



# MDIA3006

DfcXi W]cb`Gh X]c

Gi a a Yf`##`&\$%-



7 ci fgY`Cj Yfj ]Yk

`GHUZZ`7 cbhUW`i8YHU]`g`

`7 cbj Ybcfg`

B Ua Y	9a U]`	5j U]UV]]m	@WU]cb	D\cbY
5`mggU`F chk Y`	U"fcchk Y`4 i bgk "YXi "Ui	6mYa U]` Uddc]bha Ybž Hi YgXUm%&"	K YVghYf 6i ]X]b[ " %%	\$& - ' , ) * , \$+

GWXcc`7 cbhUW`i`bZcfa Uh]cb

Fcca " %&ž`Yj Y`" `F cVYfhK YVghYf`6i ]X]b[

D\cbY. f\$&Ł- ' , ) ( , ) \*

9a U]: [gUa 4 i bgk "YXi "Ui](#)

K YVg]hY: [\hfdg.#gUa "Ufmg"i bgk "YXi "Ui](#)

H\Y`GWXcc`cZHY`5fmg`UbX`A YX]U`k ci `X`\_]Y`hc`F YgdYWZ`m5W\_bck`YX[ Y`hY`HfUX]h]cbU`7 i g]cX]Ubgž  
hY`6YXY[ U`fP`Ybg]b[ hcb`WJa di gŁž; UX][ U`f7 ]mUbX`5fhi`8Yg][ b`7 Ua di gYgŁ`UbX`hY`B [ i bbUk U`  
dYcd`Y`fBi g]fU]Ub`8YZ`bVW` : cfW`5WUXYa m]b`7 UbVYffUŁ`cZHY`UbXg`k \YfY`YUW`WJa di g]cZI`BGK`]g  
`cWU]hY`X"

7 ci fgY'8YHJ]`g

7 fYX]hDc]bhr \*`

Gi a a UfmicZ\hY'7 ci fgY

Gi VYWh5fYU. A YX]U

⊕DfcXi W]cb`Gh X]c`mci `k ]`k cf\_`k ]h`Ub`]bXi ghfmW]Ybhlc`XYj Y`cd`U`dfc`YWhlc`fYU`]gU]cbz`]XYbh]Z]b[  
mci f`UfYU`cZgdYW]U`]gU]cb`UbX`Vcbgc`]XU]b[ `h`Y`g\_]`g`hc`hU`Y`mci`hc`k`UfXg`Ya`d`cma`Ybh]b`h`Y`a`YX]U  
]bXi gh]Yg`H\Y`a`U]b`Ya`d`U]g]b`h`]g`Vci`fgY`]g`dfUW]W]`dfcXi W]cbz`Ui [ `a`YbhX`VmW]h]W]`UbX`WYU]h] Y  
h`b\_]b[ `k`]h`b`U`fUb[ Y`cZgdYW]U`]gU]cbg]b`Wi`X]b[ `5b]a`U]cbz`]X]Yc`DfcXi W]cbz`⊕h`fUW]cb`8Yg][ `b`cf  
Gci`bX`<`cb]b[ `mci`f`g\_]`g]b`U`fYU`!`k`cf`X`]bXi`ghfmVcb]h]i`h`mci`k`]`dfcXi`W`cf][`]bU`WYU]h] Y`k`cf`fYUXm  
Zf`]bWi`g]cb]b`mci`f`dfcZ]gg]cbU`dfUW]W]`g`lck`fY`UbX`dcf]z`]c"

7 ci fgY`@YUfb]b[ `Ci hVca Yg

%`8Ya`cbghfU]h`g\_]`]b`dfcZ]gg]cbU`dfUW]W]`z`cf[ `Ub]gU]cbz`]h]a`Y`a`UbU[ `Ya`Ybh`Vca`a`i`b]W]h]cb`UbX`U  
dYfgcbU`dfcXi W]cb`ghm]Y  
&`F`Ygdc]b`h`c`W]h]W]`Z]YXVUW\_]b`U`dfcZ]gg]cbU`UbX`WYU]h] Y`k`Um  
` `8Ya`cbghfU]h`Ub`i`bXYfg]UbX]b[ `cZ\hY`fY`U]h]cbg]d`cZ]Z`fa`z`Vcb]h]b]h]UbX`Ui`X]YbW]`]b`U`a`YX]U  
dfcXi W]cb`  
(`5fh]W`U]h`h`Y]f`d`UW]`]b`h`Y`k`]X]Y`f`A`YX]U`]bXi`ghfm

HYUWX]b[ `GhfU]h[ ]Yg`

DfcXi W]cb`Gh X]c`]g`XYg][ `bYX`h`c`fYUXm`mci`Zcf`Z`h`fY`Ya`d`cma`Ybh]b`h`Y`a`YX]U`dfcXi W]cb`]bXi`ghfm`5  
dfcZ]gg]cbU`dfcXi W]cb`gh X]c`Ybj`]fcb]a`Ybhk`]`VY`WYU]h]X`k`]h`b`Vci`fgY`fcca`g"

Mci`k`]`VY`gi`ddcf]h]X`h`c`k`cf`\_`cb`U`gdYW]Z]WdfcZ]gg]cbU`dfc`YWh]dfc]`]X]YX`VmU`W]Ybh`7`UggYg`k`]`VY  
ghf] W]h`fYX`h`c`gi`ddcf]h]mci`f`dfcXi W]cb`a`Yh`c`Xg`UggcW]U]h]X`k`]h`mci`f`gY`YWh]X`W]YbhVf]Y]Z`

Mci`k`]`U]j`Y`cddcf]h]b]h]Yg`h`c.  
!a`YYhk`]h`h`Y`W]Yb]h]`UbX`X]g]W`gg`h`Y`Vf]Y]Z]g`  
!Yb[ `U[ `Y`]b`UW]h]`]h]Yg`h`c`dfca`ch`WYU]h] Y`UbX`h`W]b]W]U`g\_]`XYj`Y`cda`Ybh`  
!VYVca`Y`]a`a`YfgYX`]b`dfUW]W]`dfcXi W]cb`fYgYUfVX`  
!k`cf`\_`Vc`U]VcfU]h] Y`m]f]c]f]b`h`Y`Ua`g`k`Y`fY`bYW]ggUf]h`  
!fYW]j] Y`W]h]W]`Z]YXVUW\_]`UbX`gi`ddcf]h]Z]ca`h`Y`Y`W]h`fYf`z`dY]Yfg`UbX`h`Y`W]Ybh`  
!d]h]W]`Ub`]X]YU`UbX`dfYdUfY`U`dfc`YWh]dfc]dcgU`]b`fYgdc]bgY`h`h`Y`7`]YbhVf]Y]Z`

Mci`k`]`VY`YbVci`fU[ `YX`h`c`hU`Y`fYgdc]bg]V`]h]mZcf`mci`f`dfcZ]gg]cbU`dfUW]W]`Vm  
!dfYdUf]b[ `U`dfcZ]gg]cbU`dfc]dcgU`]bWi`X]b[ `U`dfcXi W]cb`gW]YXi`Y`UbX`Vi`X[ `Yh`  
!cf[ `Ub]g]b[ `a`Y]h]b[ `g`k`]h`mci`f`W]Ybh`  
!Vcc\_]b[ `dfcXi W]cb`gdUW]g`UbX`Ye]da`Ybh`  
!XYj`Y`cd]b[ `UbX`[ `U]h]Y]f]b[ `U`h`Y`fYgci`fW]g`mci`f`Ye]da`Ybh`[ `Yh]h`Y`c`V`XcbY`  
!dU]h]W]dU]h]b[ `]b`fY[ `i`Uf]b]Z]ca`U`Z]YXVUW\_]gYg]cb"


D`YUgY`fYZf`h`h`Y`a`X]U' \$\$\*`DfcXi`W]cb`Gh`X]c`A`ccX`Y`K`YVg]h`Zc`U``i`d`h`XU`h`]b`Z`fa`U]cb`UbX`UggYgga`YbhXYfU]g"

## 5 HbXUbW F Yei ]fYa Ybhg

H\]g: ]g: Ub ]bhbgj] Y dfUW]W dfcXi W]cb`Vei fgY`UbX`]h]g`YggYbh]U`h`Ughh XYbhg`UhbX`U`h]a YHUV`YX WUgg`gYgg]cb`UbX`UggcW]UH`X`dfcXi W]cb`a`YY]b[ `g"5`ghi XYbh]g`YI`dYW`X`h`UhbX`U`ZJW`!h`ZJW` V`bhUW`h`ci`fg"

zU`gh`XYbhYI`dYf]YbW`g`]`bYggza` ]gUXj`Ybh`fY`cf`ch`Yf`cW`ffYbW`h`Uha`U`Yg`UVgYbW`Zca`U` WUgg#JW]j` ]mi`bUj`c]XUV`Yz`cf`YI`dYW`g`h`VY`UVgYbhZca`U`Z`f`h`V`a` ]b[ `WUgg#JW]j` ]mz`h`Ymg`h`ci`X`gYY`\_`dYfa` ]gg]cb`Zca`h`Y`7`ci`fgY`5i`h`cf]mz`UbX`k` \YfY`Udd`]WUV`Yz`h`Y]f`fYei`Yghg`h`ci`X`VY`UVW`a`dUb]YX`VmUb`cf][` ]bU`cf`W`h]Z]YX`V`dmcZU`a`YX]WU`V`h]Z]W`h`cf`ch`Yf`Zca`c`ZUddfcdf]UH`Yj` ]XYbW`"

H\Y`a` ]b]a`i`a`UhbXUbW`fYei` ]fYa`YbhZ`f`h`]g`V`ei`fgY` ]g`, \$i` `gi`ddcfYX`VmXcW`a`YbhU]cb`YI`d`U]b]b[`UVgW`bW`g"

## 7 ci fgY`GW`YXi` `Y

[J \]k`WUgg`h\]a`YHUV`Y](#)

H]a`YHUV`Y`

8UH	HmdY	7cbhYbh
K YY_`%`&`>Ubi`Ufm!`*`>Ubi`Ufm		
K YY_`&`.`+`>Ubi`Ufm!`%`>Ubi`Ufm		
K YY_`"`.`%{`>Ubi`Ufm!`&\$`>Ubi`Ufm		
K YY_`(`.`&%`>Ubi`Ufm!`&(`.`YVfi`Ufm		

# F Ygci fWg

DfYgWf]VYX`F Ygci fWg`

5`[ccX`ei U`]m\UfXXf]j Y`Zcf`dfc`YWhk cf\_`UbX`cb[ c]b[ `VUW`!i dg`cZdfc`YVWg`

F YWca a YbXYX`F Ygci fWg

7 fYUhb[ `Mci f`8][ ]H`DcftZ`c.`H\Y`9ggYbh]U` ; i ]XY`hc`G\ck WUg]b[ `Mci f`8Yg][ b`K cf\_`Cb`]bY`

F YZf`hc`h\Y`a X]U` \$\$\*`DfcXi W]cb`Gh X]c`A ccX`Y`k YVg]H`Zcf`i d`hc`XUHY`fYgci fWg`

## 7ci fgY`9j U`i Uh]cb`UbX`8Yj Y`cda Ybh

5`Wca V]bUh]cb`cZh\Y`Zc`ck ]b[ `UddfUWYg`k ]`VY`i gYX`hc`[ UH\Yf`ZYXVUW`UVci h\h\Y`Wci fgY`"I`BGK`  
A m9] dYf]YbW`Wci fgY`UbX`h\UW]b[ `Yj U`i Uh]cb`UbX`]a dfcj Ya YbhdfcWgg`"5bYWcH`9j U`i Uh]cbz`k \YfY`  
gh XYbhg`Zca`h]a Y`hc`h]a Y`Xi f]b[ `h\Y`gYa Yghf`UfY`Yb[ U[ YX`]b`]bZcfa U`X]gW`gg]cbg`UVci h\h\Y`Wci fgY`  
CVgYfj Uh]cbU`9j U`i Uh]cb`k \YfY`h\Y`YWhi fYf`fWcbj YbYf`cf`h`hc`f`fY[ i `UfmcVgYfj Yg`h\Y`YZYWhj YbYgg`cZ`  
WUggYg`UbX`YWhi fY`UbX`a cX]ZYg`h\Y`Wci fgY`WcbhY`bhUbX`XY`]j Yfm]b`fYgdcbgY`hc`h\cgY`cVgYfj Uh]cbg`  
DUghYj U`i Uh]cb`Z]bX]b[ g`\Uj Y`VYYb`UWYX`i dcb`]b`h\Y`Zc`ck ]b[ `k`Um]g`"hik Ug`]XYbh]ZYX`h`fci [ `ZYXVUW`  
h`Uhgh XYbhg`VYbYZ]hX`k \Yb`h\Y`Wci fgY`UggYgga Ybh]Ug\_g`k YfY`U][ bYX`k ]h`bYXg`cZh\Y`W]Ybhdfc`YWh`  
UbX`W]Ybhdfc`YWhiXYUX`]bYg`"h`fYgdcbgY`hc`h\UhZYXVUW`U`UggYgga Ybh]Ug\_g`fY`Uh`X]fYWhimhc`h\Y`  
W]Ybhdfc`YWhi`hik Ug`]XYbh]ZYX`]b`dUghZYXVUW`h`Uh`h\Yf`k Ug`U`bYX`Zcf`gh XYbhg`hc`\Uj Y`a cfY`]b`WUgg`  
h]a Y`hc`k cf\_`cb`[ fci d`dfc`YVWg`UbX`]bX]j ]Xi U`dfc`YVWg`"h`fYgdcbgY`hc`h\UhZYXVUW`h\YfY`]g`a cfY`]b`WUgg`  
U`cWYhX`Zcf`]bXYdYbXYbh`/[ fci d`fYgYUfVX`hUg\_g`k ]h]b`h\Y`k YY`\_miWci fgY`ghf] Whi fY`"H\YfY`]g`bck`a cfY`  
WUgg`h]a Y`hc`k cf\_`k ]h`c`h\Yf`gh XYbhg`Z]Yb[ U[ ]b[ ]b`WYUhj`Y`dfcV`Ya`gc`] ]b[ ""`hik Ug`]XYbh]ZYX`]b`dUgh`  
ZYXVUW`h`Uh`Ub`UWYj`Y`UbX`]bhYfUWYj`Y`WUggfcca`Ybj`]fcb`a Ybhk Ug`a cghYb[ U[ ]b[ `UbX`VYbYZ]WU`hc`  
YUfb]b[ ""`h`fYgdcbgY`hc`h\UhZYXVUW`YWhi fY`UWYj`]hYg`\Uj Y`VYYb`fYXYg][ bYX`hc`YbWci fU[ Y`[ fYUHYf`  
dUfh]W]dUh]cb`UbX`gh XYbhYb[ U[ Ya Ybhk ]h`Wci fgY`WcbhY`bhk ]h`Ub`Ya d\Ug]g`cb`gY`ZX]fYWhYX`YUfb]b[ "

# Gi Va ]gg]cb`cZ5ggYgga YbhHUg\_g

Hi fb]hb`Gi Va ]gg]cb

Ƴmci`YbWci bhYf`U`dfcV`Ya`k`Yb`U`H`Ya`dh]b[`hc`gi`Va`]hrci`f`Ugg][`ba`Ybh`h`fci`[`\`Hi`fb]`hbzd`YUgY`  
H`Y`d`cbY`9I`H`fbU`Gi`ddcfhcb`-`),`"``"``%cf`Ya`U`H`Ya`cb`[YI`H`fbU`H`hgi`ddcfh`i`bgk`"YXi`"Ui`"Gi`ddcfh`  
`ci`fg`UfY`,`.\\$\\$Ua`-`-%\\$.`\\$da`cb`k`YY`XUmg`UbX`-`.\\$\\$Ua`-`\).`\\$da`cb`k`YY`YbXg`f`l`\\*\)`XUmg`U`mY`UfL`Ƴmci`  
UfY`i`bUV`Y`hc`gi`Va`\]hrci`f`Ugg\]\[`ba`Ybh`Xi`Y`hc`U`ZU`h`k`\]h`Hi`fb\]`hb`mci`a`Um`Udd`m`Zcf`Ub`YI`H`bg\]`cb`Z`Vi`hrci`  
a`i`gh`fY`hU\]`b`mci`f`h\]`W`Y`hbi`a`VYf`Z`ca`9I`H`fbU`Gi`ddcfh`fU`cb\[`k`\]h`Ub`mci`h`Y`f`Y`Y`Ub`h`Xc`W`a`Y`b`hg`t`hc`  
\]b`Wi`XY`Ug`Y`j`\]`XY`b`W`hc`gi`ddcfh`mci`f`YI`H`bg\]`cb`Udd`\]`W`h`cb`"Ƴmci`Ya`U`9I`H`fbU`Gi`ddcfh`mci`k`\]`  
Ui`hca`U`h\]`W`m`f`Y`W`\]`Y`U`h\]`W`Y`hbi`a`VYf`Z`Vi`h\]`Z`mci`H`Y`d`cbY`mci`k`\]`b`Y`Y`X`hc`gd`Y`W`Z`W`m`Ug`Zcf`cbY`"  
Hi`fb\]`hb`U`gc`d`fcj`\]`XY`g`i`d`X`U`H`g`cb`h`Y`f`g`m`g`h`Ya`g`h`U`h`g`cb`H`k`\]`H`Y`f`"](#)

;`Yb`Y`f`U`m`Z`Ugg`Y`gga`Y`bh`h`Ug`\_`g`a`i`gh`V`Y`gi`Va`]`h`Y`X`Y`Y`W`f`cb`]`W`m`j`]`U`Y`]`h`Y`f`Hi`fb]`hb`cf`U`A`cc`X`Y`  
Ugg][`ba`Y`b`h`f`b`]`b`g`h`U`b`W`g`k`Y`f`Y`h`g`]`g`b`c`h`d`c`g`g`]`V`Y`Z`]`h`k`]`V`Y`g`f`U`H`X`cb`mci`f`W`ci`f`g`Y`g`A`cc`X`Y`g`]`H`k`]`h`  
U`h`f`b`U`h`]`Y`gi`Va`]`gg]`cb`XY`hU]`g`"

:`cf`]`b`Z`fa`U`h]`cb`cb`ck`hc`gi`Va`]`h`Ugg][`ba`Y`b`hg`cb`]`b`Y`j`]`U`A`cc`X`Y`.

[\`h`d`g`#`g`h`XY`b`h`i`bgk`"YXi`"Ui`#`ck`!`gi`Va`\]`h`Ugg\]\[`ba`Y`b`h`a`cc`X`Y`](#)

@U`H`5`gg`Y`gga`Y`bh`DY`b`U`h]`Y`g`

G`h`XY`b`hg`U`fY`f`Y`g`d`c`b`g`]`V`Y`Zcf`h`Y`gi`Va`]`gg]`cb`c`Z`Ugg`Y`gga`Y`bh`h`Ug`\_`g`V`m`h`Y`f`Y`ei`]`f`Y`X`X`U`H`g`U`b`X`h`a`Y`g`  
8`Y`d`Y`b`X`]`b[`c`Z`h`Y`YI`H`b`h`c`Z`X`Y`Um]`b`h`Y`gi`Va`]`gg]`cb`c`Z`U`b`Ugg`Y`gga`Y`bh`h`Ug`\_`d`U`gh`h`Y`Xi`Y`X`U`H`U`b`X`h`a`Y`z`  
cbY`c`Z`h`Y`Z`c`ck`]`b[`"U`H`d`Y`b`U`h]`Y`g`k`]`Udd`mi`b`Y`gg`gd`Y`W`U`W`b`g`]`X`Y`f`U`h]`cb`cf`U`V`U`b`\_`Y`h`YI`H`bg]`cb`Xi`Y`hc`U`  
H`V`W`b`]`W`ci`hU[`Y`]`g[`f`U`b`H`X`":`cf`h`Y`di`f`d`c`g`Y`c`Z`U`H`d`Y`b`U`m`W`U`W`U`h]`cb`Z`U`X`U`m]`g`X`Y`Y`a`Y`X`hc`V`Y`Y`U`W`  
&(!`ci`f`d`Y`f`]`c`X`f`c`f`d`U`f`h`h`Y`f`Y`c`Z`d`U`gh`h`Y`g`h]`di`U`H`X`X`Y`U`X`]`b`Y`Zcf`gi`Va`]`gg]`cb`"

K`cf`\_`gi`Va`]`h`Y`X`Y`gg`h`U`b`%`\$`X`U`mg`U`Z`h`Y`f`h`Y`g`h]`di`U`H`X`X`Y`U`X`]`b`Y`]`g`gi`V`Y`W`h`c`U`X`Y`X`i`W`h]`cb`c`Z`)\_`c`Z`h`Y`  
h`c`hU`U`k`U`f`X`U`V`Y`a`U`f`\_`Z`ca`h`Y`a`U`f`\_`h`U`h`k`ci`X`U`j`Y`V`Y`Y`b`U`W`]`Y`Y`X`]`Z`b`c`h`Zcf`h`Y`d`Y`b`U`m`Zcf`Y`j`Y`f`m`X`U`m`  
d`U`gh`h`Y`g`h]`di`U`H`X`X`Y`U`X`]`b`Y`Zcf`gi`Va`]`gg]`cb`"H`U`h]`g`Z`U`g`h`XY`b`h`k`c`gi`Va`]`hg`U`b`Ugg][`ba`Y`b`h`k`]`h`U`  
g`h]`di`U`H`X`X`Y`U`X`]`b`Y`c`Z`(\$da`cb`%`A`Um`&`\$`%`U`h`(%\$da`cb`%(A`Um`&`\$`%`k`]`b`W`f`U`X`Y`X`i`W`h]`cb`c`Z`\$`i`"

HUg`\_`k`]`h`U`b`c`b`d`Y`f`W`b`hU[`Y`a`U`f`\_`

`Z`h`Y`h`Ug`\_`]`g`a`U`f`\_`Y`X`ci`h`c`Z`&)`z`h`Y`b`"U`H`gi`Va`]`gg]`cb`k`]`U`h`f`U`W`h`U`d`Y`b`U`m`c`Z`U`X`Y`X`i`W`h]`cb`c`Z`%`&)`Z`ca`h`Y`  
a`U`f`\_`U`k`U`f`X`Y`X`hc`h`Y`g`h`XY`b`h`Zcf`Y`j`Y`f`m`&(!`ci`f`d`Y`f`]`c`X`f`c`f`d`U`f`h`h`Y`f`Y`c`Z`d`U`gh`h`Y`g`h]`di`U`H`X`X`Y`U`X`]`b`Y`"  
9I`Ua`d`Y`5`gh`XY`b`h`gi`Va`]`hg`U`b`Y`gg`Um`(`,`ci`fg`U`b`X`%`\$`a`]`bi`H`g`U`Z`h`Y`f`h`Y`g`h]`di`U`H`X`X`Y`U`X`]`b`Y`"H`Y`h`c`hU`  
d`c`g`g`]`V`Y`a`U`f`\_`Zcf`h`Y`Y`gg`Um]`g`&)"H`Y`Y`gg`Um`f`Y`W`]`Y`g`U`a`U`f`\_`c`Z`%`"H`Y`g`h`XY`b`h`g`a`U`f`\_`]`g`h`Y`f`Y`Zcf`Y`%`+`-`  
&)`f`\$`\$)`l`"l`Q1`%`&)"

HUg`\_`k`]`h`U`d`Y`f`W`b`hU[`Y`a`U`f`\_`

`Z`h`Y`h`Ug`\_`]`g`a`U`f`\_`Y`X`ci`h`c`Z`%`\$`\$`i`z`h`Y`b`"U`H`gi`Va`]`gg]`cb`k`]`U`h`f`U`W`h`U`d`Y`b`U`m`c`Z`U`X`Y`X`i`W`h]`cb`c`Z`)\_`Z`ca`  
h`Y`a`U`f`\_`U`k`U`f`X`Y`X`hc`h`Y`g`h`XY`b`h`Zcf`Y`j`Y`f`m`&(!`ci`f`d`Y`f`]`c`X`f`c`f`d`U`f`h`h`Y`f`Y`c`Z`d`U`gh`h`Y`g`h]`di`U`H`X`X`Y`U`X`]`b`Y`"  
9I`Ua`d`Y`5`gh`XY`b`h`gi`Va`]`hg`U`b`Y`gg`Um`(`,`ci`fg`U`b`X`%`\$`a`]`bi`H`g`U`Z`h`Y`f`h`Y`g`h]`di`U`H`X`X`Y`U`X`]`b`Y`"H`Y`Y`gg`Um`  
]`g`a`U`f`\_`Y`X`ci`h`c`Z`%`\$`\$`i`"H`Y`Y`gg`Um`f`Y`W`]`Y`g`U`a`U`f`\_`c`Z`\*`,"H`Y`g`h`XY`b`h`g`a`U`f`\_`]`g`h`Y`f`Y`Zcf`Y`\*`,`-`%`1`)"`

K`cf`\_`gi`Va`]`h`Y`X`%`\$`hc`%`-`X`U`mg`U`Z`h`Y`f`h`Y`g`h]`di`U`H`X`X`Y`U`X`]`b`Y`k`]`V`Y`U`gg`Y`gg`Y`X`U`b`X`Z`Y`X`V`U`W`\_`d`f`c`j`]`X`Y`X`  
Vi`h`U`a`U`f`\_`c`Z`n`Y`f`c`k`]`V`Y`f`Y`W`f`X`Y`X`"Z`h`Y`k`cf`\_`k`ci`X`U`j`Y`f`Y`W`]`Y`X`U`d`U`gg`a`U`f`\_`Vi`h`Zcf`h`Y`"U`H`b`Y`gg`U`b`X`



h\k cf\_ ]g'U'Wca di `gcfmWci fgY'Wca dcbYbhfi fi'Y'fYei ]fYa YbhZ'U'ghi XYbhk ]`VY'XYYa YX'hc`Uj'Y'a Yh hUhfYei ]fYa Ybh'

K cf\_ ]gi Va ]hYX`&\$`cf'a cfY'XUmg`UZYf'hY'gh]di `UH'X'XYUX`]bY'k ]`bchVY'UWV'dh'X'Zcf'UggYgga Ybh UbX'k ]`fYW']Y'bc'ZYXVUW`za Uf\_`cf'[ fUXY"Z'hY'UggYgga YbhUg\_]g'U'Wca di `gcfmWca dcbYbhicZ'hY'Wci fgY'U'ghi XYbhk ]`fYW']Y'Ub'`bgUhgZUWcfmi: U]`fi : E[ fUXY'Ug'U'fYgi `hcZi bgUhgZUWcfmidYfZ'fa UbWV ]b'Ub'YggYbh]U'Wca dcbYbhicZ'hY'Wci fgY"

[H\ \]g' \]bZ'fa Uh\]cb \]g'U'gc'Uj U\]UV'Y'Uh \hfdg.##k k k "Ufng"i bkg "YXi "Ui #W ffYbhghi XYbhg#JWJXYa \]W \]bZ'fa Uh\]cb#dfch'Wc`g!\[ i \]XY`\]bYg#](#)

Gi dd`Ya YbhUfmUggYgga Ybhg`

H\Y'Z'fa `cZ'hY'gi dd`Ya YbhUfmUggYgga YbhYXX'`bchVY']XYbh]WV`hc`h'Y'cf][ ]bU'UggYgga YbhVi h]ha i gh UggYgg'h'Y'gUa Y`Y'Ufb]b[ `ci h'Wca Yg"

5`gi dd`Ya YbhUfmUggYgga Ybhk ]`VY'cZYfYX'hc`U'ghi XYbhk \c`ZU]g'Ub'UggYgga YbhUg\_]b'Y]h'Y'f'cZ'hY'Z`ck ]b[ `WfW a ghUbWg.

- Gi dd`Ya YbhUfmUggYgga Ybhk ]`VY'cZYfYX'hc`U'bhghi XYbhk \c`ZU]g'Ub'UggYgga YbhUg\_]Z'hY]f'fYei Ygh Z'f'GdYWU`7 cbg]XYfUhg]cb`Z'f'h'UhfUg\_]g'Uddfcj YX" H\Y'a Uf\_`Uk UfYX'Z'f'h'Y'UggYgga YbhUg\_]k ]`VY'VUgYX'gc`Y'micb'h'Y'gi dd`Ya YbhUfmUggYgga Ybh'

- K \YfY'U'ghi XYbhZU]g'Ub'UggYgga YbhUg\_]b'U'Wci fgY']b'h'Y'Z]bU'h'fa `cZ'hY]f'f'cf[ fUa z'Vi hXcYg'bch \Uj'Y'Ub'Uddfcj YX'GdYWU`7 cbg]XYfUhg]cb`Z'f'h'UhfUg\_]z'gi dd`Ya YbhUfmUggYgga Ybhk ]`gh]`VY'cZYfYX']b WJgYg'k \YfY'dUgg]b[ `h'Y'Ug\_]k ci `X'\Uj'Y'fYgi `h'X']b'h'Y'ghi XYbhUg]b[ `h'Y'Wci fgY'UbX'Wca d'Y]b[ `h'Y'dfc[ fUa "

GWcc`g'a UmWccgY'hc`cZYf'gi dd`Ya YbhUfmUggYgga Ybhg'i bXYf'c'h'Y'f'WfW a ghUbWg'h'Ub'h'cgY`]gh'X UVcj Y"8YW]g]cbg`VmGWcc`g'hc`cZYf'gi dd`Ya YbhUfmUggYgga Ybhg'i bXYf'c'h'Y'f'WfW a ghUbWg'h'Ub'h'cgY`]gh'X UVcj Y'g'ci `X'VY'[ i ]YX'Vm'c'WV`dfc'WggYg'hc`dfca ch`df]bW]d'YX'UbX'Wcbg]gh'bhXYW]g]cb!a U\_]b[ "

H\Y'a Uf\_`Uk UfYX'Z'f'U'gi dd`Ya YbhUfmUggYgga YbhZ']b'h'Y'UVgYbW'cZGdYWU`7 cbg]XYfUhg]cbZ'k ]`VY'WddYX.

- K \YfY'U'gi dd`Ya YbhUfmUggYgga Ybh]g'dfcj ]YX'Z'f'U'ghi XYbhk \c`ZU]g'Ub'UggYgga YbhUg\_]b'Ubm Wci fgY'Z'h'Y'Z]bU'a Uf\_`Uk UfYX'Z'f'h'Y'UggYgga YbhUg\_]k ]`VY'WddYX'Uh) \$i "
- K \YfY'U'gi dd`Ya YbhUfmUggYgga Ybh]g'dfcj ]YX'hc`U'ghi XYbhk ]h`U': U]`VUgYX'cb'h'Y'c] YfU`Wci fgY'fYgi `h'Y'Z]bU'a Uf\_`Z'f'h'Y'Wci fgY'k ]`VY'WddYX'Uh) \$i "

H\ ]g' ]bZ'fa Uh]cb ]g'U'gc'Uj U]UV'Y'Uh

[\hfdg.##k k k "Ufng"i bkg "YXi "Ui #W ffYbhghi XYbhg#JWJXYa \]W \]bZ'fa Uh\]cb#dfch'Wc`g!\[ i \]XY`\]bYg#](#)

GdYWU`7 cbg]XYfUhg]cb`5 dd`]W]h]cbg

Mci `Wb'Udd'm'Z'f'gdYWU`Wcbg]XYfUhg]cb`k \Yb']`bYgg'c'f'ch'Y'f'WfW a ghUbWg']bh'fZYf'k ]h'mci f UggYgga YbhYfZ'fa UbW"

G]W\_bYggza ]gUXj Ybh'f'Y'c'f'ch'Y'f'WfW a ghUbWg'VYncbX'mci f'W'bf'c`a Um

f`DfYj Ybhmc i`Zca`Wca d`Yh]b[`U`Wci fgY`fYei ]fYa Ybř

f`?YYd`mci`Zca`UHYbX]b[`Ub`UggYggUV`Y`UW]j`]mž

f`Ghd`mci`gi Va`]h]b[`UggYggUV`Y`k cf\_`Zcf`U`Wci fgYž

f`G][`b]Z]W]b]h]m]U]Z]Y]W]h]m]i`f`d`Y`f`Z`c`f`a`U`b`W`W`]`b`U`g`g`Y`g`g`U`V`Y`k`c`f`\_`ž`V`Y`]`h`U`Z`c`f`a`U`Y`b`X`!`c`Z`h`f`a`Y`I`U`a`]`b`U`h`c`b`ž`U`W`U`g`g`h`Y`g`h`ž`U`U`V`c`f`U`h`c`f`m`h`Y`g`h`ž`U`g`Y`a`]`b`U`f`d`f`Y`g`Y`b`h`U`h`c`b`c`f`U`b`m`c`h`Y`f`Z`c`f`a`c`Z`U`g`g`Y`g`g`a`Y`b`h`

:`c`f`Z`f`h`Y`f`X`Y`h`U`]`g`]`b`f`Y`U`h`c`b`h`c`G`d`Y`W`U`7`c`b`g`]`X`Y`f`U`h`c`b`]`b`W`i`X`]`b`[`K`Y`b`h`c`5`d`d`m`ž`<`c`k`h`c`5`d`d`m`U`b`X`G`i`d`d`c`f`h`]`b`[`8`c`W`a`Y`b`h`U`h`c`b`d`Y`U`g`Y`f`Y`Z`f`h`c`h`Y`G`d`Y`W`U`7`c`b`g`]`X`Y`f`U`h`c`b`k`Y`V`g`]`h`.

[\hhdg.#g\]i XYb\]h\]i bgk "YXi "Ui #gdYW\]U!Wcbg\]XYfU\]h\]cb](#)

## 5 WUXYa ]W<c bYghmUbX 'D`U[ ]Uf]ga

D`U[ ]Uf]ga ]g'i g]b[ 'hY'k cfXg'cf]XYUg'cZchYfg'UbX'dfYgYbh]b[ 'hYa 'Ug'mci f'ck b" #WU b'U\_Y'a Ubm Z'fa gž Z'ca 'XY]VYfUHY'WXU]b[ 'hc'UW]XYbU`mW'dm]b[ 'Z'ca 'U'gci fW'k ]h'ci hUW\_bck 'YX[ Ya Ybh'

I BGK '[ fci dg'd`U[ ]Uf]ga ]bhc'hY'Z`ck ]b[ 'WU]Y[ cf]Yg.

7cdm]b[ .i g]b[ 'hY'gUa Y'cf'j Yfmg]a ]Uf'k cfXg'hc'hY'cf][ ]bU`hYI hcf]XYU'k ]h'ci hUW\_bck 'YX[ ]b[ 'hY'gci fW'cf'i g]b[ 'ei chU]cb'a Uf\_g" 'H\]g'U'gc'Udd'Yg'hc' ]a U[ Ygž UfhUbX'XYg][ b'dfc'YWgž Ug'k Y`Ug dfYgYbU]cbg'k \YfY'gca YcbY'dfYgYbhg'UbchYf'g' ]XYUg'cf'k cfXg'k ]h'ci hWYX]h'

#Uddfcdf]UHY'dUfUd\fUg]b[ .7 \Ub[ ]b[ 'U'Z'k 'k cfXg'UbX'd\UgYg'k \]Y'a cghm'fYU]b]b[ 'hY'cf][ ]bU'gfi W' fY'UbX'#f'dfc[ fYgg]cb'cZ]XYUg'cZ'hY'cf][ ]bU'z'UbX' ]bZ'fa U]cb'k ]h'ci hUW\_bck 'YX[ Ya Ybh' 'H\]g'U'gc'Udd'Yg' ]b'dfYgYbU]cbg'k \YfY'gca YcbY'dUfUd\fUgYg'UbchYf'g' ]XYUg'cf'k cfXg'k ]h'ci hWYX]h'UbX'hc d]Y]b[ 'hc[ Y'hY'f'ei chYg'UbX'dUfUd\fUgYg' ]bhc'U'bYk 'k \c'Y'z'k ]h'ci hUddfcdf]UHY'fYZYfYbW]b[ "

7c`i g]cb. 'k cf\_]b[ 'k ]h'chYfg'Vi hdUgg]b[ 'cZ'hY'k cf\_]Ug'U'dYfgcb'g' ]bX]j ]Xi U'k cf\_"7c`i g]cb'U'gc ]bWi XYg'dfcj ]X]b[ 'mci f'k cf\_'hc'UbchYf'g'hi XYbhVYZ'fY'hY'Xi Y'XU]Y'z'cf'Z'f'hY'di fdcgY'cZ'hYa d'U[ ]Uf]g]b[ 'UhUbmi]a Y'z'dUm]b[ 'UbchYf'dYfgcb'hc'dYfZ'fa 'Ub'UWUXYa ]W]Ug\_ž'ghU' ]b[ 'cf'UW'ei ]f]b[ UbchYf'dYfgcb'g'UWUXYa ]Wk cf\_]UbX'W'dm]b[ ]ž'cZ]f]b[ 'hc'W'ca d'Y'h'UbchYf'dYfgcb'g'k cf\_]cf'gYY\_]b[ dUma YbhZ'f'W'ca d'Y]b[ 'UWUXYa ]Wk cf\_"

#Uddfcdf]UHY'W]U]cb. 7 ]b[ 'gci fW'g'k \]W\Uj Y'bchVYYb'fYUXž'k ]h'ci hUW\_bck 'YX[ ]b[ 'hY'"gYW'cbXUfm' gci fW'Z'ca 'k \]W\_]bck 'YX[ Y'cZ'hYa '\Ug'VYYb'cV]b]bYX"

8i d']WU]cb'f'gY'Z'd`U[ ]Uf]ga "L'gi Va ]h]b[ 'mci f'ck b'k cf\_ž]b'k \c'Y'cf' ]b'dUf'ž'k \YfY' ]h\Ug'dfYj ]ci g'm VYYb'dfYdUfYX'cf'gi Va ]h]YX'Z'f'UbchYf'UggYgga Ybhcf'W'ci fgY'Uhl BGK 'cf'UbchYf'i b]j Yfg]m'

7cffYW'fYZYfYbW]b[ 'dfUW]W'g.

- DUfUd\fUg]b[ ž'gi a a Uf]g]b[ ž'YggUm'k f]h]b[ 'UbX'h]a Y'a UbU[ Ya Ybh
- 5ddfcdf]UHY'i gY'cZ'UbX'U]f]Vi h]cb'Z'f'U'fUb[ Y'cZ'a U]f]U'g' ]bWi X]b[ 'hYI hž]a U[ Ygž Z'fa i 'UY'UbX W'cbW'drg"

#X]j ]Xi U'Ugg]ghUbW' ]g'Uj U]UV'Y'cb'fYei YghZ'ca 'H\Y'@YUf]b[ '7YbhfY'f\hd. ## k k "Wi bgk "YXi "Ui #"  
Gh XYbhg'UfY'U'gc'fYa ]bXYX'h.UhWfYZ 'h]a Y'a UbU[ Ya Ybh]g'Ub ]a dcfU]bhdUfhicZ'gh XmiUbX'cbY'cZ'hY ]XYbh]Z]YX'Wli gYg'cZ'd`U[ ]Uf]ga ]g'dccf'h]a Y'a UbU[ Ya Ybh'Gh XYbhg'g'lc'i 'X'U'ck 'gi Z]W]Ybh]a Y'Z'f'fYgUfW'ž'XfU]h]b[ 'UbX'dfcdYf'fYZYfYbW]b[ 'cZ'gci fW'g' ]b'dfYdUf]b[ 'U'UggYgga Ybh]h'a g"

I BGK '@]VfUfm'U'gc'\Ug'hY'9@G9'hc'Uj U]UV'Y'hc'Ugg]ghmci 'k ]h'mci f'gh XmiUhl BGK "'9@G9' ]g XYg][ bYX'hc' ]b]f'cXi W' 'bYk 'gh XYbhg'hc'gh Xn]b[ 'Uhl BGK 'Vi h]h'WU'U'gc'VY'U' ]fYUhfY'Z]Yg\Yf'Xi f]b[ 'mci f'gh Xn'

7ca d'Y]b[ 'hY'9@G9'h'hc'f]U'UbX'ei ]n'k ]`YbUVY'mci 'hc.

- UbU'mgY'hc'd]Wgž'd`Ub'fYgdcbgYg'UbX'cf[ Ub]gY'fYgYUfW'Z'f'UWUXYa ]Wk f]h]b[ 'UbX'chYf'UggYgga Ybh]Ug\_g

- i bXYfghUbx'mci f'f][ \hg'UbX'fYgdcbg]V] ]hYg'Ug'U'gh XYbhUhl BGK
- VY'Uk UfY'cZd'U[ ]Uf]ga ž'Wcdmf][ \hžI BGK 'Gh XYbh7cXY'cZ7cbXi WñUbX'5WwdfUV'Y'I gY'cZ I BGK '⇒H'F Ygci fW'g'Dc`]Wñ
- VY'Uk UfY'cZñY'ghUbXUfXg'cZVY\Uj ]ci f'YI dYWñX'cZYj Yfmcby' ]b'ñY'I BGK 'Wca a i b]m
- `cWñH'gYfj ]Wg'UbX' ]bZcfa Uhcb'UVci hl BGK 'UbX'I BGK '@VfUfm

Gca Y'cZñYgY'UfYUg'k ]`VY'ZJa ]]Uf'hc'mci žcñYfg'k ]`VY'byk "; U]b]b[ 'U'gc`X'i bXYfghUbx]b[ 'cZU`ñY fY'UH'X'UgdYWñ'cZ9@G9'k ]`Y'd'mci 'a U\_Y'ñY'a cghcZmci f'gh X]Yg'Uhl BGK ""

[\hhd. #gj V'YWñ i \]XYg" \]VfUfm'i bgk "YXi "Ui #` \]gY#UVci h' \]gY](#)

