf['ØVYf'X]Y \\J\f\i bXYfhY'\]bk Y[']``i ghf]YfYb''

9]b k Y]hYfYg < ][ \`][ \h']gh'XUg'5i [ i gh]bYfa i gYi a ž'XUg'g]W\`]b Y]bYa \\]ghcf]gW\Yb'6Ui k Yf\_'VYZ]bXYh"'9g'nY][ h'Y]bY VYY]bXfi W\_YbXY'GUa a `i b[ 'j cb'?'i bghk Yf\_Ybž'X]Y'j cb'XYf'; ch]\_ V]g'ni f'A cXYfbY'fY]W\Yb"'8]Y'fY[ Y`a À» ][ Yb K YW\\gY`Ui gghY``i b[ Yb'V]YhYb']a a Yf'k ]YXYf'bYi Y'DYfgdY\_h]j Yb Ui Z'X]Y'?'i bgh[ YgW\]W\hY'i bX``UXYb'XUni 'Y]bž'g]W\'a ]h'H\Ya Yb Ui gY]bUbXYfni gYhnYbž'X]Y'cZh'ni a 'BUW\XYb\_Yb'UbfY[ Yb"

B]Wkhini ij Yf[ YggYbi]ghiXUgi: fUbn]g\_UbYf!A i gYi a žiXUgiX]Y 6Ygi WkYfi]biX]YiK YihiXYfiA ObWkYii bXiXYfYbi9]bZii ggiUi ZiXYb 5``hU[i]bi@UbXgVYf[iYbhZØ\fh"8]YgYgiA i gYi a i\UhigY]bYbi: c\_i g Ui ZiXYfi? `cghYf\_i `hi fii bXiXYbi\]ghcf]gWkYbiK YfhYbžiX]YiXUg @YVYbi]biXYfiFY[]cbi[YdfÀ[hi\UVYb"9gi]ghiY]bYi]bhYfYggUbhYii bXiY\ffY]WkYi9fZU\fi b[žiX]Yi9]bV`]W\_Yi]biX]YiGd]f]hi U`]hÀhii bXiXUg \UbXk Yf\_`]WkYi; YgWk]W\_iXYfi: fUbn]q\_UbYfiV]YhYh"

\*XYg'\*J\f'Z]bXYb']b'@UbXgVYf['Y]bY'J]Y`nU\``jcb'
?i`hi fj YfUbghU`hi b[Yb'ghUhhž'X]Y'9]b\Y]a ]gWXY'i bX'6Ygi WXYf
ni gUa a YbVf]b[Yb"'9]b'<][\`][\hi]a 'JYfUbghU`hi b[g\_U`YbXYf']gh
XUg' @UbXgVYf[Yf'GhUXhZYgh ž'XUg'a]h'Aig]\_ž'?i`]bUf]\_'i bX
?i bgh'Y]b'k U\fYg': Ygh'XYf'G]bbY'V]YhYh'''9g'n]Y\h'A YbgWXYb'Ui g
XYb'i a`]Y[YbXYb'FY[]cbYb'Ub'i bX'ZÒfXYfh'XYb'5i ghUi gWX
nk ]gWXYb'XYb'?i`hi fYb"'; YbUi gc'UhhfU\_h]j 'g]bX'X]Y'nU\`fY]WXYb'
?cbnYfhY'i bX'H\YUhYfUi ZZØ\fi b[Ybž'X]Y']b'XYb'\]ghcf]gWXYb
; YVÀi XYb'XYf'GhUXh'ghUhhZ]bXYb"

JYfUbghU`hi b[	8 Uhi a	Cfh
@UbXgVYf[Yf	GYdhYa VYf'fYÀ\f`]W\Ł	GhUXha]hhY
GhUX hZY gh		
?i bgh`]a `DUf_	AU] C_hcVYf	@YWXdUf_
	fb cbUh`]WXŁ	
:fØ\`]b[gYfkUW\Yb	AÀfn'fYÀ\f`]WXŁ	5`hY'?ØbghY
: Ygh]j U`		

: Øf'@]YV\UVYf'nY]h[YbÒgg]gW\Yf'?i bgh'g]bX'X]Y'C ZZYbYb'5hY`]YfgibX'?i bgha Àf\_hY'Y]b'UVgc`i hYg'Aigg"'G]Y'V]YhYb'X]Y
; Y`Y[Yb\Y]hž'a]h'? Øbgh`Yfb']b'?cbhU\_h'ni 'hfYhYbž']\fY'K Yf\_Y'ni
VYki bXYfb'i bX'j]Y``Y]W\h'gc[Uf'XUg'Y]b'cXYf'UbXYfY'GhØW\_'ni
Yfk YfVYbž'i a 'XUa]h'Y]b'i bj Yf[Ygg`]W\Yg'5bXYb\_Yb'Ub'X]Y'GhUXh
a]hni bY\aYb"

Ni `XYb` < ][ \`][ \hg`ZØf`?i `hi f]bhYfYgg]YfhY`nÀ\`h'Ui W\`X]Y` 
A i g]\_gW i `Y`@UbXgVYf[ ž`X]Y`fY[ Y`a À» ][ `?cbnYfhY`i bX 
a i g]\_U`]gW\Y`5i ZZØ\fi b[ Yb`cf[ Ub]g]Yfh" 8 Yf`GW\k Yfdi b\_h``]Y[ h \]Yf`Ui Z`XYf`: ÒfXYfi b[ '1\ b[ Yf`HU`YbhYž`X]Y`cZha U`g`X]Y`6Ø\bY`a ]h YfZU\fYbYb`A i g]\_Yfb`hY]`Yb"

8cW\"X]Y'\_i `hi fY``Y'GnYbY'YbXYh'b]W\\h'VY]'XYb'AigYYb'i bX

JYfUbghU`hi b[Yb"'\delta '@UbXgVYf['Z]bXYb'G]Y'Ui W\"nU\`fY]W\Y'

; U`Yf]Yb\"X]Y'K Yf\_Y'`c\_U`Yf'i bX']bhYfbUh]cbU`Yf'?\"Øbgh`Yf

df\"AgYbh]YfYb"'8]YgY'; U`Yf]Yb'i bhYfgh\"ØhnYb'c\"Zh''\hb[Y'HU`YbhY'i bX\"V]YhYb'gc'Y]bY'D`Uhh\"Zcfa 'Z\"Øf'bYi Y'\_fYUh]j Y'Gh]a a Yb"'8Ug'a UW\\h\
XYb'6Ygi W\"X]YgYf'CfhY'VYgcbXYfg'gdUbbYbX'i bX'hf\"A[h'ni f\"YVYbX][Yb'?i bghgnYbY'XYf'GhUXh'VY]"

GWX`]Y»`]WX`]gh'Yg`k ]WXh][ `ni `Yfk À\bYbž'XUgg`j ]Y`Y`X]YgYf
\_i `hi fY``Yb`9f`YVb]ggY`i bX`J YfUbghU`hi b[ Yb`b]WXh'bi f`ZØf
9fk UWXgYbY`[ YY][ bYh'g]bXž'gcbXYfb`Ui WX`gdYn]Y``Y`Dfc[ fUa a Y
ZØf`?]bXYf`i bX`: Ua ]`]Yb`UbV]YhYb"`Gc`k ]fX`Y]b`6Ygi WX`]b
@UbXgVYf[ `ZØf`A YbgWXYb`YXYb`5`hYfg`ni `Y]bYa `VYfY]WXYfbXYb
9f`YVb]q"

#### ; Y\Y]a h]ddg ZØf i bj Yf[ Ygg`]WXY : chcgdchg

@UbXgVYf[ 'Ua '@YWX'V]YhYhY]bY'J]Y`nU\`jcb'UhYa VYfUi VYbXYb: chcgdchgž'X]Y'gck c\`'X]Y'\]ghcf]gWXY'GWX\Ob\Y]h'XYf'GhUXh'U\`gUi WX']\fY'bUhØf`]WXY'I a [YVi b[ 'ni f'; Y`hi b[ 'Vf]b[ Yb"'CV'Xi 'Y]b 5a UhYi fZchc[ fUZ'cXYf'Y]b'YfZU\fYbYf'DfcZ]'V]ghž'X]Y'GhUXh'\Uh'ZØf YXYb'Yhk Ug'ni 'V]YhYb"'<]Yf'g]bX'Y]b][Y'; Y\Y]a h]ddg'ZØf'X]Y VYghYb': chcgdchgž'X]Y'Xi 'b]WXh'j YfdUggYb'gc``hYgh

#### %" 8]Y GhUXha Ui Yf i bX XYf GhUXh[fUVYb

8]Y'[i h'Yf\U`hYbYb'HY]`Y'XYf'GhUXha Ui Yf'i bX'XYf'Ub[fYbnYbXY'GhUXh[fUVYb'V]YhYb'b]W\h'bi f'Y]bYb'\Yfj cffU[YbXYb'6`]W\_'Ui ZX]Y'5fW\]hY\_hi fž'gcbXYfb'Ui W\'Ui Z'X]Y'i a `]Y[YbXY'BUhi f"'9]b GdUn]Yf[Ub['Ybh`Ub['XYf'A Ui Yf'VY]'GcbbYbUi Z[Ub['cXYf GcbbYbi bhYf[Ub['\_Ubb'gdY\_hU\_i `AfY'GW\UhhYb'i bX'@]W\hgd]Y`YYfnYi [Yb"

#### &" < ]ghc f]gWX Y 5 hghUXh

8]Y'5`hghUXh'j cb'@UbXgVYf[']gh'Y]b'k U\fYg'\k Y`a ]h'Y]bYf': Ø``Y
Ub'Vi bhYb'<Ài gYfb'i bX'j Yfk ]b\_Y`hYb'; UggYb"'8Yf'A Uf\_hd`Uhn'a ]h
XYa 'VYY]bXfi W\_YbXYb'BYi Yb'F Uh\ Ui g']gh'VYgcbXYfg'Zchc[Ybž
k À\fYbX'X]Y'a U`Yf]gWXYb'9W\_Yb'i bX'8YhU]`g'k ]Y': YbghYf`ÀXYb
i bX'6`i a Ybj UgYb']b'XYb'\_`Y]bYb'; UggYb'YVYbZU``g'X]Y'@]bgY
Ubn]Y\Yb"

#### ' "'@YWXiZYfibX: `igg`UbXgWXUZh

8 Ugʻl ZYfʻXYgʻ@Y WX gʻV]YhYhʻb]WXhʻbi fʻY]bYʻk i bXYfVUfYʻ?i `]ggYʻZØf YbhgdUbbYbXYʻGdUn]Yf[ Àb[ YžʻgcbXYfbʻUi WXʻnU\`fY]WXY A Ò[ `]WX\_Y]hYbʻZØfʻVYY]bXfi W\_YbXYʻ: chcgʻʻ6YgcbXYfg Ya dZY\`Ybgk Yfhʻg]bXʻ5i ZbU\a Ybʻj cbʻXYfʻ@Y WX k Y\fʻcXYfʻXYgʻ @Y WX dUf\_gž'k cʻXi ʻX]Yʻ?ca V]bUh]cbʻUi gʻK UggYfžʻl ZYfj Y[ YhUh]cb i bX`XYfʻGhUXhʻdYfZY\_hʻY]bZUb[ Ybʻ\_Ubbqhʻ

#### ("8 Ug K Y``Yb V UX i b X X]Y U`hY $6 f \emptyset W_Y$

8]Y'K UggYfZ'ÀW Y'XYg'K Y``YbVUXYg'gd]Y[Y`h'X]Y'i a `]Y[YbXYb6Yf[Y'i bX'X]Y'\]ghcf]gW Y'5`hY'6fØW\_Y'k]XYf"'8]Yg']gh'VYgcbXYfgY]bXfi W\_gj c```]b'XYb'ZfØ\Yb'A cf[Ybghi bXYbž'k Ybb'XYf'BYVY` ØVYf'XYa 'K UggYf'gW k YVh"'9]b'ZUgn]b]YfYbXYg': chca ch]j ž'XUg'X]YFi \Y'XYf'BUhi f'i bX'X]Y'i fVUbY'l a [YVi b['a]hY]bUbXYf j YfV]bXYh"

#### )"?ibghUa K Y[YgfUbX

"VYf`X]Y`GhUXhij YfhY]`h`Z]bXYgh`Xi`nU\`fY]W\Y` ?i bgh]bghU``Uh]cbYb`i bX`G\_i `dhi fYbž`X]Y`b]W\h`bi f`X]Y ⇒bYbghUXhij YfgW\ÒbYfbž`gcbXYfb`Ui W\`[fc»Ufh][Y : chca Ò[`]W\\_Y]hYb`V]YhYb"`JYfk YbXY`X]YgY`?i bghk Yf\_Y`U`g FU\a Yb`ZØf`XY]bY`DcfhfÀhg`cXYf`U`g`]bhYfYggUbhY`DYfgdY\_h]j Y`ZØf GhUXh`UbXgW\UZhYb"

#### \* "8]Y Gh]Zhg\_]fWXY i bX XUg DZY[Yf\Ui g

8]Y'Gh]Zhg\_]fWX Y'V]YhYh'Y]bY'VYY]bXfi W\_YbXY': UggUXY'i bX'Y]bYbdfÀWXh][Yb'\Dz\Y[Yf\Ui gY]bYbX'XUg'\]ghcf]gWXY'DZ\Y[Yf\Ui gY]bY'gWX\ObY'?i\]ggY'Z\Ofgh]a a i b[gj c\\Y': chcg'UV[]Vh"8]Y?ca V]bUh]cb'Ui g'5fWX]hY\_hi f'i bX'I a [YVi b[']gh'VYgcbXYfgUVYbXg'VYa Yf\_Ybgk Yfhz'k Ybb'X]Y'; YVÀi XY'k i bXYfVUfVYYi WXhYh'q]bX"

#### +"Nk Y]!6fØW\_Yb!Di b\_h

9]b'k Yb][Yf'VY\_UbbhYfž'UVYf'UhYa VYfUi VYbXYf': chcgdch']gh'XYf'
Nk Y]!6fØW\_Yb!Di b\_hž'j cb'XYa 'Ui g'Xi 'gck c\`'X]Y'5`hY'6fØW\_Y
U`g'Ui WX'X]Y'BYi Y'6fØW\_Y']b'Y]bYa '6]`X'ZYgh\U`hYb'\_Ubbgh''8]Y
5i gg]WXh'Ui Z'XYb': `i gg'i bX'X]Y'GhUXh'X]Ybh'U`g'dYfZY\_hYf
<]bhYf[fi bX'ni 'YXYf'HU[YgnY]h''

#### , "; Y\Y]a Y; UggYb i bX < Ò\`Yb

#### - " 6chUb]gWXYf; UfhYb @UbXgVYf[

8 Yf'6 c hUb]gWX Y'; UfhY b']gh'Y]bY'Ui g[YnY]WX bYhY'K U\``ZØf B Uhi fZchc[fUZ]Yža]h'Y]bYf'J]Y`nU\``j c b'DZ`UbnYbUfhYb'i bX \_bU``][Yb': UfVYb']a 'Gca a Yf"'8]Y'Fi\Y'i bX'X]Y'J]Y`ZU`h'XYf': `cfU a UWXYb'Yg'ni 'Y]bYa 'dYfZY\_hYb'Cfh'ZØf'\_fYUh]j Y'5i ZbU\a Yb"

#### 6 Ygcb X Y f Y H]d d g ZØf: chc[fUZYb

<]Yf'g]bX'Y]b][Y'H]ddgž'i a 'XUg'6YghY'Ui g'XY]bYf': chc[fUZ]Y']b
@UbXgVYf['Ua'@YWX'\YfUi gni \c`Yb.</pre>

- : fØ\ 'Ui ZghY\ Yb. '8]Y 'VYghYb'@]W\ hj Yf\À`hb]ggY'[]Vh'Yg cZh'Ua 'ZfØ\Yb'A cf[Yb'cXYf'k À\fYbX'XYf'[c`XYbYb Ghi bXY'j cf'GcbbYbi bhYf[Ub["
- 9I dYf]a Ybh]YfY a ]h DYfgdY\_h]j Yb. DfcV]YfY

- j YfgWX]YXYbY'6`]W\_k ]b\_Y``Ui gž'i a 'Y]bn][ Ufh][ Y ?ca dcg]h]cbYb'ni 'YfghY``Yb"
- 6Ygi WX Y'k À\fYbX'XYf'9j Ybhg. '8]Y'GhUXh'V]YhYh
  nU\`fY]WXY'JYfUbghU`hi b[Ybž'VY]'XYbYb'Xi '`YVYbX][Y
  : chcg'j cb': Ygh]j U`gž'A Àf\_hYb'i bX': Y]Yf`]WX\_Y]hYb'a UWXYb
  \_Ubbgh"

K Ybb Xi 'Ui Z'XYf'\*J[ X'bUW\ Y]bn][ Ufh][ Yb '5i ZbU\a Yb 'V]ghž``UggYbg]W\ ']b '@UbXgVYf[ 'Ua '@YW\ 'g]W\Yf`]W\ 'i bj Yf[ Ygg`]W\ Y GW\ bUddgW\ ØggY 'a UW\Yb"'D`UbY 'XY]bYb '6Ygi W\ '[ i h'i bX '\U`hY XY]bY '? Ua YfU 'VYfY]hž'XYbb '\]Yf'k UfhYh'Y]bY ': Ø``Y'j cb A Ò[ `]W\\_Y]hYb 'XUfUi Zž'j cb 'X]f'YbhXYW\_h'ni 'k YfXYb°

## 6Yei Ya Y 5bfY]gY i bX , VYfbUW hi b[ ga Ò[ `]W \_Y]hYb ]b @UbXgVYf[

8]Y 5bfY]gY bUW @UbXgVYf[ 'Ua @YW [ YghU`hYhig]W 'Ài » Yfgh i b\_ca d`]n]YfhžY[ U`cV'G]Y a ]h'XYa '5i hcžXYa 'Ni [ 'cXYf'XYa '6i g UbfY]gYb a ÒW hYb" 8]Y 'W Ufa UbhY 'GhUXhž'X]Y 'Ua 'I ZYf'XYg'@YW g `]Y[ hž']gh'b]W hibi f'Ui Z[ fi bX']\fYf'\]ghcf]gW Yb '5`hghUXh'Y]bYb 6Ygi W 'k Yfhž'gcbXYfb'Ui W 'Xi fW ']\fY'dfU\_h]gW Y '9ffY]W VUf\_Y]h ZØf'FY]gYbXY" < ]Yf'g]bX'Y]b][ Y'Cdh]cbYbži a 'VYei Ya 'bUW @UbXgVYf[ 'ni '[ Y`Ub[ Yb.

- A ]h X Y a '5 i hc. '@Ub X g V Y f [ ']gh X i f W X X ] Y '5 i hc V U \ b '5 \* j cb 'A Øb W X Y b 'i b X '@]b X U i '[ i h 'Ub [ Y V i b X Y b " 5 i g 'A Øb W X Y b Y f f Y ] W X Y b 'G] Y 'X] Y 'GhU X h '] b 'Y h k U ') \$ 'A ] b i h Y b ž 'k À \ f Y b X 'X] Y 5 b Z U \ f h j cb '5 i [ g V i f [ 'b i f 'W] f W U ' \$ 'A ] b i h Y b '] b '5 b g d f i W b ] a a h " 5 i Z X Y b '[ i h 'U i g [ Y g W ] `X Y f h Y b 'Gh f U » Y b '\_ Òb b Y b 'G] Y X ] Y 'g W Òb Y 'V U m Y f ] g W Y '@Ub X g W U Z h '[ Y b] Y » Y b "
- A ]h'XYa 'Ni [.'@UbXgVYf['Ua '@YWX'\Uh'Y]bYb'Y][YbYb 6U\b\cZžXYf'fY[Y`a À»]['j cb'FY[]cbU`nØ[Yb'Ui g A ØbWXYbž'5i [gVi f['i bX'; Y`hYbXcfZ'Ub[YZU\fYb'k]fX"'8]Y Ni [ZU\fh'j cb'A ØbWXYb'XUi Yfh'Yhk U'\* \$'A ]bi hYb"'8]Yg']gh Y]bY'ghfYggZfY]Y'A Ò[`]WX\_Y]hž'X]Y'GhUXh'ni 'YffY]WXYb'i bX X]Y'k i bXYfgWX ÒbY'@UbXgWX UZh'i bhYfk Y[g'ni 'VYk i bXYfb"
- A ]h'XYa '6i g. '9g'[]Vh'Ui W\ 'fY[]cbU`Y'6i gj YfV]bXi b[Ybž X]Y'@UbXgVYf['a ]h'i a `]Y[YbXYb'GhÀXhYb'i bX'8 ÒfZYfb

#### j YfV]bXYb"'8]YgY'Cdh]cb'\_Ubb'VYgcbXYfg'ZØf HU[YgUi gZØ[`Yf'UhhfU\_h]j 'gY]b"

GcVU`X'G]Y']b'@UbXgVYf['Ub[Y\_ca a Yb'g]bXž'ghY\Yb'\bYb'Y]bY J]Y`nU\`j cb', VYfbUW\ hi b[ ga O[`]W\\_Y]hYb'ni f'5i gk U\`ž'X]Y VXYb'FY]gYbXYb'ni Zf]YXYbghY``Yb'XOfZhYb''J cb'hfUX]h]cbY``Yb VChY`g'V]g'\]b'ni '[Ya Oh`]W\Yb'DYbg]cbYb'i bX'a cXYfbYb VYf]Ybk c\bi b[Yb']gh'VOf'YXYb'; YgW\a U\V\_i bX'YXYg'6i X[Yh Yhk Ug'XUVY]''

#### < chY`cdh]cbYb

< ]Yf'g]bX'Y]b][Y'Ya dZc\`YbY'<chY`g']b'@UbXgVYf['Ua'@YW\.

<chy`bua th="" y<=""><th>?UhY[cf]Y</th><th>6YgcbXYf\Y]hYb</th></chy`bua>	?UhY[cf]Y	6YgcbXYf\Y]hYb
< chY``A Ø``Yf		: Ua ]`]Yb[ Y <i>Z</i> Ø\fhž
		hfUX]h]cbY``Yg
		VUmYf]gW\Yg
		5a V]YbhYž
		FYghUi fUbh'j cf'Cfh
@Y W\ d Uf_ ' < c hY `		A cXYfbY N]a a Yfž
		K Y``bYggVYfY]W\ž
		[ihY <sup>.</sup> 5bV]bXib[ <sup>.</sup> Ub
		X]Y'5`hghUXh
DYbg]cbini fiDcgh		; Ya Øh`]W\Y
		5ha cgd\ÀfYž
		dfY]gk Yfhž'X]fY_h']b
		XYf'GhUXha]hhY
< ][ \`UbXYf' <chy`< td=""><td></td><td>Fi\][Y'@U[Yž</td></chy`<>		Fi\][Y'@U[Yž
		gh]`j c``Yg <sup>.</sup> 8 Yg][ bž
		]XYU`'ZØf
		; YgWXÀZhgfY]gYbXY

#### : Yf]Ybk c\bib[Yb'i bX'5dUfha Ybhg

: Øf'FY]gYbXYž'X]Y'a Y\f'D`Uhn'cXYf'Y]bY'GY`Vghj Yfgcf[ Yf!Cdh]cb
VYj cfni [ Ybž'[ ]Vh'Yg'nU\`fY]W\Y': Yf]Ybk c\bi b[ Yb'i bX
5dUfha Ybhg"'8]YgY'g]bX'cZh']b'XYf'5`hghUXh'cXYf']b'XYf'BÀ\Y'XYg

@YW\g`Ub[Yg]YXY`hž'k Ug`\bYb`Yfa  $O[`]W\hž'X]Y`GhUXh`]b`j c``YbNØ[Yb`ni`[Yb]Y``Yb"$ 

K YVgY]hYb'k]Y'5]fVbV'cXYf'6cc\_]b["Wca 'V]YhYb'Y]bY'[i hY 5i gk U\`'Ub'I bhYf\_ØbZhYbž'X]Y' $\Rightarrow$ fYb']bX]j ]Xi Y``Yb'6YXØfZb]ggYb [YfYW\h'k YfXYb"'G]Y'\_ObbYb'nk ]gW\Yb'gh]`j c``Yb'@cZh! K c\bi b[Ybž'W\Ufa UbhYb'5`hVUi k c\bi b[Yb'cXYf'a cXYfbYb BYi VUi hYb'k A\`Yb"

#### 7Ua d]b[ i bX BUhi fYf`YVb]ggY

: Øf B Uhi f`]YV\UVYf'[]Vh'Yg']b 'XYf'I a [YVi b['j cb'@UbXgVYf['Ui W. A Ò[`]W\\_Y]hYb'ni a '7Ua d]b["'8Yf'bU\Y[Y`Y[YbY'@YW\'V]YhYh k i bXYfgW\ÒbY'D`ÀhnY'ni a '7Ua dYbž'K UbXYfb'i bX'FUXZU\fYb" 7Ua d]b[d`ÀhnY'g]bX'gU]gcbU`'[YÒZZbYhi bX'V]YhYb'cZh'Y]bY'hc``Y; Y`Y[Yb\Y]hž'X]Y'B Uhi f'\Ui hbU\'ni 'Yf`YVYb"

#### H]ddg ZØf X]Y VYghYb , VYfbUWXhi b[Yb]

K Ybb'G]Y'@UbXgVYf['Ua'@YW\'VYgi W\Yb'a ÒW\hYbž'VYUW\hYb'G]Y Zc`[YbXY'H]ddg.

- :  $f\emptyset \setminus nY]h][ "Vi WX Yb."; YfUXY"]b "XYf" < cW.gU]gcb"_ObbYb X]Y "VYghYb" < chY`gʻgWXbY```Ui g[YVi WXhʻgY]b""9]bY ZfØ\nY]h][Y'6i WXi b['g]WXYfh" <math>\Rightarrow$  bYb'X]Y "VYghYb'DfY]gY'i bX I bhYf ØbZhY"
- JYf[`Y]WX Yb 'G]Y '5b[YVchY. 'Bi hnYb'G]Y
   6i WXi b[gd`UhhZcfa Ybž'i a 'X]Y 'VYghYb'DfY]gY'ni
  j Yf[`Y]WX Yb "'C Zha U`g'[]Vh'Yg'Ui WX 'gdYn]Y``Y'5b[YVchY'ZØf
  `Ab[YfY'5i ZYbh\U`hY"
- @U[Y'VYUWX hYb.', VYfbUWX hYb'G]Y']XYU`Yfk Y]gY']b'XYf
   5`hghUXh'cXYf']b'XYfYb'BÀ\Yž'i a 'X]Y'GY\Ybgk ØfX][\_Y]hYb
   VYei Ya 'ni': i » 'Yf\_i bXYb'ni'\_ObbYb"

A ]h'X]YgYb'Cdh]cbYb'ni f'5bfY]gY'i bX'Y]bYf'J ]Y`nU\``j cb , VYfbUW\hi b[ ga  $\check{O}[`]WX_Y]hYb']gh'@UbXgVYf['Ua '@YW\'Y]b']XYU`Yf 5i g[ Ub[ gdi b_h'ZØf'=\fYb'6Ygi W\']b'XYf'VUmYf]gW\Yb'FY[ ]cb" ; Yb]Y»Yb'G]Y'X]Y'k i bXYfgW\<math>\check{O}$ bY'5`hghUXhž'X]Y'VYY]bXfi W\_YbXY

8 Y hU]`g

 $6\,Y\,gi\,\,WX\,Y\,b\,\,{}^{\scriptscriptstyle T}G\,]Y\,{}^{\scriptscriptstyle T}i\,\,b\,g\,{}^{\scriptscriptstyle T}Ui\,\,Z.\,\,{}^{\scriptscriptstyle T}Y\,]b\,Y\,!\,f\,Y\,]g\,Y\,{}^{\scriptscriptstyle T}X\,Y$