

9fVYbghfY]h'i a 'A Ø`Yf!8fc[ Yf]Ya ]``]cbYb.  
; Yf]W\ h'j Yf\_ØbXYh'i fhY]`

⇒ a '9fVghfY]h'i a '9fk ]b'A Ø`Yfg'9fVY'k ]fX'Ua 'A cbhU[ 'XUg  
l fhY]'Yfk UfhYh"?`À[ Yf'g]bX'X]Y'UXcdh]YfhYb'? ]bXYf'XYg  
l bhYfbY\ a Yfg"

9fVgW\ UZhghfY]h'k ]fZh': fU[ Yb'ni f  
: Ua ]`]YbXmbUa ]\_`Ui Z

8Yf'VYj cfghY\YbXY'l fhY]`ggdfi W\ ]a '9fVghfY]h'fi bX'i a 'XYb  
8fc[ Yf]Y!l bhYfbY\ a Yf'9fk ]b'A Ø`Yf'i bX'gY]bY': fUi '5b]hU'\ Uh  
b]W\ h'bi f'fYW\ h]W\ Yž'gcbXYfb'Ui W\ 'gcn]U'Y'F'Y'Yj Ubn"5a 'A cbhU[  
i a '- "\$\$'l \f'k ]fX'XUg'@UbX[ Yf]W\ h'i `a 'YbhgW\ Y]XYbž'c'V'X]Y  
5bgdfØW\ Y'XYf'XfY]'À'hYfYb'5Xcdh]j \_]bXYf'Ui Z]\fYb'DZ]W\ h'hY]'`XYg  
9fVYg'VYfYW\ h][ h'g]bX'cXYf'b]W\ h"

< ]bhYf[ fi bX'XYg'F YW\ hgghfY]hg

⇒ a 'NYbhfi a 'XYg'J YfZU\ fYbg'ghY\ h'Y]b'J YfhfU[ ž'a ]h'XYa 'X]Y'XfY]  
Yfk UW\ gYbYb'5Xcdh]j \_]bXYf'Ui Z]\fYb'DZ]W\ h'hY]'`XYg'9fVYg  
j Yfn]W\ h'h'\ UVYb"8]YgYf'J Yfn]W\ h'k ]fX'bi b'j cb'XYb  
5Xcdh]j \_]bXYfbž'X]Y'fYW\ h]W\ Y'GW\ f]h'hY'Y]b[ Y'Y]hYh'\ UVYbž  
Ub[ YZcW\ hYb"8]Yg'ZØ\ fh'ni 'Yfbgh\ UZhYb': fU[ Yb'ØVYf'X]Y  
; Ø'h][ \_Y]h'XYg'J YfhfU[ Yg'i bX'X]Y': Ua ]`]YbghfY]h][ \_Y]hYbž'X]Y'Yf  
Ui g`ØgYb'\_Ubb"

; Yf]W\ h`]W\ Y'9]bgW\ Àhni b[

K À\ fYbX'XYf'YfghYb'J Yf\ UbX'i b[ 'ja 'A U]ghY`hY'XUg'@UbX[ Yf]W\ h  
l `a 'ZYghž'XUgg'X]Y'?`U[ Y'XYf'5Xcdh]j \_]bXYf'[ Yf]b[ Y

9fZc`[ gUi gg]Wk hYb` \ UVY" 8 Ug; Yf]Wk h` \ UhhY`ni` X]YgYa` NY]hdi b\_h  
VYfY]hg`Ub[ YXYi hYhž`XUgg`Yg`b]Wk h`XUj`cb`Ui`g[ Y`hž`XUgg`XYf`  
J YfhfU[ `b]Wk h][ `cXYf`VY`Y]X][ YbX`]gh" 8]Yg`k`]fZh`X]Y` : fU[ Y`Ui` Zž`k` ]Y  
[ Yf]Wk h]Wk` [ YgWk ØmhY` J YfY]bVUfi`b[ Yb` ]bbYf` \ U`V`j`cb` : Ua` ]`Yb  
XmbUa` ]gWk` [ YdfØZh`k` YfXYb` \_ØbbYb"

; YgY`gWk UZh`]Wk Y`i` bX`fYWk h`]Wk Y  
=> a`d` ]\_Uh]cbYb

8]Y`5i`gY]bUbXYfgYhni`b[ Yb`]a` `9fVY`j`cb`9fk`]b`A`Ø`Yf`  
j`YfXYi`h`]Wk Ybž`k`]Y`\_ca`d`Yi` `i`bX`Ya`ch]cbU`X]Y`H\Ya`Yb`XYf`  
9fVgWk UZhgfYWk hY`i`bX`ZUa` ]`]ÅfYb`6]bXi`b[ Yb`gY]b`\_ØbbYb" 8]Y  
=>YY`XYg`DZ]Wk hY]`gž`XYf`fYWk h]Wk`ZYgh[ Y`Y[ h`]ghž`gc`  
g]Wk YfghY`Ybž`XUgg`9fVYb`Y]bYb`VYgh]a`a`hYb`5bhY]`XYg`  
J Yfa`Ø[ Ybg`Yf` \ U`hYbž`i`b[ YUWk hYh`XYf`K`ØbgWk Y`XYg`9fV`UggYfg`  
8cWk`k`]Y`VYY]bZi`ggYb`J YfhfÅ[ Y`k`]Y`XYf` \ ]Yf`j`cf`]Y[ YbXY`X]Y  
6Yn]Y\i`b[ Yb`]bbYf` \ U`V`Y]bYf` : Ua` ]`]Y3

: Y` \ `YbXY`5bk`YgYb` \ Y]h`j`cb`9fk`]b`A`Ø`Yf`

9fk`]b`A`Ø`Yf`gY`Vgh`k`Uf`VY]a` `DfcnYggUi`ZhU`\_h`b]Wk h`Ub`k`YgYbXž`  
k`Ug`ni`gÅh`]Wk Y` : fU[ Yb`ni` `gY]bYf`Dcg]h]cb`i`bX`gY]bYf` ; Ygi`bX` \ Y]h  
Ui`Zk`]fZh` `9g`V`Y]Vh`i`b`\_Ufž`c`V`Yf`c`XYf`UbXYfY`6YhY]`][ hY`VY]`XYf`  
l`fhY]`gj`Yf`\_ØbXi`b[ `YfgWk Y]bYb`k`YfXYbž`XU`X]Yg`]a` `N]j` ]`dfcnYgg  
Y` \ Yf`i`bØV`]Wk`]gh" 8]Y`5bk`YgYb` \ Y]h`XYf` : Ua` ]`]Yba` ]h[ `]YXYf`  
\_ØbbhY`YXcWk`ni`f`?`Åfi`b[ `j`cb`9a`ch]cbYb`i`bX`  
6Yn]Y\i`b[ gdfcV`Ya`Uh]\_Yb`VY]hfU[ Yb"

: Un]h

8Yf` : U` `j`cb`9fk`]b`A`Ø`Yf`i`bX`XYf`9fVghfY]h`a` ]h`gY]bYb`  
5Xcdh]j`\_]bXYfb`]gh`Y]b`Y]bXfi`W\_gj`c`Yg`6Y]gd]Y`ZØf`X]Y`  
<YfUi`gZcfXYfi`b[ Ybž`X]Y`g]Wk`]b`ZUa` ]`]ÅfYb`9fVgWk UZhgfU[ Yb  
Yf[ YVYb"i`bUV` \ Åb[ ] [ `j`ca` `l`fhY]`k`]fX`Yfk`UfhYhž`XUgg`X]Y`  
8YVUhhYb`ØVYf`fYWk h]Wk Yž`gcn]U`Y`i`bX`Ya`ch]cbU`Y`5gdY`\_hY`j`cb`  
9fVgWk UZhYb`k`Y]hYf[ YZØ` \ fh`k`YfXYbž`k`Å` \ fYbX`X]Y`6YhY]`][ hYb`a` ]h`  
XYb` : c` [ Yb` ] \ fYf`9bhgWk Y]Xi`b[ Yb` `YVYb`a` ØggYb"

B 5;

8 YhU]g

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