

: 7`GW\U`_Y`\$(`. `Nk Y]`gdUbbYbXY
BYi ni [`Àb[Y`Vf]b[Yb`Zf]gW\Yb`K]bX`°

: 7`GW\U`_Y`\$(`gcf[h`ZØf`5i ZfY[i b[`a]h`nk Y]`BYi ni [`Àb[Yb.
GhYj Y`BccXY`i bX`≐mYg`<Ua UW\Y`"8]Y` : Ubg`ZY]Yfb`XYb
bYi Yb`?i fg`°

8Yf` : 7`GW\U`_Y`\$(`gcf[h`ZØf`5i ZfY[i b[`i bX` : fYi XY`VY]`gY]bYb
 : Ubg`"BUW\XYa `Ub[Y`NY]h`i b[Yk]gg\Y]h`ØVYf`a Ø[`]W\Y`HfUbgZYfg
\YffgW\hY`ž`d`f`A`gYb`h]Yf`hY`XYf`J`YfY]b`[`Y]W\`nk Y]`BYi ni [`Àb[Y`]b
Y]bYa `i`fnYb`NY]hfUi a `"8]YgY`9bhk]W`i b[Yb`_ca`a`Yb`X]fY`_h
bUW\`XYa`K`Y]hYf`_ca`a`Yb`]a`8: 6!Dc`_U`ž`k`Ug`XYb` : Ubg
ni`g`À`h`n`]W\Yb` ; fi`bX`ni`f` : fYi`XY`[]Vh`"

8Yf`YfghY` , VYffUgW\i b[ghfUbgZYf`]gh`XYf`c`ZYbg]j`Y
A`]hY`ZY`Xgd]Y`Yf`GhYj`Y`BccXY`"; `Y]W\`nY]h][`[]Vh`XYf`J`YfY]b`Ui`W
X]Y`J`YfdZ]W\hi b[`j`cb`i`≐mYg`<Ua UW\Y`VY`_Ubbh`"8]YgY`HfUbgZYfg
k`i`fXYb`gck`c`\`Ui`Z`XYf`c`Z]n]Y`Yb`K`YVgY]hY`U`g`Ui`W`]b`gc`n]U`Yb
A`YX]Yb`ZY]Yf`]W`j`Yf`_ØbXYh`ž`k`Ug`X]Y`6Y[`Y]ghYfi`b[`XYf`5b`\`Àb[`Yf
k`Y]hYf`Ub`\Y]nh`"

BYi Y` ; Yg]W\ hYf`]a`HYUa

≐mYg`<Ua UW\Y`ž`XYf`j`ca`ZfUbnØg]gW\Yb`Nk Y]h`][`]ghYb` : 7
J`U`Yb`W]YbbYg`k`YW\gY`h`ž`k`]fX`XYb`GW\U`_Y! : Ubg`U`g`bYi`Yg
C`ZYbg]j`hU`Yb`h`j`cf[`YghY`"h`9f`i`bhYfgW\fY]Vh`Y]bYb`J`Yf`hfU[`ØVYf
j`]Yf`>\fY`i`bX`hf`À[`h`X]Y`F`ØW`Ybbi`a`a`Yf`&(`"8Yf`J`YfY]b`\`À`h`g]W
VYnØ[`]W\`XYf`5V`ØgYgi`a`a`Y`VYXYW`h`ž`k`Ug`c`Z`ha`U`g`Y]b
[`Yk`Ø`\b`]W\Yg`J`cf[`Y`\Yb`]b`XYf` : i`»`VU`"k`Y`h`]gh`"

GdcfhX]fY`_hcf`A`UfWK`]`a`chg`[`Yk`À`\fh`9]bV`]W`_Y`]b`X]Y
9bhgW\Y]Xi`b[`ZØf`<Ua UW\Y.`≐mYg`\Uh`]b`gY]bYb`ØVYf`,`\$`Gd]Y`Yb

]b`XYf`nk Y]hYb`ZfUbn`0g]gWXYb`@[U`[YnY][hz`XUgg`Yf`Y]b`_fYUh]j Yf
: i »VU`Yf`a]h[i hYa`Gd]Y`j Yfgh`AbXb]g`]gh ž`Yf`_`Äfh`K]`a`chg"
<Ua`UWXY`k]fX`U`g`ZYI]V`Yf`Gd]Y`Yf`VYgWf]YVYbž`XYf`gck`c\`]a
NYbhfi`a`U`g`Ui`W`Ui`Z`XYb`5i »Ybdcg]h]cbYb`Y]b[YgYmhk`YfXYb
Ubb`"8]Yg``0bbhY`Y]bY`k`Yfhj`c`Y`9f[Äbni`b[`Z0f`XUg`HYUa`i`bhYf
HfU]bYf`?`UfY`"; YfUYfhg`XUfghY`Yb"

: Ub`_`i` `hi`f`i`b`X`J`c`f`ZfYi`XY

6YgcbXYfg]a` ; Ygdf`ÄW`]gh`YXcW`6Yb`A`Ub[Už`XYf`?`UXYfd`UbYf
XYg`J`YfY]bgž`XYggYb`ghfUhY[]gWXY`9bhgWXY]Xi`b[Yb`c`ZYbVUf`ni
Y]bYa`K]YXYfUi`ZYVYb`XYf`6Y[Y]ghYfi`b[`VY]`XYb` : Ubg`[YZ0\`fh
\UVYb`"GY]b`9b[U[Ya`Ybh`k]fX`j`cb`XYb`5b`\Äb[Yfb`Ui`hghUf`_
[YZY]Yfh`Hk`YYhg`j`cb[`0W`_]WXYb` : Ubg`nY][Yb`X]Y`9i`d\`cf]Y.`8`Ug
]gh`U`_`fUb`ž`k`Ug`A`Ub[U`XU`Ua`N`Ui`VYfb`]gh`ž`i`b`X`K`Ug[Y\`h`\]Yf
UV3`ž`gWXY]bYb`X]Y`U`[Ya`Y]bY`Gh]a`a`i`b[`hfY`ZYb`X
k]XYfni`gd]Y[Y`b`"GY`Vgh`_f]h]gWXY`5b`\Äb[Yfž`X]Y`]b`XYf`0b[YfYb
J`Yf[Ub[Yb`Y]h`Xi`fW`gd`cfh]WXY`A`]ggYfZc`[Y`j`Yfgh`0fh`k`UfYbž
[YVYb`g]W`cdh]a`]gh]gW.`B]W`h`a`Y`f`a`Y]b`GW`U`_`Y`"8`U`k`]fX`[i`h
[YUfVY]hYh"

8]Y`I`a`gYhni`b[`X]YgYf`HfUbgZYfg`\Uh]g]WXYf`]WXY`X]Y` ; Ya`0hYf`XYf
: Ubg`Ui`Z[Y\`Y`h`z`X]Y`g]W`b`UW`XYb`hi`fVi`YbhYb`X\`fYb`Y]bY
dcg]h]j`Y`9bhk`]W`i`b[`Yf`c`ZYb`"8]Y`YbhgWXY]XYbXYb
?`UXYfj`YfÄb`XYfi`b[Yb`g]bX`b]W`h`bi`f`Y]bY`9fbYi`Yfi`b[ž`gcbXYfb
g]Y`_`0bbhYb`Ui`W`XYb`5b`ZUb[`j`cb`Yhk`Ug` ; f0»`YfYa`a`Uf_]YfYb`"
8]Y`@`Zi]b` ; Y`gYb_]fWXYb`gWXY]bh`k]YXYf`Zf]gW`i`b`X`j`c`Yf
<c`Zbi`b[`ni`gY]b"

8]Y`J`Yf`UbX`i`b[Yb`i`b`X`XYf`HfUbgZYf`j`cb`mYg`<Ua`UWXY`k`UfYb
`Ui`h`K]`a`chg`_Y]bY`gdc`bhUbY`9bhgWXY]Xi`b[ž`gcbXYfb`XUg`F`Ygi`hUh
a`cbUhY`Ub[Yf`D`Ubi`b[" `W` \`UVY`]b`gÄa`h]WXYb` ; Ygdf`ÄWXYb
[Ygd0fhž`k]Y`gY`f`a`]W`X]Y`J`YfUbhk`cfh]WXYb`Ui`Z`GW`U`_`Y`\`c`Yb
k`c`hYb`ž`Äi`»`Yfh`XYf`Gd]Y`Yf`gY`Vgh`i`b`X`XYi`hYh`XUa`]h]Ubž`XUgg`Yg
Y]b`ghUf`_Yg`hYfYggY`j`cb`VY]XYb`GY]hYb`[UV"

8]Y`H`UhgUWXYž`XUgg`XYf`J`YfY]b`b`UW`Y]bYf`D`UgY`XYf`I`bg]WXYf`Y]h
gc`gW`bY`[`Y]W`nk`Y]B`Yi`ni`[Äb[Y`d`f`ÄgYbh]Yfhž`_`0bbhY`U`g

NY]W\Yb`ZØf`k Y]hYfYg`UbXZYghY`9b[U[Ya YbhXYf`J YfY]bgZØ\fi b[
[Yk YfhYh`k YfXYb" `J]Y`Y`9i dYfhYb`[Y\Yb`XUj`cb`Ui`gž`XUgg`X]Yg
XUg`N]Y`j YfZc`[hž`X]Y`gdcfh]W\Y`≠XYbh]hÅh`XYg`?`i Vg
k]YXYf\Yfni`ghY`Yb`i bX`Ub`X]Y`9fZc`[Y`XYf`J Yf[Ub[Yb\Y]h
Ubni`_bØdZYb"

8]Y`Ni`_i`bZh`XYg` : 7`GW\U`_Y`\$(

8]Y`YhnhYb`HfUbgZYfg`k YfXYb`k U\fgW\Y]b`]W\`b]W\h`X]Y`YhnhYb
gY]bž`X]Y`X]Y` : Ubg`]b`X]YgYa`HfUbgZYfZYbghYf`Yfk UfhYb`XØfZYb" `8]Y
Ub\U`hYbXY`Dcg]hj`Y`Gh]a`a`i`b[`fi`bX`i`a`XYb`J YfY]b`]gh
VYa`Yf`_Ybgk`Yfh`i`bX`Åggh`\c`ZYbž`XUgg`GW\U`_Y`\$(`]b`XYf
_ca`a`YbXYb`GU]gcb`k]YXYf`Ui`Z`XYf`9fZc`[ggdi`f`k`UbXYb`b`_Ubb"
8]Y`J`cfZFYi`XY`Ui`Z`X]Y`bYi`Yb` ; Yg]W\hYf`i`bX`X]Y`Zf]gW\Yb`=a`di`gYž
X]Y`g]Y`]bg`HYUa`Vf]b[Yb`k`YfXYbž`]gh`gdØfVUf" `8]Y`Ni`_i`bZh
gW\Y]bhž`ni`a`]bXYgh`ZØf`XYb`A`ca`Yb`hž`j`]Y`j`YfgdfYW\YbX`ZØf`XYb
hfUX]h]cbgfY]W\Yb`J YfY]b`ni`gY]b"

8]Y`U`_hi`Y`Yb`HfUbgZYfg`i`bX`]`fY`6YXYi`hi`b[ZØf`GW\U`_Y`\$(

8]Y`J`YfdZ]W\h`i`b[Yb`]cb`GhYj`Y`B`ccXY`i`bX`≠mYg`<`Ua`UW\Y`ghY\Yb
gma`Vc`g]W\`ZØf`Y]bYb`BYi`UbZUb[`VY]a` : 7`GW\U`_Y`\$("`B`UW\`Y]bYf
Yb`hÅi`gW\YbXYb`D\UgY`k`c`hY`XYf`J YfY]b`Zf]gW\Yb`K`]bX`]b`X]Y
A`UbbgW\UZh`Vf]b[Yb" `8]Y`V]g\Yf][Yb`HfUbgZYfg`_ØbbhYb`b]W\h`bi`f
X]Y`A`UbbgW\UZh`ghÅf`_Ybž`gcbXYfb`Ui`W\`XUg`GY`Vghj`YfhfUi`Yb`XYf
Gd]Y`Yf`i`bX` : Ubg`ni`fØW_[Yk`]bbYb"

J`YfUb`hk`cfh]W\Y`XYg`J`YfY]bg`VYhcbYbž`XUgg`gc`W\Y`BYi`ni`[`Åb[`Y
`Ub[`Zf]gh][`Ub[`Y`Y[`h`g]bXž`i`a`Y]bY`_cb`_i`ffYbnZÅ\][`Y`A`UbbgW\UZh
ZØf`X]Y`b`ÅW\ghYb`≠\`fY`Ui`Zni`VUi`Yb" `6YgcbXYfg`X]Y`J`YfdZ]W\h`i`b[
j`cb`<`Ua`UW\Yž`XYf`Ui`Z[`fi`bX`gY]bYf`ghUf`_Yb`@Y]ghi`b[`Yb`]b`XYf
nk`Y]hYb`ZfUbnØg]gW\Yb`@[`U`Ui`Z`g]W\`Ui`Za`Yf`_gUa`a`UW\hYž`_ØbbhY
XYi`h]W\`XUni`VY]hfU[`Ybž`X]Y`C`ZYbg]j`Y`XYf`A`UbbgW\UZh`ni
VY`YVYb`i`bX`ZØf`a`Y`f`8`i`fW\gW\`U[`g`_fUZh`ni`gcf[`Yb"

9]b`6`]W`_Ui`Z`X]Y`<`]bhYf[`fØbXY`XYg`J`YfY]bg

GWXU`_Y`\$(` \Uh]b`XYb`YhnhYb`fYb`a`]h`Z]bUbn]Y`Yb
GWXk]Yf][_Y]hYb`i`bX`gdcfh]WXYb`F`ØW_gW`À[Yb`ni`_`Àa`dZYb`"8Yf
7`i`V`a`i`gghY`a`Y`fYfY`5Vgh]Y[Y` \]bbY`a`Yb`i`bX` \UhY`XUa`]h`b]W`h
bi`f`X]Y`A`Ò[`]W`_Y]hž`g]W`gdcfh]W`ni` `VYk`Y]gYbž`gcbXYfb`Ui`W`
k`]fhgW`UZh]W`Y`F`ØW_gW`À[Y`ni` `j`Yf`fUZhYb`"8Ug`A`UbU[Ya`Ybhž
Ub[YZØ`fhj`cb`A`UfWK`]`a`chg`i`bX`6Yb`A`Ub[Už` \Uh`g]W` `YXcW`
YbhgW` `cggYbž`X]YgYf`BY[Uh]j`gd]fU`Y`a`]h`Y]bYf`[Yn]Y`hYb
HfUbgZYfdc`]h]_`Ybh[Y[Ybni`k`]f`_Yb`"

8]Y`Z]bUbn]Y`Y`GhUV]`]h`Å`h`k`i`fXY`Xi`fW`X`Yb`J`Yf`_Ui`Zj`cb`Gd]Y`Yfb
i`bX`X]Y`9ff]W`hi`b[`Y]bYf`gc`]XYb`BUW`k`i`W`gU`UXYa`]Y`gck`]Y
Xi`fW`ghfUhY[]gW`Y`DUfhbYfgW`UZhYb`k`Y]hYf`[YZYgh][h`"8]Yg
_`ÒbbhYb`X]Y` ;`fi`bX`U[Yb`ZØf`Y]bYb`bUW` \U`h][Yb`9fZc`[`V]`XYbž
k`Ug`ZØf`XYb`J`YfY]b`i`bX`gY]bY`5b` \Åb[Yf`j`cb`YbhgW`Y]XYbXYf
6YXYi`hi`b[`]gh`"

GhUh]gh]gW`Y`9]b`gW`Å`hni`b[Yb`ni B`Yi`ni`[`Åb[Yb`

GhUh]gh]_Yb`ØVYf`X]Y`@]ghi`b[`j`cb`Gd]Y`Yfb`Ui`g`k`Yb][Yf
dfca`]bYbhYb`@[Yb`nY][Ybž`XUgg`HU`YbhY`k`]Y`<`Ua`UW`Y`c`Zi[`fc`»`Yg
DchYbn]U`VYg]hnYb`" `ϕ`XYb`YhnhYb`fYb` \UVYb`g]W` `j`]Y`Y`Gd]Y`Yfž
X]Y`j`cb`XYb`i`bhYfYb`@[Yb`]b`UhhfU`_h]j`Y`@[Yb`k`]Y`X]Y`6i`bXYg`][U
[Yk`YW`gY`h`g]bXž`U`g`YbhgW`Y]XYbXY`J`Yfgh`Åf`_i`b[Yb
 \YfUi`g[YghY`h`"9]b`6Y]gd]Y` `]gh`XYf`YfZc`[fY]W`Y`K`YW`gY` `j`cb`9a`]`
:`cfgVYf[`j`cb`XYf`gW`k`YX]gW`Yb`@[U`ni`f`F`6`@]dn][ž`XYf`gY]bY
: `Å\][_Y]hYb`Ui`Z`Y]bYf` \Ø`YfYb`9VYbY`XYa`cbghf]Yfh` \Uh`"

GWXU`_Y`\$(` _`ÒbbhY`Xi`fW`X]Y`J`YfdZ]W`hi`b[`†`b[Yf`HU`YbhY`k`]Y
<`Ua`UW`Y`]b`XYf`@U[Y`gY]bž`b]W`h`bi`f`X]Y`U`_hi`Y`Y`GU]gcb
_`cb`_i`ffYbnZ`Å` \][`ni` `i`[YghU`hYbž`gcbXYfb`Ui`W` `Y]bY`6Ug]g`ZØf
 `Ub[Zf]gh][Yb`9fZc`[`ni` `gW`UZZYb`" `ϕ`XYf`6i`bXYg`][U`]gh`Yg`b]W`h
i`bØV`W`ž`XUgg`Gd]Y`Yf`nk`]gW`Yb`&\$`i`bX`&) `fYb`g]W` `U`g
GW`ØggY`gd]Y`Yf`Ybhk`]W`_Y`bž`k`cXi`fW` `]fY`9bhk`]W`_i`b[`]a` `:`c`_i`g
ghY`h`"

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