

: YghbU\ a Y`Ua `6U\b\cZ. `A i hhYf`i bX
HcW\ hYf`a]h`< UZhVYZY\ ``]b : ØfghYbk U`XY

A i hhYf`i bX`HcW\ hYf`]b : ØfghYbk U`XY`k Y[Yb
? ØfdYfj Yf`Yhni b[`a]h`HcXYgZc`[Y`ZYgh[Ybca`a`Yb`
< UZhVYZY\ `Y`][bcf]Yfhž`< i bX`[Yg]W\Yfh"

⊕ : ØfghYbk U`XYž`Y]bYa`fi` \][Yb`Cfh`a]h`Y]bYa`hfUX]h]cbgfY]W\Yb
6U\b\cZž`k i fXY`X]Y` ; Ya`Y]bgW\UZh`Xi`fW\`X]Y` : YghbU\ a Y`nk`Y]Yf`
: fUi`Yb`YfgW\ØhhYfhž`X]Y`ni`j`cf`Xi`fW\`_f]a`]bY``Yg`J`Yf\`U`hYb`]b`X]Y`
GW\`U[nY]`Yb`[Yf]YhYb"9]b`6`]W`_Ui`ZX]Y`gcn]U`Yb`i`bX`fYW\h]W\Yb
⊖ d`_Uh]cbYb`X]YgYf`HUh"

% "5i [i gh&\$&(`i`a` `%+.`&&`l` \f: ØfghYbk U`XY

9]b`5fh]_Y`j`cb

⊗UW]a`9[[Yfg

8]Y`<]b hYf[fØbXY`XYf` : YghbU\ a Y

5a`ZfØ\Yb`8]YbghU[a`cf[Ybž`XYa` `%"5i [i gh&\$&(ž`k i fXYb
9]bgUm_f`ÄZhY`XYf`6i`bXYgdc`nY]`Ua` `6U\b\cZ]b : ØfghYbk U`XY`Ui`Z
Y]b`A i hhYf!HcW\hYf!8i`c`Ui`Za`Yf_gUa`ž`XUg`]a`Ni`gUa`a`Yb\Ub[
a`]h`Y]bYa`< UZhVYZY\ ``[Ygi`W\h`k i fXY"8]Y`VY]XYb : fUi`Ybž`Y]bY
``!`Ä\ f][Y`A i hhYf`i`bX`]`fY`" `!`Ä\ f][Y`HcW\hYfž`k`UfYb`VY]`Y]bYf
?`cbhfc``Y`[Y[Yb`&`&\$`l` \f`Ui`Z[Y[f]ZZYb`k`cfXYbž`U`g`g]Y`]`fY
6Yg]hnhØa`Yf`]b`j`]Yf`9]b`_Ui`Zgk`U[Yb`hfUb`gdc`fh]YfhYb`i`bX`Y]bYb
< i bX`XUVY]` \UhhYb"

8 Ug`J`YfVfYW\Yb`i`bX`gY]bY` : c`[Yb

⇒f': U'']gh'hfU[]gWk 'i bX'k]fZh: fU[Yb'ni 'J YfUbhk cfhi b['i bX
A YbgWk`]Wk_Y]h'Ui Z''a '5i [i gh'&\$&' 'k i fXYb'g]Y'j ca '@UbX[Yf]Wk h
C`XYbVi f['k Y[Yb'? ØfdYfj Yf`Yhni b['a]h'HcXYgZc`[Y'i bX
A]gg\UbX'i b['GWk i hnVYZc\`YbYf'ni `Y]bYf'; YgUa hghfUZY'j cb
gYWk g`>U\fyb'i bX'gYWk g`A cbUhYb'j Yfi fhY]'h''@Ui h
; Yf]Wk hgi bhYf`U[Yb`\UhYb'g]Y'g]Wk 'j b`XUg`@YVYb`Y]bYg
U`Y]bghY\YbXYbž'gWk k Yf`_fUb_Yb`*) !>A\ f][Yb`Y]b[YZØ[hi bXž
hfc hn`J c`a UWk hni f`DZY [Yž'b]Wk h`ZØf`]\ b[Ygcf[h''8]Y
I bhYf`Uggi b[Yb`ZØ\fhYb'ni `gY]bYa `HcX`Ui Z[fi bX'i bVY\UbXY`hYf
'fUb_\Y]hYbž'k Ug`X]Y`HfU[k Y]hY`]\fyg`J Yf\U`hYbg'j YfXYi h']Wk h"

8]Y `F YU_h]c b `XYf`6Y\ ØfXYb

B UWk `XYf': YghbU\ a Y'k i fXYb`X]Y': fUi Ybž'X]Y'ni j cf`X]Y
5i Zc fXYfi b[Yb'ni f`GhfU] c`ghfYU`i b['][bcf]Yfh`\UhYbž']b`Y]bY
> gh]nj c`ni [gUbghU`h'bUWk `6fUbXYbVi f['ØVYfghY`h''⇒f`<i bX
k i fXY`]b`X]Y`CV\i h`Y]bYf`6Y`Ub bhYb`[Y[YVYbž'k Ug`X]Y': fU[Y
Ui Zk]fZž'k]Y`cZiH]YfY`i bhYf`XYb'? cbgYe i YbnYb`a YbgWk`]Wk Yf
: Y\`Yf`Y]XYb`a ØggYb"

8]Y `6YXYi hi b[`ZØf`X]Y'; Ya Y]bgWk UZh

8]Y'; YgWk Y\ b]ggY`i a `XUg`A i hYf!HcWk hYf!8i c`\UVYb`]b
: ØfghYbk U`XY`ZØf`5i ZfY[i b[' [Ygcf[h''8]Y`6Øf[Yf`ghY`Yb`g]Wk `X]Y
: fU[Yž'k]Y`Yg`a Ø[`]Wk `k Ufž'XUgg`X]Y': fUi Yb`hfc hn`XYf`gWk k YfYb
J cfk ØfZY`k Y]hYf\]b`]b`XYf`² ZZYbh']Wk_Y]h`YVYb`_cb bhYb`"8]YgY
G]hi Uh]cb`k]fZh`Y]b`@]Wk h'Ui Z`X]Y`< YfUi gZc fXYfi b[Yb`XYf`gc n]U`Yb
'cb hfc`Y`i bX`X]Y`A Ø[`]Wk_Y]hYb`XYf`6Y\ ØfXYbž'XYfUfh][Y': A`Y`ni
j Yf\]bXYfb"

8 Ug`9fY][b]g`]gh'a Y\ f`U`g`bi f`Y]bY`c`_U`Y`? f]a]bU`[YgWk]Wk hY/Yg
VYfØ\fh`X]Y`[fi bX`Y[YbXYb': fU[Yb`ØVYf`CVXUWk`cg][_Y]hž
? f]a]bU`]h`h`i bX`X]Y`J YfUbhk cfhi b[ž'X]Y`k]f`ZØf`X]Y`GWk k ÅWk ghYb
]b`i bgYfYf'; YgY`gWk UZh`hfU[Yb`"8]Y`GWk]W`gU`Y`XYf`6Y`hfc ZZYbYb
gck]Y`X]Y`F YU_h]c b`XYf'; Ya Y]bXY`_Øb bhYb`_Øb Zh][`U`g`gY\ f
k]Wk h][`YfUWk hYh`k YfXYbž'i a `A\ b`]Wk Y`J cfZ`A`Y`ni `j Yf\]bXYfb`i bX
g]Wk Yfni ghY`Ybž'XUgg`b]Ya UbX`]b`gc`Wk Yb`Ui gVYi hYf]gWk Yb
J Yf\`A`hb]ggYb`YVYb`a i gg"

8YhU]g

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