G]W\ Yf\ Y]hgZfU[Yb`Ub` : `i [ \`ÄZYb.`K]Y
GW\ i hn`[ Y[ Yb`? `]a UU\_hj] ]ghYb`j YfgU[h

? `]a UU\_hj] ]ghYb`gW\ UZYb`Yg`hfc hn`ghfYb[Yf
G]W\ Yf\ Y]hgj cf_Y\ fi b[Yb`]a a Yf`k]YXYfž`XYi hgW\ Y
: `i [ \`ÄZYb`U\ a ni `Y[Yb`"K ]Y`[Y`]b[ h`XUg3

⇒ a Yf`k ]YXYf`gcf[Yb`? `]a UU_hj]]ghYb`ZØf`5i ZgY\ Yb`Ub`XYi hgW\ Yb
: `i [ \`ÄZYbž`]bXYa`g]Y`XYb`6Yhf]YV`U\ a `Y[Yb`"Hfc hn`ghfYb[Yf
G]W\ Yf\ Y]hgj cf_Y\ fi b[Yb`[ Y`]b[h`Yg`\bYbž`XUg: `i [\`UZyb[ Y`ÄbXY
ni `VYhfYhYb`i bX` : `i [VYk Y[i b[Yb`Yf\ YV`]W\ ni `ghØfYb`"K]Y
Yf_`ÄfYb`g]W\`X]YgY`J cfZÄ`Y`i bX`k Ug`k]fX`i bhYfbca a Ybž`i a`g]Y
ni `j Yf\]bXYfb3

⇒ `XYf`ni fØW`\_]Y[ YbXYb`K cW\ Y`\_Ua`Yg`ni`i a ZUggYbXYb
GhØfU_h]cbYb`XYf`; fi ddY` @YmhY`; YbYfUh]cb`"8]YgY`ZUbX`Ub
a Y\ fYfYb`VYXYi hYbXYb` : `i [ \`ÄZYb`ghUhhž`XUfi bhYf`? Ø`b#6cbbž
Ghi hh[Ufhž`6Yf`]b!6fUbXYbVi f[`i bX`BØfbVYf["GhUhh`Y]bYf
Y]ba U`][ Yb`5_h]cb`k Uf`X]Yg`Y]b`HY`]Y]bYg`[Yd`UbhYb`DfchYghYgž
i a`a YX]U`Y`5i Za Yf\_gUa`_Y]h`ni`YffY[Yb`"5\_hi`Y``g]bX`X]YgY
: `i [ \`ÄZYb`ZØf`j]Y`Y`F`Y]gYbXYž`]bgVYgcbXYfY`Ui`g`F`Y]b`UbX!DZU`nž
j cb`YbhgW\ Y]XYbXYf`6YXYi hi b["

G]W\ Yf\ Y]hga`Äb[ Y`Ub` : `i [\`ÄZYb

8Yf: `i [ \`UZyb` : fUb\_Zi fhž`Y]bYf`XYf`[fØ» hYb`]b`8Yi hgW\`UbXž`\UhY
VYfY]hg`j cf`k Yb][Yb`K cW\ Yb`a]h`5\_hj] ]ghYb`ni`\_Äa`dZYbž`X]Y`g]W\
Ui ZXYa`F`c`Z`X`ZYgh`_YVhYb`"@Ui h`XYa`6YhfY]VYf` : fUdcfh`]gh`XYf
[YgUa`hY` : `i [ \`UZyb`a ]h`ØVYf`" \$`?]`ca YhYfb`NUi bi a [YVYbž`XYf
U`g`g]W\ Yf`[ ]`h`8cW\`9i dYfhYb`k YfZYb`Yf\ YV`]W\ Y
G]W\ Yf\ Y]hga`Äb[ Y`j cf`"@i ZhZU\ fhYi dYfhY`<Y]bf]W\ ; fc» Vcb[UfXh
_f]h]g]Yfh`X]Y`J Yfk YbXi b[`]ga`d`Yf`A UgW\ YbXfU\ hnÄi bYž`X]Y`Y`Y]W\ h

a]h`Y]bYa `6c`nYbgW\ bY]XYf`ØVYfk i bXYb`k YfXYb`_ØbbYb"

; fc» Vcb[UfXh`J c f g W\`U[.`J Yf[ `Y]W\ Y`ni `XYb
G]W\ Yf\`Y]hgj cf\_`Y\fi b[Yb`]b`XYf`7\`Ya]Y!`i bX`5i hca`cV`]bXi ghf]Y
n]Y\`Yb" `8]YgY`i a ZUggYb`\c\`Yž`Y`Y\_hfc b]gW\`[Yg]W\ YfhY`NÄi bYž`c Zh
a]h`ni gÄh`]W\ Yf`? Ua YfUØVYfk UW\i b[ " `K Ybb`<i bXYfhY`j cb
A]`cbYb`ZØf`bYi Y`HYfa]bU`g`Ui g[Y[YVYb`k YfXYbž`gc`hYb`Ui W\
]bj Ygh]h]cbYb`]b`nY]h[Ya Ä»Y`G]W\ Yf\`Y]hgUb`U[ Yb`a Ø[`]W\`gY]b ž
gc`XYf` : UW\ a Ubb"

5a `: `i [\ UZYb`<U\`b`]a `<i bgfØW_`YXcW\`[UV`Yg`V]g`Ub[ `_Y]bY
j Yf[`Y]W\ VUfYb`DfchYghY" ; fc» Vcb[UfXh`ZØ\`fh`X]Y`i bUi ZÄ`][Y
@U[Y`XYg` : `i [ \ UZYbg`Ubž`XYf`ZØf`?]a UU\_h]j ]ghYb`_Y]bY`[fc» Y
K]f_i b[`YbhZU`hY" `8 Ug`g]bX`U`Yg`5gdY`hYž`X]Y`]bbYf\`U`V`XYf
GnYbY`Y]bY`Fc`Y`gd]Y`Yb" `K Yf`k ]fX`gW\`cb`VY]`Y]bYa `: `i [\ UZYb
dfchYgh]YfYbž`XYf`ØVYfgY\`Yb`k]fX3

F YU_h]cbYb`XYf`Dc`]h]\_`i bX

: `i [\ UZYbVYhfY]VYf

8]Y`k ]YXYf\`c`hYb`GhØfU_h]cbYb`V`Y]VYb`b]W\ h`c`\`bY`dc`]h]gW\ Y
F YU_h]cb" `≠bYba ]b]ghYf]b`B UbWmi: UYgYf`fGD8Ł\`Uh`X]Y`5_h]cbYb
_`Uf`j Yfi fhY]`hi bX`gdf]W\ h]j cb`\_f]a ]bY`Yb`<UbX`i b[Ybž`X]Y
[YZÄ\`f`]W\`gY]Yb" `G]Y`a UW\ h`YXcW\`Ui W\`X]Y`6YhfY]VYf`XYf
: `i [ \ ÄZYb`j YfUbhk`cfh`]W\ " `9g`]gh]`fY`DZ]W\ hž`X]Y`G]W\ Yf\`Y]h`XYf
5b`U[ Yb`ni `[ Yk Ä\`f`Y]ghYb"

8Yf` : `i [\ UZYbj YfVUbX`58J`hY]`hY`a]hž`XUgg`Ub`XYb
YbhgdYfW\ YbXYb`GhUbXcfhYb`G]W\ Yf\`Y]hgØVYfd fØZ] b[Yb
j cf[Ybca`a Yb`k YfXYbž`i a`X]Y`5b`U[Yb`ni `j YfVYggYfb" `F U`d\
6Y]gY`ž`XYf`<Ui dh[ YgW\ ÄZhgZØ\`fYfž`VYhcbhYž`XUgg`X]Y
G]W\ Yf\`Y]hggmghYa Yž`XUfi bhYf`a`cXYfbY`X][ ]hU`Y`HYW\ bc`c[]Yb
i bX`? ≠[ YghØmhY`≠ghfi a YbhYž`ghÄbX][ `ØVYfd fØZh`k YfXYb" `≠`XYb
V]g\`Yf][ Yb`J cfZÄ`Yb`k i fXYb`X]Y`9]bXf]b[`]b[ Y`gcZcfh`YbhXYW_h"

8]Y`a Ø[ `]W\ Y`9]bZØ\`fi b[`ÄfhYfYf`GhfUZYb`ZØf`gc`W\ Y`5_h]cbYb
_ØbbhY`YXcW\`Y]bY`YbhgW\ Y]XYbXY`K YbXY`Vf]b[ Yb" ; Yd`Ubh]gh
X]Y`6YghfUZ] b[ `XYg]j c f g Äh`]W\ Yb`9]bXf]b[Ybg`]b

g]W\Yf\Y]hgFY`Yj UbhY`6YfY]W\Y`XYf: `i [\ÅZYb`a]h: fY]\Y]hgghfUZYb
j cb`V]g`ni`nk Y]`Å\FYb" `9g`V`Y]Vh`UVni k UfhYbž`k ]Y`XYf`6i bXYghU[
ØVYf`X]YgY`J c f g W\`Å [ Y`Yb h g W\Y]XYh"

⇒ F Y U _h]c b`U i Z`X]Y`5\_hj ]ghYb`gU[hY` ; fc» Vcb[ UfXh` K Ybb`a Ub
]\bYb`X]Y`? c b g Y e i Y b n Y b`Y f b g h \ U Z h j c f`5 i [Y b`ZØ\fhž`k]fX`X]Yg
a Ò[`]W\Yfk Y]gY`X]Y`< Åi Z[ \_Y]h`gc`W\Yf`5_h]c b Y b`XfUgh]gW
j Yff]b[Yfb" `8]Y`Ni`\_i b Zh`XYf`DfchYghU\_h]c b Y b`_ØbbhY`U`gc`j c b
XYf`6YfY]hgW\UZh`XYf; YgYhn[YVYf`UV\Åb[ Ybž`f][c f c g [Y [Y b
GhØfYf`j c f n i [Y \ Y b"

9]b`6`]W`\_]b`X]Y`Ni`_i b Zh

⇒ a`? c b h Y i h`X Y f`g]W\`j Y f g W\`Å f Z Y b X Y b`d c`]h]gW\Yb
F U \ a Y b V Y X]b [i b [Y b`\_ØbbhY`g]W\`X U g`6]`X`X Y f`?`]a U U _h j]ghYb`Ub
: `i [ \ÅZYb`V U`X`Å b X Y f b": U`g`X]Y [Y d`U b h Y b`; Y g Y h n Y g Å b X Y f i b [Y b
]b`? f U Z h`h f Y h Y b ž`k ]fX`Y g`g d U b b Y b X`n i`V Y c V U W\`h Y b ž`k ]Y`g]W\`X]Y
DfchYgh`\_i`h i`f`U b`Y]b Y a`X Y f`g Y b g]V Y`ghYb`C f h Y`]a`H f U b g d c f h k Y g Y b
Y b h k]W`Y`b`k ]fX`?`]a U U \_h j ]ghYb`ghY`Y b`j c f`X Y f
< Y f U i g Z c f X Y f i b [ž`g]W\`X Y b`b Y i Y b`6 Y X]b [i b [Y b`U b n i d U g g Y b ž
k Å \ f Y b X: `i [ \ U Z Y b V Y h f Y]V Y f`X]Y`B c h k Y b X][ \_Y]h`\ U V Y b ž`] \ f Y
G]W\Yf\Y]hg`c b n Y d h Y`[f i b X`Y [ Y b X`n i`Ø V Y f X Y b`_Y b`i b X
U i g n i V U i Y b"

<]b h Y f [f i b X`X Y f

?`]a U [Y f Y W\ h][_Y]hg V Y k Y [i b [

8]Y`6Yk Y [ i b [ Y b`ZØf`?`]a U [Y f Y W\ h][_Y]h`g]b X`]b`X Y b`Y h n h Y b
Å \ f Y b`k Y`h k Y]h [Y k U W\ g Y b ž`k c V Y]; f i d d]Y f i b [ Y b`k]Y`X]Y
@Y h n h Y; Y b Y f U h]c b`\_]b`8 Y i h g W\`U b X`U b`d f c a`]b Y b h Y f`G h Y`Y
g h Y \ Y b" `8]Y g Y`5_hj]ghYb`Z c f X Y f b`X f U g h]g W\Y`A U» b U \ a Y b`n i f
6 Y _Å a d Ž b [`X Y f`?`]a U \_f]g Y`i b X`b i h n Y b`X U V Y]`Å i Z[
[Y k U`h g U a Y`D f c h Y g h Z c f a Y b ž`i a`U i Z]\ f Y`5 b`]Y [Y b`U i Z a Y f`g U a
n i`a U W\ Y b" `9]b`k ]W\ h][ Y f`H Y]`]\ f Y f`5 f [i a Y b h U h]c b`]g h`X]Y
j Y f a Y]b h]W\Y`i b h`Å h][_Y]h`X Y f`F Y []Y f i b [Y b`]b`6 Y n i [`U i Z`X]Y
9 f f Y]W\ i b [`X Y f`?`]a U n]Y`Y"

9]bhfÅ[Y`b`8Yi hgWÅ`UbX`UggYb`g]WÅ`Ui Z`X]Y` : f]XUmg!Zcf!: i hi fY!
6Yk Y[i b[`ni f0W\_Z0\FYbž`X]Y`j cb`XYf`gWÅk YX]gWÅYb`5_hj]]gh]b
; fYhU`H\i bVYf[ `]bg`@YVYb`[Yfi ZYb`k i fXY`"8]YgY`6Yk Y[ i b[ ` \Uh
A]`]cbYb`]bgd]f]Yfhž`g]WÅ`Z0f`Y]bY`bUWÅ`U`h][YfY`Ni `i bZh
Y]bni gYhnYb`" ð`K]f`\_]WÅ`_Y]h`k ]fX`X]Y`Dc`]h]_`YXcWÅ` \`Åi Z][ `Z0f
i bni fY]WÅYbXY`A U»bU`a Yb`ni f`6Y`\_Åa dZi b[ `XYg`?`]a Uk UbXY`g
_f]h]g]Yfhž`k Ug`ni f`9g`U`Uh]cb`XYf`DfchYghZcfa Yb`[YZ0`fh`\Uh"

5_hi Y``Y`GhUh]gh]\_Yb`ni `DfchYghYb`i bX`XYfYb
5i gk]f_i b[Yb

8]Y`0b[ ghYb`i a ZFU[Yb`nY][ Ybž`XUgg`Y]b`VYhfÅWÅh]WÅYf`HY]`XYf
6Yj 0`\_Yfi b[ `X]Y`5\_h]cbYb`j cb`?`]a UU_hj]]ghYbž`]bgVYgcbXYfY`X]Y
GhfU»YbV`cW\_UXYb`i bX` : `i [\UZy bdfchYghYž`]bg[ YgUa h`UV`Y`b`h"
@Ui h`Y]bYf`i a ZFU[Y`XYg`A Y]bi b[gZc fgWÅi b[g]bgh]hi hg` : c fgUž`X]Y
]a ` : f0` \`f`&\$&(`Xi fWÅ [ YZ0`fh`k i fXYž`g]bX`\*` `i `XYf`6YZFU[hYb
XYf`5bg]WÅ hž`XUgg`X]Y`5_h]cbYb`XYf`?`]a UU\_hj] ]ghYb`0VYf`XUg`N]Y`
\]bUi ggWÅ]Y»Yb`i bX`XYb`DfchYghX]g\_i fg`b]WÅh`i bhYfgh0mYb"

K]fhgWÅ UZh]WÅY`5bU`mgYb` \UVYb`[YnY][hž`XUgg`X]Y`Xi fWÅ`X]YgY
Gh0fU_h]cbYb`j Yfi fgUWÅ hYb`k]fhgWÅ UZh]WÅYb`GWÅ`ÅXYb`]b`X]Y
A]`]cbYb`[Y`Y`b`" ðbgVYgcbXYfY`XYf`@ Zj Yf`_Y`f`\Uh]b`XYb`Y`h`hYb
»\fYb`i bhYf`XYb`9]bgWÅ f`Åb_i b[Yb`XYf`7CJ`8!%- !DUbXYa]Y
[Y`]hhYbž`i bX`X]Y`ni g`Åh`]WÅYb`Gh0fi b[ Yb`Xi fWÅ`DfchYghY`hfU[Yb
ni f`i bg]WÅYf`\Y]hi bX`]bghUV]Yb` ; YgWÅ UZh`gVYX]b[ i b[ Yb`]b`XYf
6fUbWÅY`VY]"

F YU_h]cbYb`Ui g`XYf`N]j ]`[YgY``gWÅ UZh`i bX
a 0[`]WÅY`@0gi b[gUb`g`ÅhnY

8]Y`8]g\_i gg]cb`0VYf`X]Y`HU_h]_Yb`XYf`5_hj]]ghYb`\Uh`Ui WÅ`ni
Y]bYf`VfY]hYfYb`8YVUhY`]b`XYf` ; YgY``gWÅ UZh[YZ0`fh`J]Y`Y`ZcfXYfb
Y]bYb`\_cbghfi \_hj] Yb`8]U`c[ `nk]gWÅYb`?`]a UgWÅi hnVYk Y[i b[Yb
i bX`XYf`Dc`]h]\_`" ð]h]Uh]j Yb`k ]Y` 60f[YfX]U`c[ `?`]a UgWÅi hn
j Yfgi WÅYbž`Y]bY`D`UhhZcfa `ni `V]YhYbž`i a `j YfgWÅ]YXYbY
A Y]bi b[Yb`i bX`DYfgdY_hj] Yb`ni `]bhY[f]YfYb`"Gc`WÅY`8]U`c[Y
_0bbhYb`XUni `VY]hfU[Ybž`Y]b[ Ya Y]bgUa Yg`J Yfgh`ÅbXb]g`Z0f`X]Y

<YfUi gZcfXYfi b[Yb`XYf`?`]a U\_f]gY`ni `gW\UZZYb"

9]bY`a Ò[ `]W\Y`@Ògi b[ ` _ÒbbhY`]b`Y]bYf`j YfghÀf_hYb
?ca a i b[_Uh]cb`nk ]gW\Yb`XYf`FY[ ]Yfi b[ `i bX`XYb`5_hj]]ghYb
`]Y[ Ybž`i a `YZZY\_hj] YfY`i bX`[ Yk U`hZfY]Y`DfchYghZcfa Yb`ni
Ybhk]W_Y`bž`X]Y`k Yb][ Yf`GhÒfi b[Yb`j Yfi fgUW\Yb`"8UfØVYf`\]bUi g
_ÒbbhYb`ϕZcfa Uh]cbg!`i bX`GYbg]V`]g]Yfi b[g_Ua dU[bYb`]b
GW\i `Yb`i bX`?ca a i bYb`Y`ZYbž`XUg`6Yk i gghgY]b`ZØf`X]Y
?`]a U\_f]gY`ni `gW\ÀfZYbž`c\`bY`XUgg`Yg`ni `fUX]\_U`Yb`DfchYghZcfa Yb
_ca a Yb`a i gg"

8YhU]`g

6Ygi W\Yb`G]Y`i bg`Ui Z.`X]Y!bUW\ f]W\ hYb`"bYh