





# 7 cbhYbhg

hfcXi Wcb ..... \*

FYUHX 8cW a Ybhg ..... \*

7 jWc HA G Cj Yfj Jk ..... /

K YV DU[ Y: YUhi fYg UbX @Unci h ..... /

A UbU[ Y 8]U`D`Ub .....%#+  
.Dfcj ]g]cb]b[ .....%#  
7 cbZ[ i fU]cb'6UW\_i d .....%&+  
7 cbZ[ i fU]cb`HYa d`UHYg .....%&,  
GngHYa 1 d[ fUXY .....% &  
Di f[ Y`GngHYa g .....% )  
9j Ybh



hfcXi W]cb

7]gWc HY'YDFYgYbWV'A UbU[ Ya YbhGi ]HY'fV ]gWc HA GE'YbUV'Yg'mci



# 7 ]gWc HA G'Cj Yfj ]Yk

H\]g'WXUdhYf'dfcj ]XYg'U'g\cfh]bfccXi W]cb'hc'hY WcFY Zi bW]cbU']micZ7 ]gWc HA G'UbX'U'k U'\_h'fci [ \ 'cZHY'a U]b'  
Y'Ya Yb]g'cZHY'k YV



I gYf'      =a U[ Y  
]bHfZUW'  
Y`Ya Ybh

I gYf`  
]bhYfZUVW`  
Y`Ya Ybh

≈a U[ Y

8YgW]dhcb

@lghg



Mci`

## DcfHJ

H\Y'dcfHJ`dU[ Y' d'fcj ]XYg'Ub'cj Yfj ]Yk 'cZfH\Y'gHh'g'cZfH\Y'j ]XYcVt'bZYfYbW]b[ 'bYfk cf\_"

## GngH\Ya g

H\]g'gYW]cb'cZfH\Y'dU[ Y''gH'g'cZfH\Y'X]ZYfYbhHm'dYg'cZgngH\Ya g'HUhUfY'fY[ ]ghY'fYX' ]b'7 ]gVt'HA G"

9UW\ 'gngH\Ya 'Hm'dY' ]g''b\_YX'hc'U'GngH\Ya g'2'BUj ][ Uhc'f'dU[ Y''Znci 'W]W'cb'Zc'f'YI Ua d'Y'9bXdc]bhg'z'H\Y'GngH\Ya g'2'  
BUj ][ Uhc'f'dU[ Y' ]g'cdYbYX' ]b'Zc'XYf'j ]Yk 'gc'f'H\X'Vm'GngH\Ya '7'UH\ ]c'f'n'z'g\ck ]b[ 'U''h\Y'YbXdc]bhg' ]b'7 ]gVt'HA G"

: cf'XYHJ]g'z'gYY 'BUj ][ Uhc'f'z'dU[ Y' ) - "

## H]W\_Yhg

H\]g'gYW]cb'Vt'cbHJ]bg'U''ghcZgngH\Ya g[ fci dYX'Vm'h\Y]fi ddYfa cgh]W\_Yh'Yj Y'"

Bch' h\UhYUW\ 'gngH\Ya ' ]g'cb'mVt'i bh'X'cbW' Yj Yb'h'ci [ \ ]ha Um\Uj Y'a cfY''ck Yf' 'Yj Y'



BchY hUh

- s H\Y'gYfj Yf'X]g\_'gdUW'" '5 h]W\_Yhk ]`VY fU]gYX ]Z`Ygg'h.Ub`%\$i 'ZY'Y'gdUW' ]g'Uj U]'UV`Y"
  - s H\Y XUHUVUgY'g]nY'" '5 h]W\_Yhk ]`VY fU]gYX ]Z'h Y XUHUVUgY ]g'Uh- \$i 'dZ'h.Y'
-

GYh]b[ i d'7 ]gWc'HA G

5g

9bHyf]b[ FY`YUgY?YngDcgh=bgHJ`Uh]cb

=Zbc`



s I gYf'; fci dg\Uj Y'dYfa ]gg]cbg'hc Wtbfk`k \jW' dcfh]cbg#ZYUhi fYg'cZ7 ]gWt' HA G'U'

Mci 'WU6 'WYUHY 'UXX]hcbU'

7]gWc`7c`UVcfUhc'b'A YYh]b[ Fcca g<mVf]X

: cfVcc\_]b[g'k ]h`K YV9l 'tc:k cf\_ž'hY i gYf

BYtk cf\_

5Xj UbVWX'BYtk cf\_ Hc'  
GYttjb[ g

GYh 7 ]gWc HA G  
7 cbZYfYbWg`  
Ug`GYW`fY`Vm  
8YZUj`h

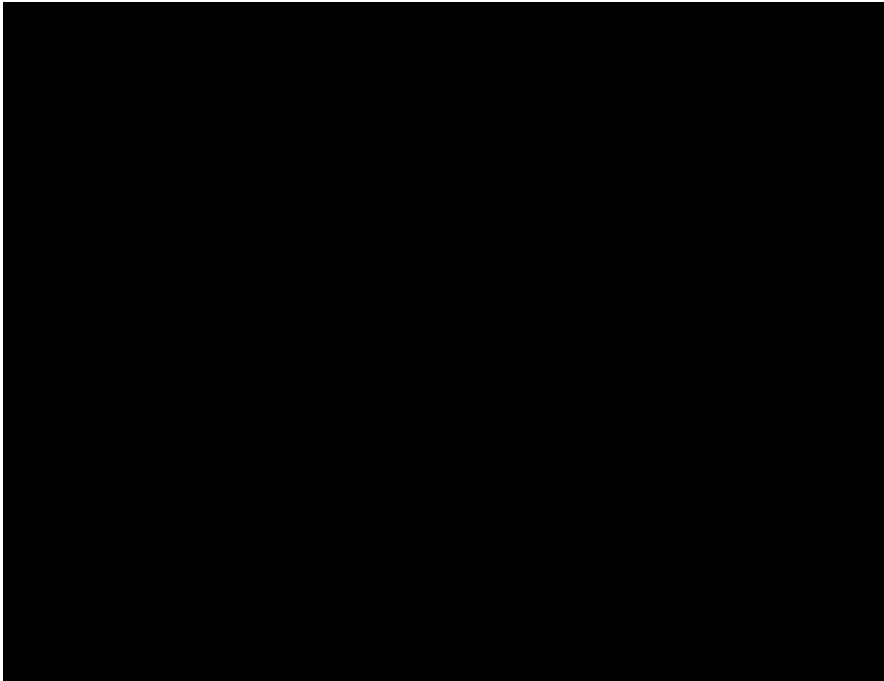


8" A cXjznt\Y'



# Fci h]b[

H\]g'VXUdhYf'YI d'U]bg'hY'a Yh.cXg'i gYX'Vm7 ]gVt HA G'hc'fci hY'WU`g'VYrk YYb'gnghYa gi g]b[ X]ZZYfYbhdffcVt'g'UbX'  
bYrk cf\_gz'UbX'ck '7]gVt



H\]g`X]U[ fUa `g\ck g`U`HY`YDfYgYbW` W`bZYfYbW` h.Uh]bWi XYg`Y][ \h`Y[ g`cj Yf`a i `h]d`Y`dfch`W`g`  
7 ]gW` HA G`i gYg`nfYbbW`

H\Y'cfXYf]b k \]Wk '7 ]gVc' HA G'df]cf]hnyg'h.Y'UVcj Y'

⇒

7 jgWc HA G'gi ddcfrg'fk c 'WJ'' Wcbrfc''

Z`ck ]b[ 'mYg'

K \Yb'7]gWc'HA G'WbbchZjhU''dUfhWdUbrg'cbhc'cbY'A 7I žhY'i gYf]g.]bZcfa YX'k ]h'Ub'Yffcf'Xi f]b[ 'Vcc\_]b[ ž'Ug'  
WgWUX]b[ 'XcYg'bch'

I ba UbU[ YX'6f]X[ Yg

7.]gWc HA G [ ]j YgYUWX i ba UbU[ YX Vf]X[ Y'dcfhU'bi a VYf'ghUfh]b[ 'Uh

s Wbbchj Yf]ZmhUh



s 7fYU]b[ 'hY'XYU'cZ

s" :J`



s CkYfWti bh]Ygz`LY`#U`nz]bWl XY`hY`YUX]b[ `nyfc `]b`hY`UfYU`WtXY`Yj



GmghYa 'A UbU[ Ya YbhCj Yfj ]Yk

H\]g'WXUdhYFdfYgYbrg'h.Y'



: cf ]bgfi W]cbg`



GngH'a g'6Y\]bX'

7 cbZ[ i fUjcbHYa d`UHYg

: cf`fYa ch`gmhYa gZ`WcbZ[ i fUjcb`HYa d`UHYg'a UmVY`Udd`]YX`cb`



H\Y'5XXfYggYg'h.UhGngHya gl gY'hc'7 cbhUWh7 JgVc'HA G

Mci 'gdYWZm





5XX]b[

§6 7 W



I g]b[

s" 7]W'

zi bUVY hc [ YhY gngYa i b]H! a `Z`YZ7 ]gWc HA G [ cYg h fci [ \ U` gngYa h dYg]h]g Uk UfY cZfmb [ hc'a UHX i bh ]h  
ZbXg hY i] [ \ hcbY" z]h

s " 7`jW'9bZcfWY'A UbU[ Ya YbhGYH]b[ g"

7]gVt' HA G'k ]`bck `gYhY'a UbU[ Ya YbhUXXfYgg'cb'h UhigmgYa 'hc'7]gVt' HA GfYI hYfbU'a UbU[ Ya YbhUXXfYgg"

K \Yb'hY'gmgYa ]g'd'i [ [ YX]b Uh'hY'fYa chY`cWUj







B chY 'h Uh'h YgY 'fUg\_g'cb'mUdd'mhc'gngh'a g'UXXYX'hc'7 ]gVt'HA G''A UbU[ ]b[



\$% ; c'GmghYa g'2BUj ][ Urcf'UbX'W]V\_cb'hY'gmgHya 'nci 'k ]g\ 'hc'fyd'UW"

&" CdYb'hY'7cbbYW]cb'HUV"

s " G

I d`cUX]b[

I g]b[ h.Y

6i hcb 8YgW]dh]cb

A cj Y#7 cdm A cj Y'cf'Vēdmih'Y'gY'YWH'X'gng'h'a' f]t'hc'ic'h'Yf'Zc'XYff]t'

8Y'YH' FYa cj Y'h'Y'gY'YWH'X'gng'h'a' f]t'Zca' ]hg'W'ffYbh'Zc'XYf']b'h'Y'gng'h'a' 'hfYY'g'fi'W'i'fY'"B'YI'h'z'XYW]XY'



GYW]cb 8YgW]dh]cb

H\]g` 5`]ghcZU`h\Y`gWYXi`YX`W`bZYfYbW`g`Zc`f`h`]g`gng`hYa`Zc`f`h`Y`  
K`YY`\_`f`g`  
6cc`\_]b[`g`



s : cf`Y[ UWmgngHya g'hUhWtca a i b]WJHY'k ]h'7 ]gWt'HA G i g]b[ 'GBA Džgi Vx 'Ug'7 ]gWt'3Y`YDFYgYbWw`A L D`  
ngngHya gž'hY HFUd\cgh-Đ'5XXfYgg ]g'U'gc'gYH' H\]g]gXcbY'Ui hca Uh]WU`mcb'U`



Cb'

: ]Y`X

8YgW]d]cb

GmgH'a`

8YZ]bY H.Y'gmgH'a f]j

WcbbYW]j ]fm

@[g'

@[ 8YgW]dhcb

: YYXVUW\_

@[

GYHb[ g

J ]Yk 'GYHb[ g'UbX '9X]hGYHb[ g

H\Y'a Ybi 'cdh]cbg'J ]Yk 'GYHb[ g'UbX '9X]hGYHb[ g'

91 H/bXYX'GYH]b[ g

GYWjcbgUbX ZY Xg

5

: ]Y`X`UbX`Vi Htcbg

8YgW]d]cb

I gYfbUa Y

7fYXYbh]U`g`Zc`f`U`i`gYf`k` ]h`G]h`5Xa` ]b]ghfUrc`f`dYfa` ]gg]cbg`]b`



: JX

8YgWdhcb

GBA D'

I b]YX 7 A

→ 7]gWc HA G. 'GmgHYa g 2'

s H]W\_Yh]b[ 'GYfj ]Wž'dU[ Y`%&)

s A UbU[ Y`H]W\_Yh9ffc'f@Yj Y`gž'dU[ Y`& ' '

A UbU[ YX`Gmg]Y a g

HY`YdfYgYbW`gmg]Y a g'a UbU[ YX`Vml b]Z]YX`7 A `UfY ``]g]YX`cb`h.]g`hUV"

7c`i a b`

: ]Y`X

8YgW]dh]cb

HfUW\_gmgH'a` GYhH.Y`dfYZffYX`UXXfYgg  
cb`bYHk cf\_`Vm

Gi a a Ufm

GYWjcb

8YgWjdjcb



7cī a bī

: ]Y`X

8YgW]dhjcb



HfUW\_gmgHra` GYhH.Y`dfYZffYX`UXXfYgg`Zcf`  
cb`bYtk cf\_`Vm



Gi a a Ufm

HA G'GWYXi `]b[ `



: ]Y`X 8YgW]dh]cb

Bi a Yf]W

⊖

5]UgYg

H\]g dU[ Y X]gd`Ung U``]ghcZU``U]UgYg WcbZ[ i fYX`]b`7 ]gWc`HA G`Zcf`h.]g`HY`YDfYgYbVW`7 cbXi Wcf`  
7`]W`BYk

5`ck`  
6cc\_]b[

≠

ᠬᠢᠵᠢᠨᠤᠭᠤᠳᠠᠭᠤᠯᠤᠰᠤᠨᠵᠢᠨᠵᠢᠨ

: ]Y'X 8YgWjdhcb  
A 57 '5XXfYgg A 57 'UXXfYgg'Zcf'h.Y'gnghYa "  
<cgfbUa Y H\Y \cgfbUa Y'Zcf'h.Y'gnghYa "  
GBA D; Yh  
7ca a i bJm

@c[ 8YgW]d]cb

<]g]c]f]m] s 5``XYh'WYX`W]Ub[ Yg'h Uh\Uj Y VYYb'a UXY'hc'h\Y'gng]h'a ]b'7 ]gWc' HA G"

H]W\_Yh Cdyb'UbX`WcgYX'h]W\_Yhg'Zcf'h.]g'gng]h'a ""

@c[ ``







7cbZ[[ i fU]cb

5b 9bZcfVW Y





: ]Y`X

7cbZYfYbW`  
@cW\_8i fU]cb

8YgW]dh]cb

Bi a VYf`cZgYW`bXg`

: ]Y'X

8YgW]dh]cb

GBA D; Yh

H\Y'GBA D [ YhWta a i b]hmbUa Y'Zcf'h\Y'gng'hYa "

7ca a i b]m

B Ua Y

Cb`mj ]g]VY'Zcf'gng'hYa g'hUhgi ddcfhiGBA D Wta a i b]hmbUa Yg"

HfUW\_ gng'hYa

cb`bYtk cf\_`Vm

GYh'h\Y'dfYZffYX UXXfYgg'Zcf'nci f'gng'hYa "H\Y Y







7cbbYWjcb

: JYX

8YgWjdhcb

7i ffYbh

7cbbYWjcb

GhUhg

@[ g

@[ 8YgW]dh]cb

GYWjcb 8YgWjdhcb  
HN]g' 5`]ghcZU`hY`  
K YY\_fj`  
6cc\_]b[ g

HA G'GWXYi ]b[  
GYH]b[ g

5`ck '6cc\_]b[ . 5`ck g'hY'gnghYa 'rc VY'UXXYX'rc WtbZYfYbWWg"  
5`ck 'K YV9l '6cc\_]b[ . 5`ck g Vf]X[ Yg'rc \cgHk YV9l 'WtbZYfYbWWg"  
5`ck 'bWta ]b[ 'D'5XXfYgg'8]U]b[ . 5`ck g

V\W\A  
P H M

5`\$  
5`\$

Ò 056 0 0 1 278 866. 892.49







: ]Y`X

8YgW]dhjcb

5``ck `

5``ck g`h.Y`gngH'a`fc`VY`UXXYX`fc`Vc`bZYfybW`g``

6cc\_]b[ g

GY`YW]b[ `



; YbYfU` HY`a cgh

H[V\_Yh: ]hYfg

Mti `WJb`UXX`cfY`a`cj`Y`

@c[ g

@[ 8YgW]dhcb  
<]ghcfm' s 5``XYHWNX'

BYrk cf\_  
GYHj]b[ g

h' h]g'gYW]cb'mci 'k ]'Z]bX '<' &' [ UHr\_YYdYf'UbX'G-Đ'gYfj Yf'fY[ ]ghfU]cb']bZcfa U]cbž'hY'B HD'  
fB Yrk cf\_'H]a Y'Dfch'Wc'Ł'gYfj Yf'gYH]b[ 'UbX'Đ'Wc'bZ][ i fU]cb']bZcfa U]cb"

HA G'  
GWXYXi 'j]b[ '  
GYHj]b[ g

5``ck '6cc\_]b[ . '5``ck g'hY'gngh'a 'hc 'VY'UXXYX'hc 'Wc'bZYfYbW'g"

5``ck 'K YV9I '6cc\_]b[ . '5``ck g'Vf]X[ Yg'hc '\cghK YV9I 'Wc'bZYfYbW'g"

5``ck 'hWc'a ]b[ 'Đ'5XXfYgg'









DfY! fY[ ]ghYf'GngHya g

DfY! fY[ ]ghUhc'b`Yrg'7 ]gVc`HA G`VcbZ[ i fY`gngHya g`k` \Yb`h`YmWc`bbYWhc`h`Y`b`Yrk`cf`\_`Zc`f`h`Y`Z`f`gh`h`ja`Y`":`cf`ghYd!`Vn`  
ghYd`]`b`g`f`i`W`h`c`b`g`z`g`Y`Y`DfY! fY[ ]ghYf]b[ `9bXdc]b`g`z`dU[ Y )`%`"

GYW]cb 8YgW]dh]cb

GY`Y`W`h` GdYW]Zm`h`Y`gngHya` bUa`Y`UbX`c`b`Y`c`Z`h`Y`Zc`ck` ]b[ `d`f`j`a`U`f`1`  
GngHya`  
=Yb]Z]Yf`

7

Xd G

: c`XYf`

Hj\_Yh

s CdYb'gmghYa ]b'GmghYa 'BUj ][ Urcf'fU\_Yg'nci '

GYH]b[

6i Itcb

8YgWjdjcb

GYbX'5Wti bh







: ]YX

Bi a VYf  
FUb[ Yg

8YgW]dhcb

9bhfbBY'cf'a cfY'bi a VYf'fUb[ Ygd/06



: ]Y`X

8YgW]dh]cb

Cd]a ]nY`  
FYgci fWg

GY`YWik \Y\Yf]c`U`ck`HY`YDfYgYbW`7 cbXi W]c]f]c`ZY`i d`UbmU`cW]YX`fYgci fWg]bchi gYX`Vmi  
dU]h]W]dU]bh]c]bW`h`Y`a`YY]b[ \Ug]h]U]f]YX" H\]g]g]Y]h]b[ ]g]YbUV`YX`

s 5Wj Y'8]fYVtcfmf58E

s 5Wj Y'8]fYVtcfmk ]h ?YfYfcg'fgYw FY'58E'

s @[ \k Y][ \h8]fYVtcfm5WVgg'DfctVt''



s M'g Udd'mih Y h'a d'Uhg'UbX'cj Yfk fjh'

Œ" GY`YWigmgHfa g]b h.Y`YZH \UbX'gYW]cb"

Œ" ð`h.Y FYgfcfY`9j YbhH]a Y`



A Ybi



: IX

7cbZ[ i fUjcbHYa d`UH'5Wj ]mGHUhg  
↳ 7]gWt

I d[ fUXY'A cXYg

GY'YWh

6i hcb 8YgW]dh]cb

a dcfh a dcfhU`c[ `cZh.Y'gcZrk UFY UbX'fY`YUgY' \_Yng'cZU`nci f'7]gWc`  
@c[

: ]Y`Xg]b`h.Y`GcZk UfY`@]gh

HAY` ]gh]g`cb`mj ]g]V`Y ]ZUh`YUghcbY`gcZk UfY`dUW\_U[ Y` \Ug`VYYb`i d`cUXYX`tc`7 ]gWt`HA GE`9UW`i d`cUXYX`Z]Y`k ]`VY`  
UXXYX`tc`h.Y`gcZk UfY` ]gh`

: ]Y`X            8YgW]dh]cb

: ]Y`BUa`Y        HAY`Z]Y`bUa`Y`cZh.Y`i d`cUXYX`gcZk UfY`dUW\_U[ Y`"

ſſ" GY`YWihhY'gnghYa 'nci 'k Ubhlc 'fYa cj Y"

ſ&" 7`jW`Di f[ Y`GmgghYa g`UhhhY`Vcltca `cZhhY`dU[ Y"  
5`]gh f[ `U[ Y"







Fci h]b[ 'UbX'A 7I g

7 ]gWc HA G \UbX`Yg fci h]b[ 'Ui tca Uh]WJ`m'K \Yb`Vcc\_]b[ `Wc bZYfYbWg]h]g bchbYVWggUfmirc`gdYVWZm



\$6 6cc\_]b[ 2BYk

§ " 6 11Y'DUfñWjdUbrg'fUVž'WJW\_5XX'DUfñWjdUbrg'fc'X]gd'UmñY'5XX'DUfñWjdUbrg'dcddi d'k ]bXck 'fVbgi fY'nci ' .

Œ" CdYb'6cc\_]b[ '2'@]gh7 cbZYfYbWg

Œ" I gY h\Y'cdh]cbg]tc'gYUfVX Zcf'WcbZYfYbWg"

s " Hc j ]Yk 'U'WcbZYfYbWz'W]W]\_cb'h\Y h]hYz'cf'cdYb h\Y Xfcd! Xck b'a Ybi 'h.UhUddYUfg'k \Yb'mG i





BchY`hUhkY`Zc`ck ]b[ `gVXYXi `]b[ `cdh]cbg`UfY`bch



: ]Y`X

8YgW]dh]cb

J ]XYc`  
5XXfYgg

H\]g`ZY`X ]g`5X`Y`B]U]`UV`Y`k` \Yb`9i` h`fbU`i`ms`<`cg`h`X` ]g`W`X`Y`W`Y`X`"`M`c`i` `a` i` g`h`d`f`c`j` ]X`Y`B`W`





HUV 8YgW]dh]cb

HYa d`UHYg DUfh]V]dUbhHYa d`UHYg`UFY ]bHYbXYX Zcf`i gY

GY'YWhA U]b

H.Y'A U]b'dUfh]Wfh]W'

s GY`YWHU``h`Y`dUfh]W]dUbhg`nci`k`UbhUXXYXz`h`Yb`W]W\_C? "  
Hc`fYa`cj`Y`U`dUfh]W]dUbhz`gY`YWH]h`UbX`W]W`h`Y`O`Vi`h`cb"



GYH]b[

8YgW]d]cb

9bUV`Y`G8B`

; UHk Um8-8`

A Udd]b[

GYHj[b[

8YgW]dHcb

5i hca UhjW  
@YWi FY'A cXY

K \Yb'h.jgZYUH fY ]gYbUV'YX'Zcf'U'WcbZYfYbWz'h.Y'A 7I ]XYbh]ZYg'h.Y'ci XYghgdYU\_Yf'Ug'h.Y'  
'YWi fYf''H\Y''YWi fYf'k ]''gYY U'bcfa U'Wcbh]bi ci g'dfYgYbW'j ]Yk'cf'



9bfm#9l ]hHcbYg [ \Øb'gY`YWñXzU'rcbY'g[[ bU`

7 UgWUX]b[

J c]W'Gk JhW'  
Hja Yci h

8Yz]bYg'h.Y'bi a VYf

HY`Yd\cbY`Bc]gY`  
Gi ddfYgg]cb`  
fHY`Yd\cbY`  
:]hYfL

7 ]gWc`HY`YDfYgYbW`7 cbXi Wcf`GYh]b[ g  
#`7 ]gWc`HA G.`6cc\_]b[ `2`BYk`





: ]HYf

: ]HYf'cb'fYVc'fXYX'cf'XYZYWij Y VcbZYfYbW'g"

5 8YZYWij Y VcbZYfYbW' ]b 7 ]gVc' HA G \Ug'VYYb Vcc\_YX VmiUb 'YI HYfbU' W]Ybht\Uh  
YbVci bhYfYX U

A Ybi 'cdh]cb

J ]Yk

9X]h

A YYh]b[ '8YH]g

8YgW]d]cb

J ]Yk 'h.Y WcbZYfYbW' ]b'h.Y J ]Yk '7 cbZYfYbWž'dU[ Y %\* ( 'dU[ Y"

Cd]bb'h '9X]7 cbZYfYbW' dU[ Y 'zcf'h.Y'gY'YW'WX'WcbZYfYbW'"

CdY]g'h'A 'h]b[ 'cfa Uh]c'RDUP'YZ'f L R Q



4cb

7cbZYfYbW 8YgWjdjcb



§6 7 W



Hya d`UHg WUb`fYdfYgYbhYbXdc]bhg`Wc`bfc`YX`Vm7`jgWc`HA`G`cf`YI`hYfbU`dUfhjWdUbhg":`cf`YI`Ua`d`Yg`cZ\ck`dUfhjWdUbh





s&" GdYwZm h Y`8]U`GYh]b[ g`Ug`XYgW]VYX`]b h Y`hUV`Y`VY`ck "

: ]Y`X      8YgW]dhcb

B Ua Y      GdYwZm

: ]Y`X      8YgW]dh]cb

9l hY/bg]cb`    GdYW]Zm  
Bi a VYf



91 Ua d'Y'



A cb]hcf]b[

H\]g'VXUdhYfXYgWf]VYg'h.Y'7cbZYfYbW'7cbHc`7YbHfZk \]W ]gi gYX'rc

H\]g'a YUbg'hUh]ZU'g]H' ]g\Uj ]b[ 'U'dfcV`Ya `cf\Ug`ei Ygh]cbgž`Ub`cdYfUhc`f`WUb`ghUfhU`bYk `WcbZYfYbW`UbX`UXX`  
H`Ya gY`j Yg`UbX`h`Y`dfcV`Ya `g]H`f]L`hc`h`Y`gdYW]U`WcbZYfYbW`"CbVW`h`g`WcbZYfYbW` ]g`cj Yfz`h`Y`cdYfUhc`f`WUb`gYbX`  
h`Y`g]H`VUW`\_`hc`h`Y]1

- s DufhWdUbhg'a cj YX'hc 'Ub'cdYfUrcf'WcbZYfYbW'Ufy'gh''g\ck b'Ug'dUfhWdUbhg ]b'h'Y gWYXi 'YX'a YYhb[ žVi h' k ]h'gdYWU' ]Wcbg'hc'g][ bU' h'Uhh'Ym\Uj Y'VYYb'a cj YX"
- s CdYfUrcf'WcbZYfYbW'g'k ]''Ui hca UhWU''mWYUf'h'Ya gY'j Yg'ci h]Zbc''cb[ Yfi gYX Vmh'Y'cdYfUrcf'g'gng'hYa "

7 fYUhb[ 'Ub'



s 9bHfU'bi a VYf]b h.Y: ]bX Z]XX

Wcb



BUa Y

J JYk 'K YV

8YgWjdhcb

G\ck g'mci 'hY'k YV jbhYfZUW'cZ

Wcb

B Ua Y

8YgW]dh]cb

7\Ub[ Y`

7\Ub[ Y h.Y`dUfh]V]dUbhfj`X]gd`UmbUa Y"

8]gd`UmBUa Y

J ]Yk ]b[ 'GmgHya 'H]W\_Yhg

È\Y'GmgHya 'H]W\_Yhg 'UFYU



Cdhcbg

: ]Y`X

8YgW]dhcb

I gYf`5ffUb[ Y

5`ck g'hY'i gYf'hc



s Mg]g`hY`XYZJi`hgYHj[b[ z`k` \]W`'a` YUbg`hUhYbXdc]b`g`k` ]``cb`m`





Œ" GYhi d'UWŸgg'Wtbfç`žgYY; fUbjb[ '5WŸgg'rc

§" 7\YW

Y]hY

ξ" : cf'l dXUHY HmdY Zcf'hYgY'gci fWgžgY`YWY]hYf`a dcfhfc`7JgWc

7 cbbYWhcb Vi Hcbg

s 7 cbbYWhcdYbg



: JYX



8YgWjdjcb

GYHb[ g

: ]Y`X

8YgW]dhcb

⊖

H\Y ⊖ UXXfYgg

5XXfYgg#8BG



s <" ) \$'8]fYVWcfm



WŁbHJ]b WŁ`i a b`YUXYfg`XYgWf]V]b[ `H`Y WŁbH`bHgcZYUWŁ WŁ`i a b"

s H`Y WŁ`i a b`YUXYfg`a i ghVY`bUa YX`Ug`Zc`ck g.  
øàÊÁSá↑æÊÁØUÆSS | ↑âæãÊÁØUÆSS | ↑âæãGÊÁØUÆSNá^ä }↔ä`ãÊÁPæb\ã↔`ÊÁÚæ→æ\*â~^æÊÁUØŞN→→ábÊÁ  
ØŞS | ↑âæãÊÁØŞNääãæbbÊÁØŞNá^ä }↔ä`ã"

BchY`H`Uh`ÐBi a VYf`a UmWŁbHJ]b`Ub`<" & `!`-Ø`cf`Ub`9"%\* ( `U`]Ug"

s H`Y WŁ`i a b`YUXYfg`UbX`XUH`YbHf]Yg`a i ghU`VY`gYdUfUH`X`VmU`WŁ`a a U"

s 5``WŁ`i a bg`Xc`bchbYXX`fc`VY`]bWİ`XYX`cf`WŁbHJ]b`XUH`ž`Vi`h`H`Y`B`Ua`Y`WŁ`i a b`WŁbbchVY`Ya`dHf`

s K`Y`g`f`c`b[ `m`f`Y`WŁ`a a`Y`b`X`i`g`]b[ `H`Y`X`WŁ`i a`b`ž`nc`i`WŁ`b`i`g`Y`U`b`n`i`g`]b[ `c`f`b`i`a`V`Y`f`c`Z`Y`g`g`H`U`b`)`%&`WŁ`U`f`U`W`Y`f`g`  
H`]g`]g`i`g`Y`X`U`g`]X`Y`b`h`]Z`W`U`h`c`b`]b`U`H`Y`f`]a`d`c`f`g`"

5b`YI`Ua`d`Y`c`Z`U`WŁ`a a`U!`g`Y`d`U`f`U`H`X`Z`Y`]g`g`l`c`k`b`V`Y`c`k`ž`k`Y`f`Y`H`Y`Z`f`g`h`f`c`k`WŁ`b`H`J]b`g`

GYHb[ g

: ]Y`X

8YgWjdhcb

F cch8]fYWtcfm

J ]k ]b[ VcbUWg

5ZrfgY'Wb[ 'Ud\cbY Vcc\_'gci f

F Ydcfh]b[

H\]g'VXUdhYf'YI d'U]bg\'ck '7]gVt'

Œ" 9bHYfHAY'ghUfhUbX'YbX'ha Y'Zcf'nci f'gyUfVX"8YdYbX]b[ 'cb'HAY'hdY'cZfYdcffz'nci 'a Um\Uj Y'HAY'cdHcb'cZ  
UXX]b[ 'VcH'UXUH'UbX'U'gdYVZ]W]ja Y'cZXUm  
d

Œ" GdYVZmUXX]HcbU'

s " ɸ'gca Y'fYdcfhei YfmZcfa gž'U: ]h'f'GmgH'a g'Vi h'cb ]g'Uj U]UV'Y'Zc'f'gY'YW]b[ 'k \]W'gdYW]Z]WgngH'a g'hc'  
]bWi XY.

s





Hfci V`Yg\cch]b[

: cf'Hfci V`Yg\cch]b[ 'Ugg]ghUbW'gYY'6f[X[ Y 1 h']nUh]cb'

I gYfg

HNY'I gYf'78F'dU[ Y`]g'cb`mUj U]'UV`Y`]Z7 ]gWt

I gY

# GmghYa

b'7]gVc'HA G. FYdcfh]b[ '2'GmghYa

H\Y'dU[ Yg]b'h\Y'FYdcfh]b[ '2'GmghYa 'a Ybi 'gYW]cb'Vc'bhU]b'fYdcfh]b[ 'cdh]cbg'Zcf'XUHU'Z'ca 'a UbU[ YX'gmghYa g"



: ]Y^X

8YgW]dh]cb

: JYX

8YgWjdjcb

5`hYfbUHY`GmgHya`  
BUa Y Fi`Yg Zcf`  
9bXdc]bty`fcfXYf`cZ`  
bUa Y`hc`i`gYŁ

GdYWZm



@jWbgYg'UbX'C dh]cb ? Ymg

BchY: '5XX]b[ 'a cfY hUb') \$\$\$'gmghYa g''jWbgYg'k ]''[ YbYfUHY 'U'k Ufb]b[ 'hUhi h]'n]b[ 'a cfY hUb') \$\$\$'gmghYa g']g'bchi  
gi ddcfHYX" H\]g'k Ufb]b[ 'k ]''VY 'X]gd'UnYX'Yj Yfm]ja Y h'Y; YbYfU'GYH]b[ g'dU[ Y ]g'UWVW'ggYX" 7 cbhUW'h'a g!  
a Uf\_Yh]b[ 4 V]gVc"Vca ]Znci \Uj Y'U'XYd'cna YbhihUhYI WYXg'cf]g'

GYWcbg

GYWjcbgUbX

GYWjcbg'UbX`Zl`Xg

GYWjcbg'UbX`ZjY`Xg

8YgWjdhjcb

9bZcfW`A UbU[ Ya Ybh  
GYHj]b[ g'cb`GmgH`a g

K \Yb`YbUV`YX.

s H\Y`7]gV`HA G`gYfj Yf`UXXfYgg`V`bZ[ i fYX`]b`5Xj UbW`X`BYk cf\_`GYHj]b[ g`Zcf`  
GmgH`a g`cb`bH`fbU`@5B`k`j`VY`YbZcfW`X`cb`U`gmgH`a g`Ug`U`ZYXVUW`\_`UXXfYgg`  
H\]g`UXXfYgg`

GYWjcbg'UbX`Zl`Xg

HA G'GYfj Yf`Dj ( `

5XXfYgg

8YgWjdhjcb

K \Yb YbZcFVb[ `a UbU[ Ya Ybh'

9a U] GYh] b[ g

6UgY'1 F@  
Zcf'4Vbg

H\Y`cWU]cb'i gYX'Zcf]a U[ Yg]b<HA @Y! a U]'a YggU[ Yg]g'X]gd'UmYX`YfY" H\Y'XYZJi `h`cWU]cb k ]`  
VY'cj Yfk f]H\Yb'cb'Ubmgi VgYei Ybhi d[ fUXYg'cZ7]gWc'



HU[

8YgW[dh]cb

>CFF<KECNGPFCTa  
CVVCEJOGPV@

Wl XY ""]WU`UHUVK a Ybhk ]h`Ya U]`a YggU[ Y" h\ ]g`hU[ `WUb`VY`d`UWX`Ubnt \YfY`]b`h.Y`hYa`d`UhY`  
UbX

" >XCN<OGGVKPIaYGDEQPHaGTTQT@"11"Vjg"YgdGz"gttqt"vgzv0  
"  
"UGEVKQP<OGGVKPIaYGDEQPHaYCTPKPI@"11"Cp{"yctpkpiu"tgictfkpi"YgdGz"

\*\*\*\*\*>XCN<YGDaENKGPV3aWTN@  
" " " " >XCN<YGDaENKGPV3aNCDGN@  
\*\*\*\*\*>UGEVKQP<XKFGQaCFFTGUU@"11"Wugf"



7cbZfYbW'8]gd`Um

: ]Y`X

8YgW]dh]cb

G\ck `BYfk cf\_`DfcXi Wg`]b`5X` GdYW]Zmk \Yh.Yf`]bZUgfi Wfi fY`  
<cW6cc\_]b[



7cbZfYbW'7cbbYWjcb

: ]Y`X

8YgW]d]cb

5`cW]cb'5Hya d]g'  
Zcf'GWYXi`YX`7U`g

H\Y`bi a VYf'cZ]a Yg'7]gW' HA G'k ]`UHya dhc'U`cW]h`h.Y`WU`cb`h.Y`Vf]X[ Y"  
H\Y`XYZ]i`hj`Ui`Y`]g'("

7cbbYW]cb'5Hya d]g'  
Zcf'





: JYX

8YgWf]dhjcb

G\ck 'A YggU[ Y L'

A Jbi hYg'6YZcfY'

9bX

5Xj UbWYX'



: JYX

8YgWdhcb

5XX

: ]Y'X 8YgW]dhcb

I gY'K YV



I gYf





5Wj Y 8jFYWcfm7 cbbYWjcb

; UH\_YdYf'  
7cbZ[[ i fU]cb

⇒ NcbY BchGYh

⇒ NcbY Jg'bchgYhZcf'h.Jg'





HfUW\_]b[ 'A YhcX' H\Y'  
⊕Wc'a dUh[V'Y k ]h'⊕'  
5gg][ ba Ybh

J ]XYc i b]h5Xa ]b]ghfUhc f

GYH]b[ 'DYfa ]gg]cbg'Zcf; fci dg

s% A c j Y





Dfcj ]g]cb]b[

8]fYWcfm

UD B[H"V \57Wgg'h.Y`dU[ Y"

FYdcfh]b[



BchY'





: ]Y`X        8YgW]d]cb

H]a Y`NcbY GYh]Y i gYffg]h]a Y`ncbY ]c`dfYgYbh]Y Wc`ffYWh]a Y`UbX`XU]Y`]bZcfa U]cb ]c`i gYfg"

I gYfg]k ]`gYY`]Y]f`ck b`h]a Y`ncbY`k`Yb.

s`6cc\_]b[`U`



K \Yb b

GYWjcb#ZjY`X

hYfbU`7U`g

Bi a VYf`cZX][ ]hg`

8YgWjdh]cb

s

GYWjcbg'UbX`Z]Y`Xg

8YgW]dh]cb

; UHk UmFYgci fW`  
Dcc`

s

~~G~~8B`NcbY

GdYW]Zmk \]W`

s FYei ]fY hUhU'V]`]b[ `WXY'a i ghVY`YbHfYX'cb'U'gnghYa`VYZcfY`U'WU`'WU'VY'a UXY"  
s FYei Ygh

6] ]b[ '7cXYg'5Wij ]mGHUhi g  
b



s 7ZUghfi Wfi fY.

s 7cbZYfYbWVf]X[ Yg'UfY'a cj YX'VY\]bX'HY'YDfYgYbW'7cbXi Wtcf"

s A 7I gUfY'gk UddYX'Zcf'HY'YDfYgYbW'GYfj Yf"

s A ][fU]b[ Zca 'U'7]gWc'J 7G'hc 'U' b]ZYX'7A! VUgYX'XYd'cna Ybh'

<ck





uraeqphkiwtg" )ujqy"cfxcpegf"qrvkqpu)."3=

IQ

†GEQPHKIWTG=

IQ

uraeqphkiwtg" )Qng"Cwvqocvkqp"Rtqegfwtgu)."3=

IQ

†GEQPHKIWTG=

IQ

H\Y`HA`G`GYfj`Yf`8`]g\_`GdUW`gYW]cb`X]gd`Ung`h\Y`ZYY`X]g\_`gdUW`





GYfj ]W`BUa Y

BUa Y`cZHY`gYfj ]W`fHA GK YVz`HA GK YVDi V`]Wcf`cH`Yf`gYfj ]W`gE"

Cf][ ]b`<cgH  
5XXfYgg

⊖ UXXfYgg`cZHY`cgHa UWX]bY Zca`k`\\]W`h`Y`WXUb[ Y`k`Ug'a UXY""`ZU`gYfj ]W`i`gYf'a UXY`h`Y`  
WXUb[ Yz`h`]g`ZY`X`k` ]`VY`

7 JgVt 'HA G'Hcc`g

7 JgVt 'HA G'Hcc`g JgVt 'HA G'Hcc`g JgVt 'HA G'Hcc`g JgVt 'HA G'Hcc`g JgVt 'HA G'Hcc`g JgVt 'HA G'Hcc`g JgVt 'HA G'Hcc`g JgVt 'HA G'Hcc`g JgVt 'HA G'Hcc`g JgVt 'HA G'Hcc`g

HCC  
7A0161F R

§" 𐄂GE@GYfj YfZ'WYUHY 'U'byk 'i gYf'Zcf'h.Y'ha gb[ 'XUHUVUgY'"  
sJ" 5ggcWYUHY 'h.Y'i gYf'k Jh'h.Y'c[ ]b'mæi 'WYUHYX'j'b'ghYd'('

7]gVt HA GD9'8UHVVUgY

-Zk.Yfy'UFY'bc'WfhZVUHg'Ygn\Yfz'WX'YW\_H.UhMFWWzi bhnci'UFY'Gib[ 'h'Y'f'7]gWc'HA'G'f'Ug'fYUX'UWV'gg

---



GYWjcbg'UbX'  
ZY'Xg

8YgWjdhcb

8jgWYY

GYWjcbg'UbX'  
ZjY'Xg

8YgW]d]cb

6UbbYfg'cb'  
K YV'DU[ Ygž  
Ya U]g'UbX'  
8cW'a Ybfg

5XXg'VUbbYfg'rc.

s H\Y'7]gWc'HA G'Udd']WU]cb k YV'g]HY''

s A ]WfcgcZi9l cZ

H\]g'hc`g\ci `X'cb`mVY'i gYX ]Z'UZf'i d[ fUX]b[ 'hc`

# Hfci V`Yg\cch]b[

H\]g`V\UdhYf`UXXfYggYg\`ck `tc`fci V`Yg\cchh\Y j Uf]ci gV\ca dcbYbhg`cZ7 ]gV\`HA G"  
-bgfi W]cbg`cb`fci V`Yg\cch]b[ `YI hYbg]cb`dfcXi Wg WUb VY`

⊕gtU`

@c[ `bUa Y

⊕gtU`S`c[

8YgW]dh]cb

?YYdg`U`fYWŁfX`cZU``]bgtU`U]cbgž`Ubmi b]bgtU`U]cbgž`UbX`i d[ fUXYg`g]bW`h`Y`gcZk UfY`  
k Ug Z]fgh



@c[ 'bUa Y

8YgW]dh]cb

7 \ Ub[ ]b[ 'hY@c[ ' .



h.Y WcbZYfYbWw'cV'YWh]hdfcj ]XYX"7 ]gWc' HA G'h Yb'X]gWJfXg'h Y Vcc\_]b[ 'UbX'c[ g'Ub'9F FCFžUbX i b'Ygg'h Y W]YbhFY!  
hf]YX'h Y'gUj Y'cdYfU]cb'i g]b[ 'Uj U]X WcbZYfYbWw'cV'YWh'h Y WcbZYfYbWw ]g'cgH'

=@c[ g

7 ]gWc' HA G'i gYg'K ]bXck g'GYfYf Y g Y

5Xj UbWYX'gfYdg

K YV'gYfj Yf

s J Yf]ZmHUhH.Y'j ]fH U`X]fYVWc.f]Yg'





6Ug]WGHrdg

H\]g`Yffcfa YggU[ Y ]bX]WUHyg`h.Uh7 ]gWŁ`HA G`k Ug`i bUV`Y`rc`

7 cbZYfYbWV'GWbUf]cg

H\lg'



Hc Zjl 'hY dfcV'Ya /

8% CdYb 'hY'



$K \text{ Ufb]b[.}$

FYVĉbbYWYX`6fjX[ Y`7 U`

↳gca Y`gWbUf]cgž.]Z

s " 7 ]gWt HA G'dUfgYg

g]dSgtUhr''

- H\ ]g`Wli gY ]bX]WUHyg`h UhH.Y`WU``]g`VY]b[ `dfY! Ya dhYX`UbX`h.Y`W]rW ]h]g`fYgYfj YX Zcf`fYi gY`VmiH.Y`dfY!  
Ya dh]b[ `Yi WkUb[ Y"
- /\* H\ ]g`Wli gY ]bX]WUHyg`h UhH.Y`WU``]g`VY]b[ `WYUfYX`VYWli gY`cbY`cZH.Y`i gYfg]bj`c`j YX ]b`h.Y`WU``\Ug`  
fYei YghYX`

(% H\]g^Wli gY ]bX]WlH]g^h Uh^h.Y bYtk cf\_]g^bchZ bW]cb]b[ `Wc^ffYWhmUbX^h Uh^h.Y WcbX]hcb ]g^bch`\_]Y^mhc ``UghU`  
j Yfm^cb[ `dYf]cX`]b^hja Y``5`

, %





7]gWc '@Y[ U' ðZcfa Uh]cb

H<9GD97 ÷ 75H€BG'5B8'ß: CFA 5H€B'F9; 5F8ß; 'H<9'DFC8I 7HG'ß'