J c`gdYffi b[ ]b`XYf`<Y]XY`ghY]bghfU» Y.
I a `Y]hi b[ Yb`i bX`Y bXYfi b[ Yb`]a `² DBJ

5V`8cbbYfghU[ ]gh`X]Y`<Y]XY`ghY]bghfU» Y`nk ]gW`Yb
9VYfgVYf[k Y[`i bX`DUf`\_`Ui g` LLL`@@`hn`j c``[YgdYffh"
I a `Y]hi b[ Yb`i bX`² DBJ !Y`bXYfi b[Yb`VYUW`hYb"

6Ui a U» bU`a Yb`]b`: i `XU.`5i gk ]f`_i b[Yb`Ui Z
J Yf`\_Y`f`i bX`5bk c`bYf

⊕: i `XU`ghY`h`Y]bY`k ]W`h[Y`6Ui a U» bU`a Y`Ub`ž`X]Y`UV
8cbbYfghU[`VY[ ]bYb`k]fX`"8]Y`<Y]XY`ghY]bghfU» Y`k]fX`nk ]gW`Yb
XYa `9VYfgVYf[ k Y[ `i bX`XYa `Ni [Ub[`ni a `DUf`\_`Ui g` LLL`@@`hn
j c``gh`AbX][ ` [YgdYffh"8]Yg`\_`Uh`b]W`h`bi f`5i gk]f`\_i b[ Yb`Ui Z`XYb
GhfU» Ybj Yf`\_Y`f`ž`gcbXYfb`Ui W`Ui Z`X]Y`5bk c`bYf`i bX`XYb
ÖZYbh]W`Yb`B`U`j Yf`\_Y`f`"

J Yf`\_Y`f`g`Ab`XYfi b[ Yb`i bX`I a `Y]hi b[Yb

8]Y`J c`gdYffi b[]b`XYf`<Y]XY`ghY]bghfU» Y`Z0`fh`X`Uni ž`X`Ugg`Ui W`
X]Y`A`U]bghfU» Y`Ub`XYf`9]ba`Ø`b`Xi b[`ni f`<Y]XY`ghY]bghfU» Y
VYhfcZYb`]gh" < ]Yf`k]fX`Y]b`b`Yi Yf`?`fY]gj Yf`_Y`f`[YV`Ui hž`k Yg`U`V
bi f`: i » [ `Ab[Yf`X]Y`6Ui ghY`Y`d`Ugg]YfYb`_`Ö`b`Yb""8Yf`VYghY`YbXY
?`fY]gj Yf`_Y`f`Ub`XYf`?`fYi nVYf[ ghfU» Y`k]fX`ni XYa `_ca`d`Y`hh
gUb]Yf`hž`k Ug`YVYbZU`g`ni `Y]bYf`J c`gdYffi b[`Z0`fh"

: Øf`5i hcZU`fYf`k i fXYb`I a `Y]hi b[ gghfYW`_Yb`Y]b[ Yf]W`hYhž`i a `X]Y
5i gk]f`\_i b[ Yb`XYf`GdYffi b[ Yb`ni `a ]b]a ]YfYb""8]Y`I a `Y]hi b[
YfZc`[ h`ØVYf`Zc`[YbXY`GhfU» Yb.`A`U]bghfU» Yž`?`c`\\`Äi`gYf`GhfU» Yž
?`Y`hYbghfU» Yž`5G`?`Y`hYbghfU» Yž`6`&+ž`5G`?`ØbnY`Yf`GhfU» Yž
?`ØbnY`Yf`GhfU» Y`i bX`?`fYi nVYf[ghfU» Y"

Ÿ bXYfi b[Yb`]a`ÒZZYbh`]WXYb`BU\j Yf_Y\ f

8]Y`GhUXhvi g`]b]Y`+ž`X]Y`X]Y`J YfV]bXi b[`j cb`=ghYf[]YgY`ni a
NYbhfia`i bX`6U\b\cZ#NC6`YfghY`hž`k ]fX`Xi fW`X]Y
6Ui a U» bU\ a Y`ghUf\_`VYY]bhfÅW`h][ h`8]Y`< U`hYghY`Y
6U\b\cZ#NC6`k ]fX`U`g`5i g[Ub[gdi b_hj Yfk YbXYhž`i bX`X]Y
Fci hY`ZØ\fh`ØVYf`a Y\ fYfY`U`hYfbUh]j Y`< U`hYghY`Ybž`k Å\ fYbX
Y]b][Y`< U`hYghY`Ybž`k]Y` 9XY`nY`Yf`6fØW_Y`i bX` 9XY`nY`Yf
G]YX`i b[ ž`j cfØVYf[Y\ YbX`b]W`h`VYX]Ybh`k YfXYb"

: Øf`X]Y`VYhfcZZYbYb`DUggU[ ]YfY`[]Vh`Yg`bYi Y
Ni gh]Y[ga`Ò[ `]W`\_Y]hYbž`X]Y`YXcW`Y`bUW`F]W`hi b[ `j Uf]]YfYb"
K Å\ fYbX`XYf`NY]h`XYf`6Ui UfVY]hYb`\_ØbbYb`X]Y`< U`hYghY`Yb
A]W`UY`!< Yb_Y`!GhfU» Y`i bX` NYbhfU`Zf]YX\cZ`ZØf`DYbX`Yf`Y]bY
k]W`h][ Y`5`hYfbUh]j Y`XUfghY`Yb"

9]b`Y`hnhYb`6Ui UVgW`b]hh`a`]h`Ub[Zf]gh][Yb
JcfhY]`Yb

8]Y`VYj c fghY\ YbXYb`5fVY]hYb`]b`XYf`< Y]XY`ghY]bghfU» Y`a Uf_]YfYb
XYb`Y`hnhYb`5VgW`b]hh`Y]bYg`i a ZUggYbXYb`6Ui dfc`Y`hgž`XUg`V]g
9bXY`XYg`ž\ fYg`UV[ YgW`cggYb`gY]b`gc`""A ]h`XYa`a`cXYfbYb
?fY]gj Yf_Y\ f`i bX`XYb`J YfVYggYfi b[ Yb`XYf`≠ZfUghfi`_hi`f`gc`Yb
X]Y`J Yf\_Y\ fgg]W`Yf\ Y]hi bX`X]Y`@VYbgei U`h`h`]b`XYf`I a [YVi b[
bUW`U`h][`j YfVYggYfh`k YfXYb"

8]YgY`A U» bU\ a Yb`g]bX`b]W`h`bi f`ZØf`5i hcZU\ fYf`j cb`6YXYi hi b[ž
gcbXYfb`\ UVYb`Ui W`5i gk ]f\_i b[ Yb`Ui ZX]Y`i`i » [Åb[Yf`i bX`XYb
ÒZZYbh`]WXYb`BU\j Yf_Y\ f`]b`XYf`F Y [ ]cb`"8U\ Yf`]gh`Yg`k ]W`h][ž`XUgg
g]W`X]Y`5bk c\bYf`i bX`DYbX`Yf`Ui ZX]YgY`J Yf`ÅbXYfi b[Yb
Y]bghY`Yb`i bX`X]Y`Ui g[YgW`]XYfhYb`I a`Y]hi b[ Yb`gck]Y`bYi Yb
Fci hYb`XYg`² DBJ`VYUW`hYb"

8]Y`GhUXh`i`i`XU`V]hh`Yh`X]Y`6Øf[Yf`i a`J Yfgh`AbXb]g`ZØf`X]Y
I bUbbY\ a`]W`_Y]hYb`i bX`Y[h`K Yfh`XUfUi Zz`XUgg`hf`ch`X]Yf
< YfUi gZcfXYfi b[Yb`X]Y`Ub[Zf]gh][Yb`JcfhY]`Y`ZØf`U`Y
J Yf_Y\ fghY]`bY\ a Yf`ja`JcfXYf[ fi bX`ghY\ Yb"

8YhU]g

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