

NYi [Yb [Ygi W\ h. l bVY_UbbhYf
VYgW\ \X][h'Ga Ufh']b 'A U]bn'i bX'Z\ØW\ hYh

⊕ 'A U]bn'j Yfi fgUW\ hY 'Y]b' l bVY_UbbhYf'gW\ k YfYb'GW\ UXYb
Ub'Y]bYa 'Ga Ufh'i bX'Zc\ 'j ca ' l bZU``cfh" 'Dc`nY] 'gi W\ h
NYi [Yb"

A U]bn'jgh'Ua 'GcbbhU[a cf[Yb'NYi [Y'Y]bYg' l bZU``g' [Yk cfXYbž'XYf
: fU[Yb' i bX'Gcf[Yb'Ui žk]fZh" '9]b'gW\ k UfnYf'Ga Ufh'a]h'Y]bYa
[Y'VYb'8UW\ 'i bX'a Uf_UbhYb' [Y'VYb'GY]hYbgd]Y[Y'b'k i fXY
gW\ k Yf'VYgW\ \X][h'Ub'XYf'9]ba ØbXi b['j cb'K]\Y'a !A UmVUW\!
GhfU» Y' i bX'8Y_Ub!@U]gh!GhfU» Y' [Yž bXYb" '8Ug'5i hcž'XUg']b'XYf
GhUXh'gY\ f'Ui ZŽ`][']ghž'ghUbX'ni a 'NY]hdi b_h'XYf'9bhXYW_i b[
ghUf_'fUa dcb]Yfh'XU"

8Yf'GW\ UXYb'Ua ' : U\fnYi [']gh'Yf\YV`]W\ " '8]Y'fYW\ hY'GY]hY'XYg
Ga Ufhg'k i fXY'gc'ghUf_']b'A]h'Y]XYbgW\ UZh' [Ync [Ybž'XUgg'X]Y
GW\ Y]VY'XYf'6Y]ZU\ fYfhØf'nYfVfcW\ Yb' i bX'X]Y'HØf'gY'Vgh
Y]b[YXfØW_h'k i fXY" 'Ni XYa 'k i fXY'XYf'K U[Yb'Xi fW\ 'XYb'5i ZdfU``
gY]h']W\ [Y[Yb'XYb'6cfXghY]b'j YfgW\ cVYb" '8cW\ 'hfc'h'XYg
cZŽbg]W\ h']W\ Yb'5i ga U» Yg'XYg' l bZU``gž'V`]YV'XYf'J Yfi fgUW\ Yf
i bVY_Ubbh' i bX'Zc\ 'j ca ' l bZU``cfhž'c\ bY'g]W\ 'i a 'XYb
Ub[Yf]W\ hYhYb'GW\ UXYb'ni ' _Øa a Yfb"

8YhU]`g'ni a ' l bZU``

8]Y'Dc`nY]]bgdY_h]cb'A U]bn' ']gh'bi b'Ui ZXYf'Gi W\ Y'bUW\
NYi [Yb" '5i Z]\fYf'Gi W\ Y'bUW\ '⊕Zcfa Uh]cbYb'V]hYh'g]Y'X]Y
6Yj Ø_ Yfi b['i a 'A]h\]Z' " »XYfž'XYf'Yhk Ug'ØVYf'XYb'J cfZU``k Y]»
cXYf'XYb' l bZU``VYcVUW\ hYh'\Uhž'_Ubb' i bhYf'XYf'HY'YZcbbi a a Yf
\$*%' %*) (' %\$ '<]bk Y]gY' [YVYb" '9g']gh'b]W\ h'bi f'k]W\ h[ž'XYb
J Yfi fgUW\ Yf'ni f'F YW\ YbgW\ UZh'ni 'n]Y\Ybž'gcbXYfb'Ui W\

g]W\Yfni ghY`Ybž`XUgg`gc`Yhk Ug`b]W\h`k]YXYf`dUgg]Yfh"

8Yf`JcfZU`k]fZh`Y]b`@]W\h`Ui ZY]b`k Y]hj YfvfY]hYhYg`DfcV`Ya`]b
j]Y`Yb`Gh`XhYb. `5i hcZU\fyfž`X]Y`bUW`i bZ`Y`b`Z]Y`Ybž`UbghUhh
]\fy`JYfUbhk cfhi b[`k U\fn`i bY`a Yb`"Gc`W\Y`HUH`Yb`_`ÖbbYb
gck c`\`XYb` ; YgW`X] [hYb`U`g`Ui W`X]Y`Y] [Ybh]W`i bgW`i`X] [Yb
6YhY] [hYb`Yf\YV`]W`VY`UghYb`" `b`X]YgYa` : U`k`i fXY`Y]b
VYgcbXYfYg`5i [Yba Yf`_`Ui Z`XUg`Ui Z`Z` [Y`8Yg] [b`XYg`Ga Ufhg
[Y`Y [hž`k Ug`Yg`Yf`Y]W`hYfb`_`ÖbbhYž`NYi [Yb`ni`Z]bXYbž`X]Y
a`Ö [`]W`Yfk`Y]gY [YbUi`XUg`5i hc`cXYf`XYb`i bZU`gY`Vgh [YgY`Yb
\UVYb"

2 ZZYbh`]W\Y`<]`ZY`]gh` [YZfU [h

8]Y`Dc`nY]`a UW\h`XYi h]W\ž`k]Y`k]W`h] [`X]Y`A]h\]`ZY`XYf`6Øf [Yf`]b
gc`W`Yb`5b [Y`Y [Yb`Y]hYb`]gh`Cvk c`\`Yg`j]Y`Y : Ä`Y` []Vhž`]b`XYbYb
; Y [bYf`i bX`NYi [Yb`ni fØW`_`U`hYbX`g]bXž`_`ÖbbhY`]b`X]YgYa
gdYn]Y`Yb` : U`X]Y`<]`ZY`XYf`2 ZZYbh`]W`_`Y]h`YbhgW`Y]XYbX`gY]b`" `a
NY]hU`hYf`j cb`G]W`Yf`Y]hg`Ua YfUg`i bX`gcn]U`Yb`A YX]Yb`]gh`Yg
Y]bZUW`Yf`XYbb`Yž`bZcfa Uh]cbYb`ni`gUa a Y`b`i bX`g]Y`gW`bY`
k`Y]hYfni [YVYb"

CV`Xi fW`Y] [YbY`6YcVUW`hi b [Yb`cXYf`Xi fW` ; Ygdf`W`Y`]b`XYf
BUW`VUfgW`UZhž`YXYf`<]bk`Y]g`_`ÖbbhY`XUni`VY]hfU [Ybž`XYf`Dc`nY]
ni`Y`ZYb`i bX`XYb`GW`UXYb`Yb`k`YXYf`Ub`XYa` : U\fnYi [`cXYf`Ui`g
k`Y]hYfYb`JcfZ`Y`b`]b`XYf`Ni`_`i bZh`Ybh [Y [Ybni`k]f`_`Yb`"8Ug ; YZØ\`
XYf` ; Ya`Y]bgW`UZh]gh`VYgcbXYfg`k]W`h] [ž`i`a`Y]b`g]W`YfYg`i`a`ZY`X
ZØf`U`Y`JYf`_`Y`fghY]`bY`a`Yf`ni`gW`UZZYb"

CV`X]Y`Dc`nY]`Y`h`h]W`X`Yb`j`Yfi`bZU`hYb`5i`hcZU`fyf`Yfa`]hY`b
_`Ubbž`\`Äb [h`a`U» [YV`]W`j`cb`XYb`bZcfa`Uh]cbYb`UVž`X]Y`g]Y`Ui`g
XYf`5` [Ya`Y]b`Y]h`Yf`\`Ä`h`8]Y`gW`bY`Y`FYU`_`h]cb`i`bX`XUg`<`UbXY`b
XYf`5bk`c`bYf`k`YfXYb`]b` : Ä`Yb`k`]Y`X]YgYa`c`Zh`U`g`Z`bXUa`YbhU`Y
GW`f]hY`VYhfUW`hYh"

8]Y`GW`k`YfY`XYg`GW`UXYbg`Ua` : U\fnYi [`]gh`b]W`h`ni
i`bhYfgW`Ä`hYb`i`bX`_`ÖbbhY`Ui`W`fYW`h]W`Y`?`cbgYei`YbnYb`ZØf
XYb` : U\fyf`bUW`g]W`n]Y`Y`bž`gc`hY`Yf` [YZ`bXYb`k`YfXYb`" : U\fyb

c\bY`J Yfg]W\Yfi b[ggW\i hn`cXYf`F ØW_a Y`Xi b[`bUW\`Y]bYa `I bZU``
k]fX`b]W\h`bi f`[YgY``gW\UZh`]W\ž`gcbXYfb`Ui W\`fYW\h`]W\`Yfbgh
[Ybca a Ybž`k Ug`ZØf`XYb`:`ØW\hYbXYb`Y]bY`ni gÅhn`]W\Y
DfcV`Ya Uh]_`XUfghY``Yb`_ØbbhY"

8i fW\`XUg`5i ZVf]b[Yb`XYf`5i Za Yf_gUa _Y]h`Ui ZX]YgYb`:`U``\cZh
a Ubž`XUgg`c`_U`Y`J Yf`_Y\fgXY`]_hY`VYggYf`j YfZc`[h`k YfXYb`_ØbbYb
i bX`X]Y`6Øf[Yf`J YfUbhk cfhi b[`ZØfY]bUbXYf`ØVYfbY\`a Yb``A]h
j YfY]bhYb`?fÅZhYb`_Ubb`XYf`J cfZU``Yj Ybhi Y``gW\bY``[Y`_Åfh
k YfXYbž`i bX`X]Y`HÅhYf`a ØggYb`g]W\`j\fyf`J YfUbhk cfhi b[`ghY``Yb"

8]Y`dc`nY`]W\Yb`9fa]h`i b[Yb`g]bX`]a `; Ub[Yž`i bX`XYf`:`c`_i g
`]Y[h`XUfUi Zž`k Y]hYfY`8YhU]`g`ØVYf`XYb`J cfZU``ni `gUa a Y`b``9g
V`Y]Vh`UVni k UfhYbž`cV`8UhYb`j cb`,`VYfk UW\i b[g`_Ua YfUg`cXYf
5i [YbnYi [Yb`XUni `ZØ\fyb`k YfXYbž`XUgg`XYf`I bVY`_UbbhY
]XYbh]Zn]Yfh`k]fX``8 Ug`_hYfYggY`i bX`XYf`9]bgUhn`XYf
; Ya Y]bgW\UZh`_ØbbhYb`_\]Yf`Y]bY`GW\`ØggY`fc``Y`gd]Y`Yb"

8 YhU]`g`ni a `J cfZU``

8Yf`J cfZU``YfY][bYhY`g]W\`Ua `GcbbhU[ž`XYa`%) ``C`_hcVYf`&\$&`ž
[Y[Yb`%\$.`\$`I` \f``B UW\`YfghYb`6Yf]W\hYb`XYf`Dc`]nY]`gW\]Yb`XUg
: U\fnYi [`k`Å\fybX`XYg`I bZU``g`Ub`XYf`9]ba ØbXi b[`K`]Y`a`!
A UmVUW\!GhfU» Y`i bX`8Y`_Ub!@U]gh!GhfU» Y`ghUf`_VYUbgdfi W\h
k cfXYb`ni `gY]b``8]Y`Åi » YfYb`A Yf`_a U`Y`XYg`VYgW\ÅX][hYb
: U\fnYi [g`g]bX`Ui ZÅ``][`Y]b`gW\k UfnYf`Ga Ufh`a]h`Y]bYa` [Y`VYb
8UW\`i bX`[Y`VYb`GY]hYbgd]Y[Y`bž`k Ug`a Ø[`]W\Yfk Y]gY`Ui ZY]bYb
VYgcbXYfYb`:`Ufvk`i bgW\`cXYf`gdYn]Y``Y`5bdUggi b[Yb`XYg
6Yg]hnYfg`\]bk Y]gh"

8Yf`I bZU``\Yf[Ub[`XYi hYh`XUfUi Z\]bž`XUgg`Yg`g]W\`i a`Y]bYb
Yf\YV`]W\Yb`5i ZdfU``[Y\UbXY`h`\UVYb`a`i ggž`XYf`b]W\h`bi f`X]Y
6Y]ZU\fyfhØfž`gcbXYfb`Ui W\`X]Y`:`U\fnYi [ghfU» Y`i bX`X]Y`Dcg]h]cb
XYg`Ga Ufh`Ua`6cfXghY]b`VYY]bhfÅW\h][h`\Uh``Gc`W\Y
Jcf`_ca`a`b]ggY`g]bX`b]W\h`bi f`Åf[Yf`]W\`ZØf`X]Y`6YhfcZYbYbž
gcbXYfb`Ui W\`fYW\h`]W\`dfcV`Ya Uh]gW\`ZØf`XYb`ZØW\h][Yb
J Yfi fgUW\Yf"

F YW h]W Y ? cbgYe i YbnYb

8 Ug i bYf`Ui VhY`J Yf`UggYb`XYg`l bZU`c fhgž`Ui W`VY`Ubbh`U`g
: U\fyfzi W hž`]gh`[Ya`À»`z`%(`&`XYg`GhfUZ`YgYhnVi W`Yg`]b
8 Yi hgW`UbX`ghfUZVUf`"8]Y`GhfUZYb`ZØf`: U\fyfzi W h`_ÒbbYb`j cb
; Y`XghfUZY`V]g`\\b`ni`Y]bYf`: fY]`Y]hgghfUZY`j cb`V]g`ni`XfY]`↘\fYb
fY]W`Ybž`]bgVYgc bXYfY`k Ybb`DYfgc bYbgW`UXYb`cXYf`Yf`YV`]W`Yf
GUW`gW`UXYb`j Yfi fgUW`h`k`i`fXY`"5i W`XYf`J`Yf`i`gh`XYf
: U\fyf`Ui`Vb]g`]gh`Y]bY`a`Ò[`]W`Y`?`cbgYe i Ybn`ZØf`XYb
l bZU`j`Yfi`fgUW`Yf`"

: Øf`XYb`; YgW`ÀX][`hYb`]gh`Yg`j`cb`[`fc»`Yf`6YXYi`hi`b[`ž`6Yk`Y]g`Y`ni
gUa`a`Y`b`i`bX`a`Ò[`]W`Y`NYi`[`Yb`ni`Z]bXYbž`i`a`XYb`J`cfZU`"VY]`XYf
Dc`nY]`ni`a`Y`XYb`"8]Y`9fa`]hhi`b[`Yb`XYf`Dc`nY]`g]bX
Yb`hgW`Y]XYbXž`i`a`XYb`J`Yfi`fgUW`Yf`ni`]XYbh]Zn]YfYb`i`bX
fYW`h]W`Y`GW`f]hY`Y]bni`Y]hYb`"8Yf`: U`"U`h`Ui`W`X]Y`6YXYi`hi`b[
j`cb`NYi`[`Yb`Ui`Zfi`ZYb`]b`XYf`^2`ZYbh]W`_Y]h]Yfgh`Àf`hž`i`a`<]bk`Y]gY
ni`gUa`a`Y`b`"

5` `[Ya` Y]bY`GhUh]gh]_Yb`ni`J`Yf`_Y`f`gi`bZ`À`Y`b

8]Y`i`bZU`ghUh]gh]_`nY][`hž`XUgg`J`Yf`_Y`f`gi`bZ`À`Y`]b`gh`À`Xh]gW`Yb
; YV]YhYb`\\Ài`Z][`j`cf`_ca`a`Yb`"@Ui`h`XYa`**GhUh]gh]gW`Yb**
**6i`bXYgUa`h`YfY][`bYhYb`g]W`]a`↘\f`&\$&&`Vi`bXYgk`Y]h`ØVYf`&ž`
A`j`]cbYb`J`Yf`_Y`f`gi`bZ`À`Y`ž`k`cVY]`a`Y`f`U`g`"\$\$\$`XUj`cb
GUW`gW`ÀXYb`k`UfYb`"8]Y`NU`"XYf`: U\fyfzi`W`hYb`\\Uh]b`XYb
`YhnhYb`↘\fYb`ni`[`Ybca`a`Ybž`k`Ug`ni`Y]bYf`gh`Àf`_YfYb
`VYfk`UW`i`b[`Xi`fW`X]Y`Dc`nY]`i`bX`j`YfgW`ÀfZhYb`GhfUZYb`[`YZØ`fh
`Uh`"**

⇒`↘\f`&\$&%`k`i`fXYb`VY]gd]Y`gk`Y]gY`ØVYf`"\$\$\$`:`À`Y`j`cb
: U\fyfzi`W`h`]b`8Yi`hgW`UbX`fY`[`]ghf]Yfh`"8]YgY`\\c`Y`NU`"nY][`hž
k`]Y`k`]W`h][`Yg`]ghž`XUgg`X]Y`^2`ZYbh]W`_Y]h`ØVYf`X]Y`fYW`h]W`Yb
: c`[`Yb`]bZcfa`]Yfh`k`]fX`i`bX`U`_h]j`XUni`VY]hf`À[`hž`gc`W`Y`GhfUZhUhYb
ni`a`Y`XYb`i`bX`Ui`Zni`XYW`_Yb`"

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