

; Ygi bX\Y]hgj Yfgcf[i b['i bX`C fXYbh`]WXY
< Ui dhj YfgUa a `i b[`Ua `%) "'A U] &\$&('a]h
: f]YXf]WX `A Yfn

9fZU\ fYb`G]Y`a Y\ f`ØVYf`X]Y`C fXYbh`]WXY`< Ui dhj YfgUa a `i b[
XYg`6Dž`VY]`XYf`J YfhfYhYf`Ui g`Dc`h]_ž`K]fhgWX UZh`i bX
; Ygi bX\Y]hgk YgYb`ØVYf`X]Y`GhÅf`i b[`XYf
; Ygi bX\Y]hgk]fhgWX UZh`]b`8Yi hgWX`UbX`X]g`i h]YfYb"
: f]YXf]WX `A Yfn`k]fX`U`g`; UghfYXbYf`XUVY]`gY]b`"A Y`XYb`G]Y
g]WX`ni f`DfYggY`cbZYfYbn`Ub`i bX`bY`a Yb`G]Y`Ub`XYf
ÖZYbh`]WXYb`J YfUbghU`hi b[`]b`6Yf`b`hY]`"9fZU\ fYb`G]Yž
k Y`WX`Y`GW`f]hhY`i bhYfbca`a Yb`k YfXYb`a ØggYbž`i a `Y]bY
VYgha Ö[`]WXY; Ygi bX\Y]hgj Yfgcf[i b[`ni `[Yk Å\`f`Y]ghYb"
K Y]hYfY`čZcfa Uh]cbYb`i bX`5ba Y`Xi b[`]Yf"



; Ygi bX\Y]hgj Yfgcf[i b[`[Y`h`b]WX`h`U`Y]bY`"K Ug`k]f`a]h`UbXYfYb
DUfhbYfb`XYf`; Ygi bX\Y]hgk]fhgWX UZh`[Ya Y]bgUa `ZØf`8Yi hgWX`UbX
YffY]WXYb`k c`Ybž`X]g`i h]YfYb`k]f`a]h`J YfhfYhYf]bbYb`i bX
J YfhfYhYf`Ui g`Dc`h]_ž`K]fhgWX UZh`i bX`; Ygi bX\Y]hgk YgYb`]a
ÖZYbh`]WXYb`HY]`i bgYfYf`C fXYbh`]WXYb`< Ui dhj YfgUa a `i b[`Ua

%) "'A Uj'&\$&('"'A]h'XUVY]'gY]b'k]fX'Ui W'XYf'78I !DUFhY]!'i bX
: fU_h]cbgW'YZXYf'78I #7GI ' : f]YXf]W' 'A Yfn"

5`g`6i bXYgj YfVUbX`XYf`D\Ufa UnYi h]gW'Yb`ϕXi ghf]Y`Y"J"'f6D±
j YfhfYhYb`k]f`X]Y`ϕhYfYggYb`j cb`fi bX`&*\$`I bhYfbY\`a Yb` `g]Y
ZcfgW'Ybž`Ybhk]W_Y`bž`dfcXi n]YfYbž`j YfhfY]VYb`i bX`j Yfa Uf_hYb
5fnbY]a]hhY`cXYf`gcbgh][Y`d\Ufa UnYi h]gW'Y`9fnYi [b]ggY`]b
8Yi hgW'`UbX`i bX`9i fcdU"

5i ZXYf`DfYggY`cbZYfYbn`Yf`Ai hYfh`XYf`6D±J cfg]hnYbXYž`C`]] Yf
?]fghž`k Y`W'Y`F c`Y`XYf`6D±XUVY]'gd]Y`hž`Y]bY`ghUf_Y
; Ygi bX\Y]hgk]fhgW'UZh]b`8Yi hgW'`UbX`ni `Z0fXYfbž`i a`XYb
D\Ufa UghUbXcfh`8Yi hgW'`UbX`#9i fcdU`k YhhVYk YfVgZ\][`i bX
ni `i bZhgZ\][`ni `a UW'Yb"

K]f`UXYb`G]Y`ni f`DfYggY`cbZYfYbn`Y]bž`Ua`%) "'A Uj'&\$&('.

`NY]h`%'`%) `I \f` `%'`.() `I \f
`Cfh`Jcf`Cfh`cXYf`j]U`NCCA

6]hhY`a Y`XYb`G]Y`g]W'`dYf`9!A U]`Ub`dfYggY4 Vd]"XY`Ub`i bX`hY]`Yb
G]Y`i bg`a]hž`cV`G]Y`j cf`Cfh`cXYf`X][]hU`hY]`bY\`a Yb`a 0W'hYb`"8]Y
9]bk U\`XUhYb`Z0f`X]Y`j]fhi Y`Y`HY]`bU\`a Y`fNcca Ł`Yf\`U`hYb`G]Y
fYW'hY]h]["

⇒a`JcfUi g`XYf`DfYggY`cbZYfYbn`UXYb`k]f`G]Y`\Yfn`]W'ni a
0ZYbh]W'Yb`HY]`XYf`6D±<Ui dhj YfgUa a`i b[`j cb`\$-`.\$\$`V]g`%'`.\$\$
I \f`]b`XYf`HY`Y`ca`<Ui dhghUXhfYdf`AgYbhUbnž` : fUbn0g]gW'Y
GhfU» Y`' `U` `Wž`%\$%%+`6Yf`]b`Y]b"

5a`Jcfa]hU[`k]fX`i bhYf`UbXYfYa` : f]YXf]W' `A Yfn`gdFYW'Yb`"⇒a
5bgW'`i gg`X]g_i h]Yfh`C`]] Yf`?]fghž`6D±J cfg]hnYbXYfž`a]h`DfcZ`8f"
5`YbU`6i ml`fDfcZYggcf]b`Z0f`9h_]`XYf`A YX]n]b`i bX
; Ygi bX\Y]ghYW'bc`c[]Ybž`HI `A 0bW'YbŁ`i bX`; UVf]Y`Y`F Y[]bU
Cj Yfk]Yb]b[`fDf`Ag]XYbh]bž`5685` `6i bXYgj YfY]b][i b[`8Yi hgW'Yf
5dch\Y`_Yfj YfV`AbXY`Y"J`"Ł`XUf0VYfž`k Y`W'Y`GW'f]hhY`Y`hnh
i bhYfbca a Yb`k YfXYb`a 0ggYbž`i a`Y]bY`ghUf_Y
; Ygi bX\Y]hgk]fhgW'UZh]b`8Yi hgW'`UbX`ni `Z0fXYfb`i bX`Y]bY

VYgha Ò[`]WXY ; Ygi bX\Y]hgj Yfgcf[i b[`ni `[Yk Å\fY]ghYb"

6Y]`XYf`DcX]i a gX]g_i gg]cb` ; Ygi bX\Y]hgj Yfgcf[i b[`[Y\h`b]W\h
U`Y]b `gdfYW\Yb`5bbY!?!U\h]b`?`Ya a `f] c fghÅbX]bž`6??

8 UW\j YfvUbX`Y`J "Ł`8 f" `9`Yb`@ bXYfg\Ui gYb`f]]nYdfÅg]XYbh]bž
6i bXYgÅfnhY_Ua a Yf` `6Y? Łi bX`#]g`D`Ò[Yf`fA]h[`]YX`XYf
<Ui dh[YgW\ÅZhgz\ fi b[ž`6i bXYgj YfvUbX`XYf`8Yi hgW\Yb`#Xi ghf]Y
Y``J`` `68 Ł`a]h`C`j] Yf`?]fgh`XUfØVYfž`k Ug`g]Y`[Ya Y]bgUa `ZØf
8Yi hgW\`UbX`YffY]W\Yb`k c``Yb"

#`XYf`Zc`[YbXYb`HUVY``Y`Z]bXYb`G]Y`XYb`Dfc[fUa a UV`Ui Z`XYf
J YfUbghU`hi b[.

p`NY]h]p`Dfc[fUa a di b`_h]p

p ` `!p ` `p
p`\$- .\$\$` ` \$- .%) `p`9fØZZbi b[`i bX`6Y[fØ»i b[`Xi fW\`XYb`6D#
J c fg]hnYbXYb`p

p`\$- .%) ` `%. \$ \$`p`F`YXY`j`cb`:`f]YXf]W\`A`Yfn`p
p`%\$. \$ \$` `%%. \$ \$`p`8]g_i gg]cb.`G\W]f]hY`ni`f`:`ØfXYfi b[`XYf
; Ygi bX\Y]hgk]fhgW\UZh

p`%\$. \$ \$` `%%.` \$`p`? UZZYdUi gY`p
p`%&.` \$` `%&.` \$`p`DcX]i a gX]g_i gg]cb.`; Ygi bX\Y]hgj Yfgcf[i b[
[Y\h`b]W\h`U`Y]b`p
p`%&.` \$` `%. \$ \$`p`5VgW\`i`gg`i`bX`5i`gV`]W_`p

Ÿ`hnh`Uba`Y`XYb`ni`a`^2`ZZYbh]W\Yb`J`YfUbghU`hi`b[`ghY]`XYf
C`fXYbh]W\Yb`6D#<Ui`dhj`YfgUa`a`i`b[`"

6Y]`F`ØW_ZFU[Yb`k`YbXYb`G]Y`g]W\`V]hY`Ub`dfYggY4`Vd]"XY"

6Yf`]bYf`; Ygi bX\Y]hgk YgYb`i`bX`D\Ufa`UghUbXcfh`8Yi`hgW\`UbX.
9]bY`#]h]Uh]j`Y`ni`f`GhÅf`_i`b[`XYf`; Ygi bX\Y]hgk]fhgW\UZh

8 Ug`6Yf`]bYf`; Ygi bX\Y]hgk YgYb`]gh]j`cb`\c\Yf`6YXYi`hi`b[`ZØf`X]Y
[YgUa`hY`GhUXh`i`bX`X]Y`XUf]b``YVYbXYb`A`YbgW\Yb``I`a
g]W\Yfni`ghY``Ybž`XUgg`X]Y`6Yj`Ò`_Yfi`b[`Y]bY`VYgha`Ò[`]WXY
; Ygi bX\Y]hgj Yfgcf[i b[`Yf\Å`hž]gh`X]Y`Ni`gUa`a`YbUfVY]h`ink`]gW\Yb
j`YfgW\]YXYbYb`DUfhbYfb`XYf`; Ygi bX\Y]hgk]fhgW\UZh]j`cb`[`fc»Yf

6YXYi hi b["

8Yf'6i bXYgj YfVUbX'XYf'D\Ufa UnYi h]gWXYb'X'ghf]Y'Y"J" f6D±
j Yfhf]hh'X]Y' hYfYggYb'j cb'fi bX'&* \$'I bhYfbY\ a Ybž'X]Y'jb
8Yi hgW'UbX'i bX'9i fcdU'5fnbY]a]hY'cXYf'UbXYfY
d\Ufa UnYi h]gWXY'9fnYi [b]ggY'YfZc fgWXYbž'Ybhk]W_Y'bž
dfcXi n]YfYbž'j YfhfY]VYb'i bX'j Yfa Uf_hYb"8Yf'J YfVUbX'gYhnh]g]W
Z0f'X]Y': 0fXYfi b['Y]bYf'ghUf_Yb'; Ygi bX\Y]hgk]fhgW UZh'Y]bž'i a
XYb'D\Ufa UghUbXc fh'8Yi hgW'UbX'9i fcdU'k YhVYk YfVgZ\]['i bX
ni _i bZhgZ\]['ni 'a UWXYb"

æ 'FU\ a Yb'XYf'C fXYbh]WXYb'<Ui dhj YfgUa a 'i b['XYg'6D=k]fX
Ua '%' "A U] &\$&('j b'6Yf'j b'0VYf'X]Y'Fc'Y'XYg'J YfVUbXg'j b'XYf
GhÅf_i b['XYf'; Ygi bX\Y]hgk]fhgW UZh'X]g_i h]Yfh' Dfca]bYbhY
; ÅghY'k]Y': f]YXf]W' A Yfnž'78I !DUfhY]! 'i bX': fU_h]cbgWYZXYf
78I #7GI ž'k YfXYb'Yfk UfhYh": f]YXf]W' A Yfn'k]fX'Y]bY'FYXY'\U'hYb
i bX'C'j Yf'?]fghž'XYf'J cfg]hnYbXY'XYg'6Dž'k]fX'[Ya Y]bgUa 'a]h
9I dYfh]bbYb'i bX'9I dYfhYb'Ui g'XYf'; Ygi bX\Y]hgVfUbWXY'XUf0VYf
X]g_i h]YfYbž'k Y'WXY'GWf]hY'Yhnh'i bhYfbca a Yb'k YfXYb'a 0ggYbž
i a 'Y]bY'ghUf_Y'; Ygi bX\Y]hgk]fhgW UZh'j b'8Yi hgW'UbX'ni 'Z0fXYfb
i bX'Y]bY'VYgha 0['WXY'; Ygi bX\Y]hgj Yfgcf[i b['ni
[Yk Å\ f'Y]ghYb"

8]Y'J YfUbgH'hi b['Z]bXYh'j b'XYf'HY'Y_ca ' <Ui dhghUXhfYdfÅgYbhUbn
]b'6Yf'j b'ghUhh'i bX'VYghY'h'Ui g'Y]bYa '0ZZYbh]WXYb'HY]'ž'ni 'XYa
æi fbU'ghYb'i bX'UbXYfY' hYfYgg]YfhY'Y]b['Y'UXYb'g]bXž'gck]Y
Y]bYf'DfYggY_cbZYfYbn"9]bY'5ba Y'Xi b['dYf'9!A U]'Ub
dfYggY4 Vd]"XY'jgh'YfZc fXYf'W"

8]Y'HY]'bY\ a Yf'\UVYb'X]Y'A 0['WXY_Y]hž'j cf'C fh'cXYf'X][]hU'j]U
Ncca 'hY]'ni bY\ a Yb"8]Y'9]bk U\ 'XUHYb'Z0f'X]Y'X][]hU'Y'HY]'bU\ a Y
k YfXYb'XYb'Ub[Ya Y'XYhYb'DYfgcb'nY]hbU\ 'a]h[YhY]'h"

8]Y'J YfUbgH'hi b['V]YhYh'X]Y'A 0['WXY_Y]hž'9]bg]WXYhYb'j b'X]Y
<YfUi gZc fXYfi b[Yb'i bX'7\UbW' b'XYf'; Ygi bX\Y]hgk]fhgW UZh'j b
8Yi hgW'UbX'ni '[Yk]bbYb'i bX'a 0['WXY '@0gi b[gUbgÅhnY'ni
X]g_i h]YfYb"9]bY'ghUf_Y'; Ygi bX\Y]hgk]fhgW UZh'hfÅ[h'XUni 'VY]ž
XUgg'X]Y'6Yj 0_Yfi b['Y]bY'cdh]a U'Y'; Ygi bX\Y]hgj Yfgcf[i b[

Yf\À`hi bX`XYf`D\Ufa UghUbXcfh8Yi hgW\`UbX`k Y]hYf\]b
]bhYfbUh]cbU`_cb_i ffYbnZÀ\[`]gh"

9]bY`XYhU]``YfhY`HUVY``Y`a]h`XYa `Dfc[fUa a UV`Ui Z`XYf
J YfUbghU`hi b[`]gh`Ui Z`XYf`K YVg]hY`XYg`6D=ni `Z]bXYb"
=bhYfYgg]YfhY`_ÒbbYb`g]W\`Yhnh`Uba Y`XYbž`i a `Ua `ÒZYbh`]W\Yb
J YfUbghU`hi b[ghY]`XYf`C fXYbh`]W\Yb`6D≠<Ui dhj YfgUa a `i b[
hY]`ni bY\`a Yb``6Y]`k Y]hYfYb`: fU[Yb`_ÒbbYb`g]W\`æi fbU`]ghYb`Ub
dfYggY4 Vd]"XY`k YbXYb"

E i Y`Y.`6D=6i bXYgj YfVUbX`XYf`D\Ufa UnYi h]gW\Yb
=bXi ghf]Y`#chg

8YhU]`g

6Ygi W\Yb`G]Y`i bg`Ui Z.`a Y]b!VYf`]b"bYh