



**ARTS3061**



7ci fgY`Cj Yfj ]Yk

GHJZZ7cbHJW`8YHU`g

7cbj Ybcfg

B Ua Y	9a U]	5j U]UV]]m	@cWU]cb	D\cbY
; fY[ `8c`[cdc`cj	[ fY[ X4 i bgk "YXi "Ui	K YXbYgXUm %&.\$\$da `cfVm Uddc]bha Ybh	F cca `&\$+ž F cVYfh K YVghYf 6i ]X]b[	\$( &( *%\$%&'

GWcc`7cbHJW`bZcfa Uh]cb

GWcc`cZH`Y`5fng`UbX`A`YX]U

F cca ` ` %&ž @Y] Y` ž F cVYfhK YVghYf`6i ]X]b[ `fl` %Ł

D\cbY. `f\$&Ł`-` , ) `( , ) \*

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

K YVg]hY: [k k k "Ufng"i bgk "YXi "Ui #gUa](#)

H\Y`GWcc`cZH`Y`5fng`UbX`A`YX]U`k`ci`X`\_Y`h`F`YgdYW`m`5W`bck`YX[`Y`h`Y`HfUX]h]cbU`7`i`g]cX]Ubgž`h`Y`6YXY[`U`f`Y`bg]b[`h`cb`W]a`di`gŁž;`UX][`U`f]`m]UbX`5`fh`8`Yg][`b`7`Ua`di`gYgŁ`UbX`h`Y`B[`i`bbUk`U`dYcd`Y`f]b`i`g]fU]Ub`8`YZ`bW`:`cfW`5`WUX`Ya`m]b`7`UbVYffUŁ`cZH`Y`UbXg`k`YfY`YUW`W]a`di`g`cZI`BGK`]g`c`W]h`Y`X"

7 ci fgY'8YHJ]`g

7 fYX]hDc]bqg`\*`

Gi a a UfmicZ\hY'7 ci fgY

H\]g`Wci fgY`dfcj ]XYg`gca Y`dfUW]WU`YI dYf]YbW`]b] ]XYc!a U\_]b[ `UbX[ ]j Yg`mci `Ub`i bXYfg]UbX]b[ `cZ\hY VUg]WVc`bW`dthg`hUhi bXYf]Y`U`j ]XYc`dfcXi W]cbz`Zca`gW]dhrc`Z]bU`W`H`J ]XYc`DfcXi W]cb`U`ck`g`mci`hc`di`h]bhc`dfUW]WU`gca Y`cZ\hY`hYcf]Yg`UbX`Vc`bW`dthg`U`a`U]f]U`g`hUhmci`U`j Y`Vc`j YfYX`]b`mci`f`dfY`W`X]b[ gh`X]Yg`"Mci`k`j`U`j Y`hY`c`ddcfh`b]mhc`WYU]Y`U`fUb[ Y`cZg`c`fhj ]XYc`k`cf`g`k`]h`Ub`Ya`d`Ug]g`cb`Vc`bW`dthg`U`]b]bcj`U]h]cb`"Mci`UfY`YbWci`fU[ YX`hc`cc`Z`f`dfUW]WU`gc`i`h]cbg`hc`hYcfY]WU`dfcV`Ya`g`Vc`bW`fb]b[ `Z]a`# ]XYc`hUhmci`a`Um`U`j Y`YbWci`b]fYX`Xi`f]b[ `mci`f`Z]a`UbX`a`YX]U`Wci`fgYg`"Mci`k`j`VY`]b]f`c`Xi`W`X`hc`hY`VUg]W]hY`W`b]WU`g\_]`g`cZ`c`d`Y`f`U]h]b[ `U`W]a`Y`f`U`Z`]`[`h]b[ `Z`g`W]d`h]b[ `Z`d`f`Y`!`d`f`c`Xi`W]cb`d`U`bb]b[ `Z`YX]h]b[ `UbX`d`f`Y`g`Y`b`h]h]cb`"H\Y`Wci`fgY`U]a`g`hc`]b`WY`U`g`Y`mci`f`dfUW]WU`\_`b`ck`YX[ Y`UbX`Uk`UfYbYgg`cZ]a`Ub[ i U[ Y`Z`gm`Y`Z`d`f`c`W`gg`Z`UbX`hY`W`b]ei`Y`Vm`k`Um`c`Z`W`U`Z]h`U`g`Y`X`Z`b`W]cb`U`k`cf`g`l`c`d`YI`Y`f`W]g`Y`g`Z`]b`X`Y`d`Y`b`X`Y`bh`U`gg`Ya`V`m`UbX`U`gi`V`g`h`U`b]h]U`[ `f`ci`d`!`[`Y`b`Y`f`U]hY`X`d`f`c`Xi`W]cb`d`f`c`W`gg`"H\Y`Wci`fgY`YbWci`fU[ Yg`Wc`U`V`c`f`U]h]Y`k`cf\_]b[ `dfUW]WU`g`hc`U`d`f`c`Z`Y`gg]cb`U`g`h`U`b`X`U`f`X`"

h`hY`Z]f`g`h]g]`k`YY`g`Z`mci`f`dfcXi`W]cb`g\_]`g`k`j`VY`XYj`Y`cd`YX`UbX`W`U`Y`b[ YX`h`f`ci`[ `U`f`U`b[ Y`c`Z`hY`W`b]WU`YI`Y`f`W]g`Y`g`UbX`U`g`Y`f]Y`g`c`Z`c`V`g`f`i`W]cb`g`"Mci`k`j`VY`U`gc`f`Y`ei`]f`Y`X`hc`XYj`Y`cd`hY`g`W]d`h]U`b`X`d`f`Y`!`d`f`c`Xi`W]cb`c`Z`mci`f`dfc`Y`W`"h`hY`g`Y`W`c`b`X`d`U`f`h`c`Z`hY`W`ci`fgY`Z`k`cf\_]b[ `U`g`U`[ `f`ci`d`mci`k`j`d`f`c`Xi`W`h`k`c`g`l`c`f`h]Z]a`g`"H\Y`g`Y`Z]a`g`k`j`hY`b`VY`W`f`U]hY`X`UbX`d`f`c[ `f`U`a`Y`X`Z`f`U`g`d`Y`W]U`g`W`Y`Y`b]b[ `U`h`hY`Y`b`X`c`Z`h`f`a`"H\Y`g`W`Y`Y`b]b[ `c`Z`U`f`U`b[ Y`c`Z`g`l`c`f`h]Z]W]cb`UbX`Z`U`W`U`Z]a`g`k`j`]b]f`c`Xi`W`mci`hc`hY`U`f`h`c`Z`hY`g`l`c`f`h]Z]a`"Mci`k`j`VY`Y`b`W`ci`fU[ YX`hc`W]h]WU`m`Y`j`U`i`U]hY`h`Y`g`Y`Z]a`g`Z`mci`f`ck`b`k`cf\_]b[ `UbX`hY`k`cf\_]c`Z`hY`f`g`UbX`hc`hY`g`h`hY`c`f`Y`h]WU`d`c`g]h]cb`g`k`]h`W`Y`U]h]Y`gc`i`h]cbg`UbX`d`f`U`W]WU`YI`Y`f`W]g`Y`g`"

7 ci fgY`@YUfb]b[ `Ci`hWc`a`Yg

- %`8`Ya`cb`g`h`U]hY`hY`VUg]W]W]U`Z`h`UbX`hY`W`b]WU`g\_]`g`b`Y`W`gg`U`f`m`h`c`a`U`\_`Y`U`g`l`c`fhj`]XYc`d`f`c`Xi`W]cb`]b`U`j`U`f]Y`h`m`c`Z`Z`c`f`a`U`h`g`UbX`Z`c`f`X]Z`Y`f`Y`b`h`d`U`h`Z`c`f`a`g`
- &"`5`b`U`m`g`Y`g`l`c`f`h]Z]a`g`!`hY`]f`c`k`b`UbX`c`h`Y`f`g`Z`c`W`g]b[ `c`b`g`f`i`W]h`f`Y`Z`]X`Y`U`g`Z`hY`W`b]ei`Y`Z`g`r`c`f`m`Y`]b[ `Z`U`h]b[ `Z`g`c`i`b`X`Ub`X`Y`X]h]b[
- '`8`Ya`cb`g`h`U]hY`Ub`Ui`X]c]`g]i`U`W`Y`U]h]j`]m`UbX`XYj`Y`cd`W]h]WU`h]b\_]b[ `U`cb[ `k`]h`hY`U`d`d`f`c`d`f]U]hY`g\_]`g`c`Z`YI`d`f`Y`g`g]cb`
- (`8`Yj`Y`cd`g\_]`g`UbX`g`f`U]hY`[ ]Yg`]b`d`U`bb]b[ `UbX`h]a`Y`c`f[ `Ub]g`U]h]cb`
- )`9`I`d`f`Y`g`g`U`X`Y`Y`d`Y`f`i`b`X`Y`f`g`h]U`b`X]b[ `c`Z`g`W`Y`Y`b`W`h`f`Y`UbX`Ub[ i U[ Y`h`f`ci`[ `U`d`f`U`W]WU`UbX`W`Y`U]h]Y`U`d`d`]W]h]cb`
- \*`K`cf\_]`Wc`U`V`c`f`U]h]Y`m`UbX`i`b`X`Y`f`U`\_`Y`U`f`U`b[ Y`c`Z`W`Y`k`f`c`Y`g`hc`U`d`f`c`Z`Y`gg]cb`U`g`h`U`b`X`U`f`X`
- +`B`Y[ `c`h]U]hY`Y`Z`Y`W]j`Y`m`
- ,`9`I`U]h]U`f`U`b[ Y`c`Z`g\_]`g`]b`f`Y`g`Y`U`f`W]b[ `UbX`XYj`Y`cd]b[ `Ui`X]c]`g]i`U`W`c`b`W`d`thg`

HYUWX]b[ `GhfU]hY`[ ]Yg`

K`U]Y`hY`Y]b`g`f`i`W`c`f`g`Z`c`f`G`W`Y`Y`b`D`f`c`Xi`W]cb`==f] ]XYc`D`f`c`Y`W`c`f`Y`W`c`[ `b]g`Y`h`U`h`b`c`h`U`gh`XY`b`h`g`i`b`X`Y`f`U\_]b[ `h]g`W`ci`fgY`k`j`g`Y`\_`hc`k`cf\_]b`hY`Z]a`UbX`a`YX]U`]b`Xi`g`h]Y`g`Z`h]g`W`ci`fgY`]g`g`f`i`W]h`f`Y`X`U`g`U`d`f`c`Xi`W]cb`W`ci`fgY`k`]h`U`[ `U`Y`j`Y`YI`d`Y`W]U]h]cb`g`c`Z`d`f`c`Z`Y`gg]cb`U`W`c`b`Xi`W]Z`f`c`Vi`gh[ `f`ci`d`X`m`b`U`a`]W]g`Z`c`b[ `c]b[ `Z`c`f`a`U]h]Y`Z`Y`X`V`U`W`\_`UbX`U`gi`d`d`c`f`h]Y`Y`b]j`f`c`b`a`Y`b`h`Z`c`f`W`Y`U]h]j`]m`i`A`m`h`Y`U`W]b[ `d`]c`g`c`d`l`m]g`hc`d`f`c]j`XY`U`hY`b`Y`W`gg`U`f`m`a`U]h]f]U`g`Z`Y`b]j`f`c`b`a`Y`b`h`UbX`Z`U`W]j]h]U]h]cb`hc`U`ck`gh`XY`b`h`g`hc`gc`j`Y`d`f`c`V`Ya`g`]b`U`W`Y`U]h]Y`UbX`d`f`U[ `a`U]h]W`a`U`bb`Y`f`=Y`b`W`ci`fU[ Y`g`Y`Z`X`Y`h`f`a`]b`U]h]cb`UbX`b`Y[ `c`h]U]h]cb`g\_]`g`]b`d`f`c]j`X]b[ `gc`i`h]cbg`Z`c`f`d`f`U[ `a`U]h]W`W`c`b]g]X`Y`f`U]h]cb`g`h`U`h`k`j`]b]j`U`f]U`V`m]a`d`U`W]h`c`b`W`Y`U]h]Y`X`Y`W]g]cb`g`"H\]g`Wci`fgY`X`c`Y`g`U`j`Y`U`[ `U`

hja Y'XYa UbXg'ci hg]XY'cZwUgg'hja Y'UbX'Vi hk ]h'ga Ufh'hja Y'a UbU[ Ya YbhU''gh XYbthg'\Uj Y'hY  
cddcfh b]hmhc [ U]b j U'i UV'Y'YI dYf]YbWg''A miHYUW]b[ 'ghfUHY[ m]g'hc'ghfi Wfi fY'U'bi a VYf'cZ\_Ymg\_]`g  
VUgYX'YI YfW]gYg']b'hY'Z]fgh\U'ZcZhY'hYfa 'hc'XYj Y'cd'gh XYbthg'WfUZhig\_]`g'k ]h'a cfY'hja Y'Uj U]UV'Y'hU  
]b'dfYj ]ci g'Wci fgYg'hLYfYVmXYa UbX]b[ '\][\Yf'ei U']mci hWca Yg''=gYY\_'hc'YbWci fU[ Y'gh XYbhWfYUhj ]m  
UbX'Yb[ U[ Ya Ybhk ]h'W]bYa Uh]W\ ]g'hc'fmh'fci [ \ 'fcVi gh[ fci d'Wc''UVcfU]h]cbg'hc'dfcXi W'k cf\_cZU'\][ \  
ghUbXUfX'hU]g']bhYbXYX'hc'VY'gi VgYei YbhmidfYgYbhYX'Uh]Z'a 'Z'ghj] U'g''

H\]g'Wci fgY'jg'Z]fa 'mig]h UHYX']b'U'\UbXg!cb'UddfcUW\ 'hc'gWfYb'gh X]Yg'VmYI d'cf]b[ 'U'fUb[ Y'cZ  
dfcXi W]cb'UddfcUW\Yg']b'hY'g'c'f'h'a i 'h]d'UhZ'fa 'bUffU]j Y'Z'fa U'h''Gh XYbthg'k \c'U]a 'hc'Wc'bh]bi Y'k ]h  
hY'gh XmcZ]Z'a ža YX]U'UbX'Wca a i b]WU]h]cbgždUfh]W 'Uf'mh'cgY'k ]h'U'gdYW]U' ]bhYfYgh]b'W'hi fU'  
fYdfYgYbhU]h]cb'UbX'hY'gh XmcZ]Z'a 'hLYcfmž'gmiYgž[ YbfYg'UbX'\]g'hc'fmk ]''VYbY]h]Z'ca 'h]g'Wci fgY''H\Y  
Wci fgY'YbWci fU[ Yg'Wc''UVcfU]h] Y'k cf\_]b[ 'dfUW]Wg''H\Y'YI YW h]cb'cZWfYk 'fc'Yg'hc'U'dfcZ'gg]cbU'  
ghUbXUfX'k ]''VY'YI dYWfYX'Ug'U'a ]b]a i a 'UbX'k ]''VY'Yj U'i UHYX'U'cb[ 'k ]h'hY'Wc'bw'dh U'ei U']mciZ'hY  
Z]bU'dfc'YW]UbX'hY'WUdUW]mciZ'hY'WfYk 'hc'a U\_Y'WU]b[ Yg'Z'ca 'hLY'fci [ \ 'W'h'hc'hLY'Z]bU'XfU]Z'

5ggYgga Ybh

gUZhmUbX'k Y'!VY]b[ 'cZmci f'Wc''YU[ i Yg''J ]XYc'dfcXi W]cb' ]g'U'Wc''UVcfU]h] Y'dfcW'gg'UbX' ]h]g' YggYbh]U' hUhmc' 'UFY'di bW]i U'žfY' ]UV'Y' UbX'a U]b]U]b'U' \[ \ 'Yj Y'cZ[ fci d' fYgdcbg]V' ]]m' @UH'YbYgg'cf'UVgYbW' Zca' k'cf\_g\cdg'UbX''YW]i fYg'k' ]''i bXYfa' ]bY'mci f'dcgl]cb' ]b' h'Y' Wc'a a i b] ]m'cZ]a a U\_Yfg''5VgYbW'cf' hUFX]bYgg' ]b' U]h'YbX]b[ 'dfcXi W]cb'[ fci d'a Y'Y]b[ g'a Um'fYgi 'h]b'YI di 'g]cb'Zca' h'Y' [ fci d'k' ]h' gi VgYei Ybh UggYgga YbhdYbU'h]Yg'f]Y''mci 'a Um'Z] ]h' ]g' Wc'a dcbYbhcZ'h'Y' Wc'i fgY' '5g'U'dfcXi W]cb' i b] ]G'W'Y'Yb DfcXi W]cb' = ]g'U'h]a Y' ]b'h'bg] ]Y' Wc'i fgY''H'Y'fY' ]g'Ub'Uggi a dh]cb' h'U]ha Ubmik cf\_g\cd'YI YfW]gYg'UbX' h'V]b]W] 'g' ]'g'k' ]''VY' Wc'a d'Y'Y'X'cf'XYj Y'cdYX'ci hg]XY'cZ'WUgg'h]a Y''G'W'Y'Yb'DfcXi W]cb' = Wc'i fgY' Uggi a Yg'h'U]ghi XYb]g'k' ]'' ]b] Ygh]g[ ]b]Z]W]b]h]YbYf[ m]UbX'h]a Y'ci hg]XY'cZ'h'Y'U'c'W]h'X'WUggYg'hc'k'cf\_]b[ cb'h'Y'f'Wc''UVcfU]h] Y'dfcXi W]cbg''h]g' i d'hc' h'Y' [ fci dg'hc' bY[ ch]U]h' a Y'Y]b[ 'UbX'k'cf\_]b[ 'h]a Yg'' G]h' XYb]g'k' ]''VY' UggYggYX'cb'h'Y'f'Yj Y'cZ[ fci d'dU]h]W]dU]h]cb'Ug'k'Y''Ug'cb'h'Y''Yj Y'cZ'dU]h]W]dU]h]cb'h'Ym X]gd'Um]b'k'cf\_g\cd'YI YfW]gYg'UbX'X]gW'gg]cbg''Zmci 'UFY'UVgYb]hmc' 'a i gh]dfc] ]XY'U[ ccX'fYUgcb VUW\_YX' i d'Vm]XcW' a Yb]U]h]cb''H' ]g' Wc'a a ]h]a Ybh]g' bY'W'ggUf]m'hc' ]b]g'h]''U'g]a ]Uf'W' h' fY'hc' h'Y'dfcZ'gg]cbU' Z]a 'UbX'a YX]U' ]b]Xi g]f]m'k' \Y'fY'di bW]i U']m]UbX'dfYdU]h]cb'df]cf'hc'W]''h]a Y' ]g'Z' bXUa Yb]U'Ug' ]g' fYgdcbg]V' ]]m'hc' mci f'h]Ua 'a Ya VYfg'UbX'k' \Y'fY'h'Y' 'k'cf\_' ]g'U'k' Um]g'UVcj Y'dYfgcbU''gg] Yg'UbX'gc'f]h]b[ ci h'W'Y'U]h] Y'X]gU[ fY'Ya Ybh]g' ]g'dU]h]cZ'h'Y'dfcW'gg''h]cfXY'f'hc'UW]Yj Y'cd]h]a U'ci h'Wc'a Ygž'mci 'k' ]''bY'YX'hc' h]U\_Y'Ub'UW]h] Y'UbX'fYgdcbg]V'Y'dU]h]b'k'cf\_g\cd'X]gW'gg]cbgž'Wc''UVcfU]h] Y'dfc'Y'W'g'UbX'ch'Y'f'UggcW]U]h'X' UW]h] ]h]Yg''5a cb[ 'h'Y'W]h]f]U'Z'cf'UggYgg]b[ 'h'Y'ei U']m'cZmci f'UW]h] Y'Yb[ U[ Ya YbhUFY' 'F'YgdcbgYg'hc' h'Y' ]XYUg'X]gW'ggYX' ]b' h'Y'k'cf\_g\cdg'UbX'g'W'Y'Yb]b[ g

5W]h] Y'Wc''UVcfU]h]cb'k' ]h' mci f'Wc''YU[ i Yg'cb' [ fci d'k'cf\_'k' \Y'fY'ck' bYfg'\]d'cZ'W'Y'U]h] Y'Wc'b]h]bh]g'g\UFYX

7fYU]h] Y'gc'i h]cbg'hc'k'cf\_g\cdg'YI YfW]gYg

5h'Y'bxUbW'UbX'di bW]i U']m

DfcZ'gg]cbU'U]h]h] XY

5V']]m'hc' f'U]bg'U]h' Z'Y'X'V'U'W'UbX' ]b'Wc'f'c'f'U]h' ]b'hc' mci f'k'cf\_

7c''UVcfU]h]cb

5''gh' XYb]g'k' ]''VY'Ug\_YX'hc'g'Y'Z'cf[ Ub]gY' ]b]hc' [ fci dg'cZ'h'fY'hc'Z] Y'U]h]U]f]ci g'gh]U[ Yg'cZ'h'Y'k'cf\_g\cd d'fcW'gg''8i f]b[ 'h'Y'Wc'i fgY'ž'gh' XYb]g'k' ]''VY'Ug\_YX'hc' Wc'b]f]Vi h'Y'hc' h'Y' [ fci d' d'fc'Y'W]i'V'midY'f'Z'ca' ]b[ gdY'W]Z]W'f'c'Yg'fY'U]h'X'hc'W]a YfUž'gci bXž'YX]h]b[ ž'dfcXi W]b[ 'UbX'X]fY'W]b[ ''J ]XYc'dfcXi W]cbg'UFY Wc''UVcfU]h] Y'dfcW'ggYg'UbX' ]h]g' ]a d'cf]U]bh]h'U]hmc' 'XYj Y'cd'h'Y' bY'W'ggUf]mg\_] 'g'Z'cf'Y'Z'Y'W]h] Y'h]Ua k'cf\_ž Wc'a a i b]W]h]cb'UbX'Wc'b]W]h]fYgc'i h]cb''h]g' YggYb]h]U' hUhmc' 'U]h'Y'b'X'U''h'Y'd'U]bb]b[ ž'X]gW'gg]cb'UbX'dfY! d'fcXi W]cb'a Y'Y]b[ g'h'U]hmc' 'U]f]U]b[ Y'Ug'U' [ fci d''H'Y'Z'ca U'F'Ygcb'UbW'W' A'Y'Y]b[ ' ]g'U'dfY!d'fcXi W]cb d'fcW'gg'h'U]h]g'U'Wc'i fgY'fYei ]fYa Ybh'UbX'k' ]''bY'W'gg]h]U]h'U'gd'Y'W]U''a Y'Y]b[ 'U]f]U]b[ Ya Ybh]k' ]h' mci f' [ fci d' UbX'mci f'h'hc''h]g'h'Y'fYgdcbg]V' ]]m'cZ'h'Y' [ fci d'hc'U]f]U]b[ Y'h' ]g'k' ]h' mci f'h'hc''Z'Wc'a a i b]W]h]cbg'V'fYU\_Xck'b'k' ]h' ]b'h'Y' [ fci dž' ]h]g' i d'hc' h'Y' [ fci d'hc'Z]b'X'U'g'ci h]cb'hc'a YX]U]h' h' ]g'dfcW'gg' ]b'cfXY'f'hc'UW]Yj Y'U k'cf\_]b[ 'ci h'Wc'a Y''h]g' ]a d'cf]U]bh]h'U]h'Y' [ fci d'bc]h]Z]h'Y'f'h'hc'f'cf'Wc'i fgY'Wc'bj Ybc'f'cZgi W' W]f'W'a gh]UbW'g'UbX'fYei Ygh]Ugg]g]h]UbW' ]b'U'a YX]U]h]cb'dfcW'gg''i 'h]a U]h' m' h'Y'Z]b'U'dfc'Y'W]h]g'U' [ fci d' YI YfW]gY''H' \Y' ]b'h'fYg]g'cZ'h'Y' [ fci d'UbX'h'Y'dfc'Y'W]h]k' ]''VY'd'UW'X'UVcj Y' ]b]X]j ]Xi U'UY'gh'Y'h]W'X]g]fYg''H' ]g' ]g'Ub'cdd'cf]h]b] ]m'Z'f'U''dU]h]W]dU]b]g'hc'XYj Y'cd'h'Y'gi Vh]Y'g\_] 'g'cZ'bY[ ch]U]h]cb'UbX'W'Y'U]h] Y dYfgi Ug]cb'UbX'hc'VY'UV'Y'hc''Yh[ c'cZ]XYUg'YUg]mk' \]Y'a U]b]U]b]b[ 'U'h] [ \h]Z'W'g'cb'h'Y'Wc'bW'dh' F'Y[ i 'Uf'UbX'cb[ c]b[ ' ]bXYdYbXYbh]gh' X'mž'fYUX]b[ ž'bc'h]!h]U\_]b[ ž'gW]V'V' ]b[ 'UbX'Wc'bW'dh'U'g] ]b[ 'UFY YggYb]h]U'Wc'a dcbYb]g'cZ'h' ]g'Wc'i fgY''H' ]g' ]g'U'Wc'i fgY' ]b'W'Y'U]h] ]m]UbX'h' ]g'fYei ]fYg'X]g]W]d' ]b'Y'UbX Ygh]U' ]g' ]b[ 'U'f] [ c'fci g' ]a U[ ' ]b]U]h] Y'dfU]h]W'W'' ]h]g'Ub'YI dY'W]U]h]cb'h'U]h'Y'gh' XYb]g'k' ]''Wc'bXi W]h'Y'f'ck' b fYgYU]f'W'V'UgYX'cb'\_bck'YX[ Y' [ U]b]YX' ]b' : ]a 'G]h'X]Yg''Mci 'UFY'YI dY'W'X'hc'VY'Wc'a Y'Z]a ] ]U]f'k' ]h' h'Y' h'V]b]W]U'UbX'W'Y'U]h] Y'k'f]h]b[ g' ]b' h'Y'Z]Y'X'h'fci [ \ 'fY'Yj Ub]h'fYUX]b[ g'UbX'j U]f]ci g'cb' ]b'Y'h'hc'f]U'g' ]b'cfXY'f'hc' h' ]b'\_UVci h' h'Y'gd'Y'W]Z]W]W'U]Z]g\_]''X]gW'ggYX'UbX'gh'U]h]h' ]b\_]b[ 'cZ'ck' mci 'k'ci 'X'UXU]h]h' ]g'hc' mci f


5ggYgga YbhWf]Hf]U.

6j Ybhj Yžcf][ ]bU`UbX'fcVi ghYb[ U[ Ya Ybhk ]h ]XYUg

F YgdcbgY`hc`\_Ymi\Ya Y

9ZYWij Y`dYfZcfa UbW`cZWYk`fc`YfgŁ

9a chcbU`]a dUW`cZZ]a fgŁ

7`YUf`XfUa Uh]Wghfi Wfi fY`UbX`bUffUhj Y`XYj Y`cda Ybh

C f][ ]bU`fYgdcbgY`hc`gmY`UbX`ghfi Wfi fY

5ddfcdf]UH`dfY!dfcXi Wjcb`XcW a YbhUhcb/`dfcWgg

@A G : YYXVUW\_

Hi fb]hjb'gYHjb[ . H\]g'jg'bchU'Hi fb]hjb'Ugg][ ba Ybh

5ggYgga Ybh' . G\c fhZ'a

GHUfhXUH. Bch5dd]WUVY

@Yb[ h. i d'hc'+a ]bi hYg'cb[ "K f]hYb'a UHYf]U'UVci h%\$\$\$'k cfXg

8YHU]g.

; fci d'Dfc YW

!WUgg'gWYYb]b[ 'UbX'@A G'ZYXVUW

5XX]h]cbU'XYHU]g.

: c'ck ]b[ 'hY'D]hX ]b[ 'cZmci f'dfc YWZ[ fci dg'k ]'VY'gY'YWX"K cf\_]b[ 'b'ga U'dfcXi W]cb'[ fci dg'z'mci k ]'VY'U'cWUHX'U'WYk 'fc'Y'UbX'fYei ]fYX'hc'k cf\_'W'UVcfUHj Y'mhc'XYj ]gY'z'fYgYUfW'z'd'Ub'z'g'cch'UbX'YX]h U'bUffUHj Y'mVUgYX'g'lcfhZ'a 'fa UI "'Yb[ h'+a ]bi hYg'Gh XYbhg'k ]'VY'Ug\_YX'hc'W'a d'YH'U') \$\$'k cfX gY'Z'Yj U'i Uh]cb'Z'fa 'UbX'U'dYYf'fYj ]Yk 'Z'fa 'Uh'hY'W'a d'Y]cb'c'Z'hY'dfc YW'Ug'k Y'Ug'Ub' ]bX]j ]Xi U'm k f]hYb') \$\$'k cfX'dfc YW'fYdcfh' H\]g' ]g'hY'Z]bU'UggYgga Ybh'Ug\_'Gh XYbhg'fYW]j Y'W'bg]XYfUV'Y W'bg] 'hUh]cb'UbX'Z'fa Uh] Y'ZYXVUW\_Xi f]b[ 'hY'dfc W'gg'cZ'f'c'Z'f'c'Y'W'XYj Y'cda Ybh'UbX'cfU'UbX'k f]hYb ZYXVUW\_c'b'hY]f'dfc YW'g Uhgi Va ]gg]cb'UbX'UZ'f'dfYgYbh]h]cb'Uh'hY'Z]bU'gWYYb]b[ 'b][ \h'

: ]a 'H\Ya Y. HC '69'897-898-B'K 99? %

5XX]h]cbU'XYHU]g. 'Ga U'dfcXi W]cb'[ fci dg'k ]'VY'gY'YWX'hc'XYj Y'cd'U'gW]dhZ'f'dfcXi W]cb'hUh YI Ua ]bYg'hY'W'ci fgY'hYa Y'f'hc'VY'X]gW'ggYX' ]b'WUgg' 'Mci 'UfY'YbW'ci fU[ YX'hc'k cf\_'k ]h'U'gW]dhk f]hYb Ug'dUf'hc'Z'hY'gW]dhk f]h]b[ 'W'ci fgY'cf'Ub'UXUd'f]h]cb'cZ'Ub'YI ]gh]b[ ' ]h'fUfmk cf\_'Mci 'a UmVX'Ub[ Y'cf'UXUdh h' ]g'gW]dh'hc'fYgdc'bX'hc'dfcXi W]cb'fYei ]fYa Ybhg'"Mci 'a UmUXX'a cfY'X]U'c[ i Y' ]Z'fYei ]fYX'"7 fYk 'fc'Yg'k ]' VY'U'cWUHX'UbX'mci 'k ]'VY'fYei ]fYX'hc'k cf\_'W'UVcfUHj Y'mhc'XYj ]gY'z'fYgYUfW'z'd'Ub'z'g'cch'UbX'YX]h mci f'bUffUHj Y'fa UI ]a i a 'Yb[ h'+a ]bi hYg'"Mci 'k ]'VY'YI d'YWX'hc'Udd'miU' 'hY'h'W'b]W]UbX h'YcfY]h]W'\_bck YX[ Y'hUh'mci '\Uj Y'YUf'bhXi f]b[ 'mci f'Z'a 'gh'X]Yg'"Mci 'k ]'VY'U'cWUHX'hc'U[ fci d UWW'cfX]b[ 'hc'mci f'dfY'Z'fYX'WYk 'fc'Yg'UbX'mci f'dfY'Z'fYbW'Z'f'U'gd'YW]Z'Wd'fc'YW' 'h]g'YggYbh]U'hUh'mci gh]f]h[ YbYfUH]b[ ]XYUg'Z'ca 'K YY'\_C'BY'UbX'W'a a i b]W]h]b[ 'hYa 'hc'mci f'k cf\_g'lc'd[ fci d'gc'hUh'hY a cghYb[ U[ ]b[ 'd'fc YW'g W]b'VY'gY'YWX'UbX'a UXY"

Mci f'a Uf\_'k ]'VY'a UXY'i d'cZ'hY'Yj U'i Uh]cb'cZ'mci f'Z'a z'mci f'W]h]W'UbU'mg]g'cZ'mci f'Z'a 'UbX'mci f dYfZ'fa UbW'cZ'mci f'XYg][ bUH'X'WYk 'fc'Y"

5'ei U']mW'hcZ'mci f'Z'a 'bYYXg'hc'VY'dfYgYbh'X'hc'hY'W'fU'hc]U'h'Ua 'Vm%&da ': f]XUm'&' '5df]'Mci f'h'hc'f a i gh]g]h' mci f'dfc YW]b'hY'Z]bU'k YY\_'hc'dfcj ]XY'mci 'k ]h'Z]bY'W'h'UbX'W'ci f[ fUX]b[ 'UbX'gci bX'a ]i ]b[ ZYXVUW\_VY'Z'fY'mci f'Z]bU'gi Va ]gg]cb'UbX'hY'di V]Wd'fYgYbh]h]cb'cb'&' '5df]'

Gi Va ]gg]cb'bch'g. D'YUgY'gi Va ]hj ]U'A'ccX'Y'U' ]b\_'hc'mci f'Z'a 'U'cb[ 'k ]h'U'Vf]YZW]h]W'UbU'mg]g'cZ'mci f'dfc YW]f) \$\$'k cfXg'UbX'U'dYYf'UbX'gY'Z'fYj ]Yk 'cZ'mci f'WYk 'fc'Y

Hi fb]hjb'gYHjb[ . H\]g'jg'bchU'Hi fb]hjb'Ugg][ ba Ybh






F Ygci fWg

DfYgWf]VYX`F Ygci fWg`

A cghVci fgY`fYgci fWg`k ]`VY`dcghYX`cb`U`k YY`\_mVUg]g`cb`hY`A ccX`Y`g]hY`hc`gi ddcfhmci f`Vci fgY`  
YI dYf]YbW`"Gh XYbtg`UfY`YI dYWYX`hc`fYj ]Yk`hYgY`fYgci fWg`hcfci [ \`m`

F YWca a YbXYX`F Ygci fWg

D`YUg`gYY`A ccX`Y`Wci fgY`g]hY`!`k YY`\_mi dXU`hYg

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

: 998657? .....

: YYXVUW`\_]g`Ub`YggYbh]U`dUfhcZdfcXi W]cb`UbX`WYU]j Y`dfcW]ggYg`"Hi`hcf`g`k`]"`dfcj`]XY`cb[`c]b[`c`fU`UbX`  
Zcfa U]j Y`ZYXVUW`\_Zc`f`Wci fgY`a U]f]U`g`]b`hY`dfcW]gg`UbX`dfYdUfU]cb`cZmci f`dfc`YW]g`Vi`hcb`m]Zmci

Gi Va ]gg]cb 'cZ5ggYgga YbhiHUg\_g

Hi fb]h]b 'Gi Va ]gg]cb

≠mci 'YbWci bHYf'U'dfcV'Ya 'k \Yb'UH'Ya dh]b[ 'hc'gi Va ]hirci f'Ugg][ ba Ybhi'fci [ \ 'Hi fb]h]bž'd'YUgY  
HY'Yd\cbY'9I HYfbU'Gi ddcfhcb'- ' , ) " ' ' %cf'Ya U] 'h'Ya 'cb'YI HYfbU'HY'gji ddcfh4 i bgk "YXi "Ui "'Gi ddcfh

## 5 WUXYa ]W< cbYgmiUbX`D`U[ ]Uf]ga

D`U[ ]Uf]ga `]g`i`g]b[ `h`Y`k`c`f`X`g`c`f`]X`Y`U`g`c`Z`c`h`Y`f`g`i`U`b`X`d`f`Y`g`Y`b`h]b[ `h`Y`a` `U`g`m`c`i`f`c`k`b`" `#`W`U`b`h`U`\_`Y`a` `U`b`m`  
Z`c`f`a`g`Z`Z`c`a` `X`Y`]V`Y`f`U`h`Y` `W`X`Y`U`h]b[ `h`c` `U`W`W`Y`X`Y`b`h`U` `m`i`W`c`d`m]b[ `Z`c`a` `U`g`c`i`f`W` `k` ]h`c`i`h`U`W`\_`b`c`k` `Y`X[ `Y`a` `Y`b`h`

I`B`G`K` `[`f`c`i`d`g`d`U[ ]Uf]ga `]b`h`c` `h`Y` `Z`c` `c`k` ]b[ `W`U`h`Y`[`c`f`]Y`g.

- i bXYfgHUbX'mci f'f][ \hg'UbX'fYgdcbg]V] ]hYg'Ug'U'gh XYbhUhl BGK
-

## 5 WUXYa ]WbZcfa Uh]cb

: cfYggYbh]U`gh XYbh]bZcfa Uh]cb fY`Uh]b[ `tc.

- fYei Ygh]Zcf`YI H`bg]cb/
- `Uh`gi Va ]gg]cbg`[ i ]XY`]bYg/
- fYj ]Yk `cZa Uf\_g/
- I B GK `< YU`h`UbX`GUZY`mdc`]WYg/
- YI Ua ]bUh]cb`dfcW`Xi fYg/
- gdYW]U`W`bg]XYfUh]cb`]b`h`Y`Yj YbhcZ]`bYgg`cf`a ]gUXj Ybh fY/
- gh XYbhYei ]mUbX`X]gUV`]m/
- UbX`c`h`Yf`YggYbh]U`UWUXYa ]W]bZcfa Uh]cbz`gYY

[\fdg.#k k k "Ufng"i bgk "YXi "Ui #W ffYbhgh XYbh\]UWUXYa \]W\]bZcfa Uh\]cb#dfchW`g`\[ i \]XY`\]bYg#](#)

⇒ U[ Y`7 fYX]h

DcghYf`Zca `h`Y`h`YUhfY`dfcXi W]cb`E`fk`kSY[