

GWX bY`Y`5i Z_`Àfi b[.`J YfXÀW h][Yf`b UWX
; `UgZ`UgWX Ybk i fZ`[YZUggh

9fZc`[`XYf`² ZZYbh`jWX`_Y]hgZU`bXi b[.`.; Ygi WXhYf`bUWX`5b[f]ZZ
Ui ZDc`nY]VYUa hYb`ghY`h`g]WX`XYf`6i bXYgdc`nY]`b`F cghcW`"

8]Y`6i bXYgdc`nY]]bgdY`_h]cb`F cghcW`_`Uh`Y]bYb
VYa Yf`_Ybgk YfhYb`:`cfhgWX`f]hh]b`Y]bYf`:`U`bXi b[`ni`j YfnY]WX`bYb`"
5a`:`fY]hU[žXYb`%*`"5i [i gh&\$&(ž`UhY`X]Y`Dc`nY]VY`ÖfXY`X]Y
² ZZYbh`jWX`_Y]hi a`A`h\`ZY`[YVYhYbž`bUWX`XYa`Y]b`J cfZU`k`À`fYbX
Y]bYg`:`i » VU`gd]Y`g]a`Bcj Ya VYf`&\$&`ZØf`5i ZgY`Yb`[Ygcf[h
`UhY`"8 UVY]k Uf`Y]b`V]g`Yf`i bVY`_UbbhYf`HÀhYf`Ui g`Y]bYf`[fc» Yb
A YbgWX`Yba`Yb[Y`YfUi g`[Yk cfZYb`k cfXYbž`k Ug`X]Y`G]WX`Yf`Y]h
XYf`6YUa hYb`]b`:`fU[Y`ghY`hY`"

⇒ `?cbhYi h`X]YgYg`J cfZU`gž`XYf`k`À`fYbX`Y]bYf`:`i » VU`VY[Y[bi b[
nk`]gWX`Yb`XYa`:`7`< UbgU`F cghcW`_`i bX`:`7`Gh`DUi`]`ghUhhZUbXž
k i fXY`Y]b`Dc`nY]VYUa hYf`c`bY`<Y`a`a`h`Y]bYf`:`UgZ`UgWX`Y
UhhUW`_Yfh`Gc`WX`Y`_`VYf[f]ZZY`Ui Z`X]Y`Dc`nY]`g]bX`b]WX`h`bi`f
VYXYb`_]WX`ž`gcbXYfb`ghY`Yb`Ui WX`Y]bY`<YfUi gZcfXYfi b[`ZØf`X]Y
ÖZZYbh`jWX`Y`G]WX`Yf`Y]h`XUf`"⇒`X]YgYa`:`U`Yb`hgWX`]YX`g]WX`X]Y
6i bXYgdc`nY]ž`X]Y`6Yj`Ö`_Yfi b[`U`_h]`]`b`X]Y`:`U`bXi b[
Y]bni VYn]Y`Ybž`i a`XYb`a`i`ha`U»`]WX`Yb`GhfUZh`hYf`ni
]XYbh]Z]n]YfYb`"

8 Yf`gWX bY`Y`Y`9fZc`[`XYf
² ZZYbh`jWX`_Y]hgZU`bXi b[

6YfY]hg`Ua`:`fY]hU[UVYbXž`bi f`k`Yb][Y`Ghi bXYb`bUWX
J YfÖZZYbh`jWX`i b[`XYf`:`U`bXi b[ž`a`Y`XYhY`g]WX`XYf`[Ygi WXhY`A`Ubb
ZfY]k`]`[`VY]`XYf`6i bXYgdc`nY]`"8]YgY`gWX`bY`Y`F`YU`_h]cb`]gh`Y]b
dcg]hj`Yg`G][bU`i`bX`nY][hž`k`]Y`k`]WX`h][`Yg`]ghž`XUgg`X]Y`6Øf[Yf`]b

G]W\Yf\Y]hgZfU[Yb`J YfUbhk cfhi b[`ØVYfbY\`a Yb"8]Y`Dc`nY]
gW\ÀhnhY`X]Y`I bhYfghØhni b[ž`X]Y`g]Y`Xi fW\`X]Y`6Yj Ò`_Yfi b[
Yf\]Y`hž`i bX`_cbbhY`gca`h]X]Y`: U\`bXi b[`gW\`bY`Y]bghY`Yb"

8i fW\`X]Y`d cg]h] Yb`F ØW_a`Y`Xi b[Yb`Ui Z`X]Y
² ZYbh`]W\`_Y]hgZU\`bXi b[`_cbbhY`X]Y`Dc`nY]`XYb`J cfZU`nY]hbU\`
Ui Z`_ÀfYb"8]Yg`i bhYfghfY]W\`h`X]Y`6YXYi hi b[`XYf
Ni gUa`a`YbUfVY]h`nk`]gW\`Yb`XYb`G]W\`Yf\Y]hgVY\`ØfXYb`i bX`XYf
6Yj Ò`_Yfi b["K`Ybb`6Øf[Yf`g]W\`U`_h]j`]b`X]Y`G]W\`Yf\Y]hg`U[Y`]\`fYf
I`a`[YVi b[`Y]bVf]b[Ybž`_ØbbYb`fUgW\`Y`: cfhgW\`f]hhY`Yfn]Y`h
k`YfXYb"

8]Y`F`c`Y`XYf`A`YX]Yb`i`bX`XYf`²`ZZYbh`]W\`_Y]h

9]bY`YbhgW\`Y]XYbXY`F`c`Y`gd]Y`h]b`gc`W\`Yb`: À`Yb`Ui`W\`X]Y
6Yf]W\`hYfghUhh`i`b[`XYf`A`YX]Yb"8]Y`6i`bXYgdc`nY]`\`Uh`XUfi`a
[YVYhYbž`X]Y`: U\`bXi`b[`b]W\`h`k`Y]hYf`ni`di`V`n]YfYb`cXYf`ni
`ØgW\`Ybž`bUW\`XYa`X]Y`[Ygi`W\`hY`DYfgcb`Yfa`]hhY`h`k`i`fXY"8]Yg
nY][`hž`k`]Y`k`]W\`h][`Yg`]ghž`æZcfa`Uh]cbYb`a`]h`6YXUW\`h`ni
j`YfVfY]hYbž`]bgVYgcbXYfY`k`Ybb`X]Y`Dc`nY]`VYfY]hg`Y]bYb
8i`fW\`Vfi`W\`Yfn]Y`h`\`Uh"

æ`Y]bYf`NY]hž`]b`XYf`Xi`fW\`gc`n]U`Y`A`YX]Yb`i`bX`gW\`bY`Y`X][`]hU`Y
J`YfVfY]hi`b[`æZcfa`Uh]cbYb`fUgUbb`i`a`g]W\`[`fY]ZYbž`]ghYg`ZØf`X]Y
6Y\`ØfXYb`i`bYf`Àgg`]W\`ž`X]Y`?`cbhfc`Y`ØVYf`X]Y`B`UffU]j`Y`ni
VY\`U`hYb":`U`gW\`Y`cXYf`j`cfY][`Y`6Yf]W\`hYfghUhh`i`b[`_Ubb
dchYbn]Y`gW\`ÀX`]W\`gY]b`i`bX`X]Y`5fVY]h`XYf`Dc`nY]`VY\`]bXYfb"

8]Y`nØ][`Y`5i`Z`_Àfi`b[`XYg`J`cfZU`g`nk`]gW\`Yb`XYa`:`7`<`UbgU
F`cghcW`_i`bX`XYa`:`7`Gh`DUi``]ghY`h`g]W\`Yfž`XUgg`XUg`J`YfhfUi`Yb
nk`]gW\`Yb`XYf`Dc`nY]`i`bX`XYf`;`Ya`Y]bgW\`UZh`k`Y]hYf\]b[`YZØfXYfh
k`]fX"8]Y`6Yj`Ò`_Yfi`b[`]gh`Ui`Z[`Yfi`ZYbž`g]W\`k`Y]hYf\]b`U`_h]j`]b
G]W\`Yf\Y]hgVY`Ub[Yb`Y]bni`Vf]b[Ybž`XU`XYf`GW\`i`hn`XYf`6Øf[Yf
Y]bY[Ya`Y]bgUa`Y`J`YfUbhk`cfhi`b[`XUfghY`h"8]Y`: U`_hYb`gd`fYW\`Yb
ZØf`g]W\`:`8]Y`Ni`gUa`a`YbUfVY]h`nk`]gW\`Yb`XYf`Dc`nY]`i`bX`XYf
²`ZZYbh`]W\`_Y]h`_Ubb`]b`_f]h]gW\`Yb`A`ca`YbhYb`YbhgW\`Y]XYbX`gY]b"

9]bV`]W\`_]b`ni`_ØbZh][`Y`<`YfUi`gZcfXYfi`b[`Yb

8]Y'gW\ bY`Y`F YU_h]cb`Ui Z`X]YgYb`J cfZU`k]fZh`Ui W\ : fU[Yb`ni
ni _ØbZh][Yb`G]W\ Yf\ Y]hga U» bU\ a Yb`Ui Z`9g`]gh`Yb hgW\ Y]XYbXž
XUgg`Dc`nY]VY\ ÕfXYb`dfcU_h]j Y`A U» bU\ a Yb`Yf[fY]ZYbž`i a`X]Y
G]W\ Yf\ Y]h`VY]`[fc» Yb`A YbgW\ YbUbgUa a`i b[Ybž`]bgVYgcbXYfY
VY]`GdcfhYfY][b]ggYbž`ni`[Yk`À\ f`Y]ghYb`"8Yf`9]bgUhn`j cb
A cXYfUh]cb`i bX`8YYg_U`Uh]cbghU_h]_Yb`_ØbbhY`XUVY]`Y`ZYbž
J cfZÀ`Y`k]Y`X]YgYb`ni`j Yf\]bXYfb"

»b`NY]hYbž`]b`XYbYb`i; Yk`U`h`[Y[Yb`9]bgUhn`f`ZhY`Y]XYf`]a`a`Yf
k]YXYf`Y]b`H\ Ya`U`]ghž`V`Y]Vh`Yg`5i Z[UVY`j cb`Dc`nY]ž
G]W\ Yf\ Y]hgVY\ ÕfXYb`i bX`XYf`i; Ya`Y]bgW\ UZhž`Y]bY`?i`hi`f`XYg
FYgdY`hg`i bX`XYf`Ni`gUa`a`YbUfVY]h`ni`Z`ÕfXYfb`"9]b`Yffi`b[YbYf
9fZc`[ž`k]Y`]b`X]YgYa`i: U`ž`]gh`Y]b`GW\ f]h`i]b`X]Y`f]W\ h][Y`F]W\ hi`b[ž
XcW\`X]Y`5fVY]h`V`Y]Vh`VYghY\`Ybž`i a`À\ b`]W\ Y`J cfZÀ`Y`]b`Ni`_i`bZh
ni`j`Yfa`Y]XYb"

<]bhYf[fi bX]bZcfa Uh]cbYb`ni f
G]W\ Yf\ Y]hg`U[Y`VY]`i » VU`gd]Y`Yb

8]Y`G]W\ Yf\ Y]hg`U[Y`VY]`i » VU`gd]Y`Yb`]gh`Y]b`_ca`d`Yi`Yg`H\ Ya`Už
XUg`]b`XYb`Y`hnhYb`š\ fYb`ni`bY\ a`YbX`]b`XYb`i: c`_i`g`XYf
² ZYb`h]W\ _Y]h[YfØW_h]gh`"»b`8Yi`hgW\`UbX`[UV`Yg`a`Y\ fYfY
J cfZÀ`Y`ž`VY]`XYbYb`i: Ub`g`b]W\ h`bi`f`[Y[Yb`X]Y
G]W\ Yf\ Y]hg]`c`fgW\ f]ZhYb`j`Yfgh]Y» Ybž`gcbXYfb`Ui`W\`5[[fYgg]cbYb
[Y[YbØVYf`Dc`n]ghYb`nY][hYb`"8]YgY`G]h`i`Uh]cb`j`Yf`Ub[h`b`UW
Y]bYa`ghUf`Ya`G]W\ Yf\ Y]hg`cbnYdhž`i a`gck`c`\`X]Y`Ni`gW\ Ui`Yf`U`g
Ui`W\`X]Y`C`fXbi`b[g`f`À`ZhY`ni`gW\ Ø`hnYb`"J]Y`Y`J`YfY]bY`i`bX
G]W\ Yf\ Y]hgVY\ ÕfXYb`UfVY]hYb`Yb[`ni`gUa`a`Ybž`i a`d`f`À`j`Ybh]j`Y
A U» bU\ a`Yb`ni`Yb`hk`]W`_Y`b`i`bX`X]Y`i; YZÀ\ fXi`b[`k`À\ fYbX`XYf
Gd]Y`Y`ni`a`]b]a`]YfYb"

8]Y`6i`bXYgdc`nY]`gd]Y`h`Y]bY`nYbhfU`Y`F`c`Y`VY]`XYf
; Yk`À\ f`Y]ghi`b[`XYf`G]W\ Yf\ Y]h`k`À\ fYbX`gc`W\ Yf
J`Yf`Ub`ghU`hi`b[Yb`"8]Y`G`hfU`hY[]Y`i`a`ZUggh`i`bhYf`Ub`XYfYa`X]Y
Ni`gUa`a`YbUfVY]h`a`]h`c`_U`Yb`Dc`nY]X]YbghghY`Ybž`XYb`9]bgUhn
j`cb`J]XYcØVYfk`UW`i`b[`i`bX`X]Y`9]bgYhni`b[`j`cb`C`fXbYfX]YbghYbž
i`a`d`chYbn]Y`Y`G`h`Øfi`b[Yb`ZfØ\ nY]h][`ni`Yf`_Y`bbYb`i`bX`ni

i bhYfV]bXYb"8YbbcW\g]bX'JcfZÄ`Y'k]Y`XYf']b'FcgheW_k Y]hYf\]b
VYgcf[b]gYffY[YbX'i bX'nY][YbžXUgg'fY[Y'a Ä»][Y`GWi`i b[Yb
i bX`GhfUHY[]Yb'ni f'8YYg_U`Uh]cb`Xf]b[YbX`bchk YbX][`g]bX"

5_hi Y`Y`GhUh]gh]_Yb`ni `: i » VU`[Yk U`h

⇒ Y]bYf`Ghi X]Y`XYf'8Yi hgW\

Yb`: i » VU`!@[U`fB: @k i fXY`ZYgh[YghY`hžXUgg`X]Y`NU\`XYf
[Yk U`hgUa Yb'JcfZÄ`Y'fi bX'i a` : i » VU`gd]Y`Y`]b`XYf`GU]gcb
&\$&&#&\$&'`ja`JYf[`Y]W\`ni`XYb'Jcf`U\`fYb`nk Uf`Y]W\h
ni fØW_[Y[Ub[Yb`]ghž`YXcW`X]Y` ; Yk U`h[Y[Yb`9]bgUhn_fÄZhY
VYgcf[b]gYffY[YbX`V`Y]Vh`@Ui`h`XYb`9f`YVi`b[Yb`[UV`Yg]a
`YhnhYb`j\`f`ØVYf`%) \$`JcfZÄ`Y`žVY]`XYbYb`Dc`nY]VYUa`hY
Ub[Y[f]ZZYb`k`i`fXYb`"9]b` ; fc»hY]`X]YgYf` , VYf[f]ZZY`ZUbX`]b`XYf
BÄ`Y`XYf`GhUX]Yb`k`Ä`fYbX`cXYf`i`ba`]hY`VUf`bUW\`XYb`Gd]Y`Yb
ghUhh"8]YgY`8UhYb`j`YfXYi`h]W\Yb`X]Y`Bchk`YbX][`_Y]hž
G]W\Yf\Y]hg`c`bnYdhY`ghYhg`ni`ØVYfd`fØZYb`i`bX`Ubni`dUggYb"

Ni XYa`nY][h`Y]bY`l`a`ZfU[Y`i`bhYf` : i » VU`ZUbgžXUgg`Y]b
Yf\YV`]W\Yf`HY]`XYf`6YZfU[hYb`fYhk`U` \$i`É`Ub`XYf`A`Y]bi`b[
ZYgh\Ä`hžX]Y`G]W\Yf\Y]hga`U»bU\`a`Yb`gY]Yb`i`bni`fY]W\YbX`"8]Y
A`Y]bi`b[Yb`j`Uf]]YfYb`YXcW`ghUf`ž`i`bX`j`]Y`Y` : Ubg`Ya`dZ]bXYb`X]Y
A`U»bU\`a`Yb`U`g`ØVYfnc[Ybž`k`Ug`Ui`ZY]b`GdUbbi`b[gZY`X`nk`]gW\Yb
G]W\Yf\Y]hgVYXØfZb]g`i`bX`XYf`K`U\`fbY\`a`i`b[`j`cb`9]bgW\`fÄ`b`_i`b[
Xi`fW\` : Ubg`\]bXYi`hYh`

A U» bU\`a`Yb`ni`f`DfÄj`Ybh]cb`j`cb` ; Yk U`h

⇒ F`YU_h]cb`Ui`Z`JcfZÄ`Y`k`]Y`]b`FcgheW`_gYhnYb`j`]Y`Y
Dc`nY]VY\`ØfXYb`d`fÄj`Ybh]j`Y`A`U»bU\`a`Yb`]b`XYb`GhUX]Yb`i`bX`]a
l`a`ZY`X`XYf`J`YfUbgU`hi`b[gc`fhY`Y]b`"Ni`X]YgYb`[Y\`ØfYb`i`bhYf
UbXYfYa`Yf\`Ø\`hY`DfÄgYbn`j`cb`G]W\Yf\Y]hgdYfgcbU`ž`X]Y
, VYfk`UW\i`b[`Xi`fW\`8fc`\`bYb`i`bX`X]Y`A`Ö[`]W\`_Y]h`ZØf`6Øf[Yfž
j`YfXÄW\h][Y`5_hj`]hÄhYb`Ubc`bma`ni`a`Y`XYb`"8]Y`6i`bXYgdc`nY]
gck`]Y`c`_U`Y`G]W\Yf\Y]hgVY\`ØfXYb`UfVY]hYb`_cb]bi`]Yf`]W\`XUfUbž
GW\i`i`b[Yb`ZØf`]fY`A`]hUfVY]hYf`ni`j`YfVYggYfbž`i`a`]a` : U`Y`j`cb
?cbZ]_hYb`Ub[Ya`YggYb`fYU[]YfYb`ni`_ÖbbYb"

8 UfØVYf\]bUi g[]VhYg ð]h]Uh]j Yb'j cb': Ubdfc^Y_hYb'i bX
J YfY]bYbž'X]Y'g]W\ 'a]h'XYf'; Yk U`hd fÀj Ybh]cb`VY ZUggYb'i bX
j Yfgi W\Ybž'Y]b`dcg]h]j Yg`l a ZY`X`ZØf': i » VU`gd]Y`Y`ni `ZØfXYfb"
8 Uni `[Y\ ÒfYb`K cf_g\cdg'i bX`8]U`c[Zcfa UhY`nk]gW\Yb': Ubgž
J YfY]bYb'i bX`G]W\Yf\Y]hg_fÀZhYb"Gc`W\Y`A U» bU\ a Yb`_ÒbbhYb
XUni `VY]hfU[Ybž'XUg[Y[YbgY]h][Y`J YfghÀbXb]g`ni `ZØfXYfb'i bX`ni
Y]bYf`FYXi _h]cb`j cb`GdUbbi b[Yb`k À\ fYbX`XYf`Gd]Y`Y
VY]ni hfU[Yb`"

8]Y`DfcV`Ya Uh]_`XYf'; Yk U`h]a `: i » VU``V`Y]Vh`Y]b`Yfbgh\UZhYg
H\Ya Už'XUg`b]W\h`bi f`X]Y`G]W\Yf\Y]hg_fÀZhYž'gcbXYfb`Ui W\`X]Y
; YgY`gW\UZh`U`g; UbnYg`VYhf]Zh"Bi f`Xi fW\`Y]b`[Ya Y]bgUa Yg
J cf[Y\Yb`U`Yf`6YhY]`][hYb`_ÒbbYb`k]f`\cZYbž'X]Y`G]hi Uh]cb`ni
j YfVYggYfb'i bX': i » VU`gd]Y`Y`U`g`g]W\YfY`i bX`[YgY`][Y
J YfUbgU`hi b[Yb`Yf`YVYb`ni ` _ÒbbYb"

8 YhU]`g

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