

INST2003

F YgYUfVX 'A Yh\cXg]b' bHYfbUh]cbU`Gh X]Yg

HYfa `CbY`#`&\$&%

GWXcc`cZ<i a Ub]hYg`UbX`@Ub[i U[Yg`#`! BGK `5 frg`UbX`GcWU`GWYbWg

7 ci fgY'8YHJ]`g

7 fYX]hDc]bHg '*`

Gi a a UfmicZ\hY'7 ci fgY

H\]g`Wci fgY'k]``Yei]d'mci `k]h`U'gYhcZfYgYUfW`a YhcX'g_]`g" H\Y`Wci fgY'ZcW gYg'cb`hYUW`b[' `ck`'hc
i bXYfU_Y`UbX'UbU'mgY`fYgYUfW`a YhcXg'hfci [\ `YI dYf]YbH]U``YUfb]b[`UbX'hY'i gY'cZW`bH`a dcfUfmUbX
ZJa]]Uf`WJgY`gh`XmYI Ua d`Yg'cZfYgYUfW`hc d]Mg`fY`Yj Ubh`hc]bH`fbU`hcbU`gh`X]Yg" K`Y`k]``[Yhci hcZ`hY
WUggfcca `UbX`dfUW`W`k \Uhk`Y`UfY`YUfb]b[" H\Y`Wci fgY'k]``]bH`cXi W`Vc`h`fU`X]hcbU`a YhcXg`f`Z`f
YI Ua d`Y`Z`X]g`Wci fgY`UbU'mg]g`Z`gi fj Ymg`UbX`]b`H`fj]Yk`g`E`Ug`k`Y``Ug`]b`bcj`U`Hj`Y`a`YhcXg`h`U`h`X`f`U`k`c`b`h`Y
UZZY`W`j`Y`h`f`b`U`g`k`Y``U`g`X][]h`Y`h`bc[fUd`m`f`Z`f`YI Ua d`Y`Z`Ya`VcX]YX`c`V`g`Y`fj`U`h`c`b`Z`g`c`b]Wa`c`j`Ya`Y`b`h`Z`d`l`c`h`c
Y`]W`h`h`c`b`UbX`[Yc!`HJ[[]b[E"i bXYfd]bb]b[`h`g`h`]h`c`b`c`Z`f`Y`g`Y`U`f`W`a`YhcXg`]g`h`Y`f`U`h`c`b`U`Y`Z`c`f`[YbYfU`h`b[
XU`h`h`f`ci [\ `fYgYUfW`a`YhcXg`]b`h`Y`Z`f`g`h`d`U`W`"5``fYgYUfW`i bXYfU_Y`b`k]h`d`Y`c`d`Y`]b`]b`H`f`b`U`h`c`b`U`
`UbXg`W`d`Y`g`k]``]b`j`c`j`Y`fYgYUfW`a`YhcXg`]h`c`i bXYfgh`UbX`h`Y`]b`H`f`U`W`]c`b`g`Z`a`c`V`]h`Y`g`Z`a`c`X]Z`W`h`c`b`g`Z`
U`h`U`W`a`Y`b`h`g`]UbX`Z`Y`]b[g`h`c`Z`UbX`U`V`c`i`h`h`c`g`Y``UbXg`W`d`Y`g" H\]g`Wci fgY'k]``Yei]d'mci `k]h`h`Y`g_]`g`hc
W`c`b`Xi`W`h`fYgYUfW`a`YhcXg`mci fgY`Z`V`i`h`]h`k]``U`gc`XYj`Y`c`d`mci`f`U`k`U`f`Y`b`Y`g`g`c`Z`l`c`k`h`Y`X`U`h`mci`i`g`Y`]g
[YbYfU`h`X`Z`U`g`k`Y``U`g`d`f`c`j`]X]b[`h`Y`W`c`b`H`I`h`U`Z`c`i`b`X`U`h`c`b`]b`fYgYUfW`Y`h`]Mg`UbX`fYgYUfW`Y`f`d`c`g]h`c`b`U`]m`

7 ci fgY'@YUfb]b[`Ci hWca Yg

5ggYgga Ybh

5ggYgga YbhHUg_g

5ggYgga YbhHUg_	K Y][\h	8i Y'8UH	Gh XYbh@YUfb]b[Ci hWta Yg'5ggYggYX
DfYgYbhUj]cb`	%)	K YY_g'' `UbX`(`	%ž&ž'
@]hYfUhi fY'F Yj]Yk`	(\$	\$+#\$(#&\$&%\$(. \$\$'DA) ž*
F YgYUfW`DfcdcgU`	()	&- #\$(#&\$&%\$(. \$\$'DA	%ž&ž' ž(ž) ž*

5ggYgga Ybh8YHU]`g

5ggYgga Ybh%`DfYgYbhUj]cb

GHUfhXUH. `Bch5dd`]WV`Y

@Yb[h. ` `a]bi hYg

8YHU]`g.

hXj]Xi U`` !a]bi h`fYgYUfW`hcd]WdfYgYbhUj]cb"

DYYf`fYj]Yk žk f]hYb`ZYXVUW_ž`UbX`hi hcf`k f]hYb`ZYXVUW_`i g]b[`fi Vf]W

Hi fb]h]b`gYh]b[. `H\]g`]g`bchU`Hi fb]h]b`Ugg][ba Ybh

5ggYgga Ybh&.`@]hYfUhi fY'F Yj]Yk

GHUfhXUH. `Bch5dd`]WV`Y

@Yb[h. `% \$ \$`k cfXg

8YHU]`g.

%) \$ \$!k cfX``]hYfUhi fY'fYj]Yk `cb`h`Y`gY`YW`X`hcd]W

K f]hYb`ZYXVUW_`VUgYX`cb`fi Vf]WZ`f`h`Y`UggYgga Ybh`

Hi fb]h]b`gYh]b[. `H\]g`Ugg][ba Ybh]g`gi Va]hYX`h`fci [\ `Hi fb]h]b`UbX`ghi XYbhg`Xc`bchgYY`Hi fb]h]b`g]a]Uf]mifYdcftrg"

5ggYgga Ybh' . `F YgYUfW`DfcdcgU`

GHUfhXUH. `Bch5dd`]WV`Y

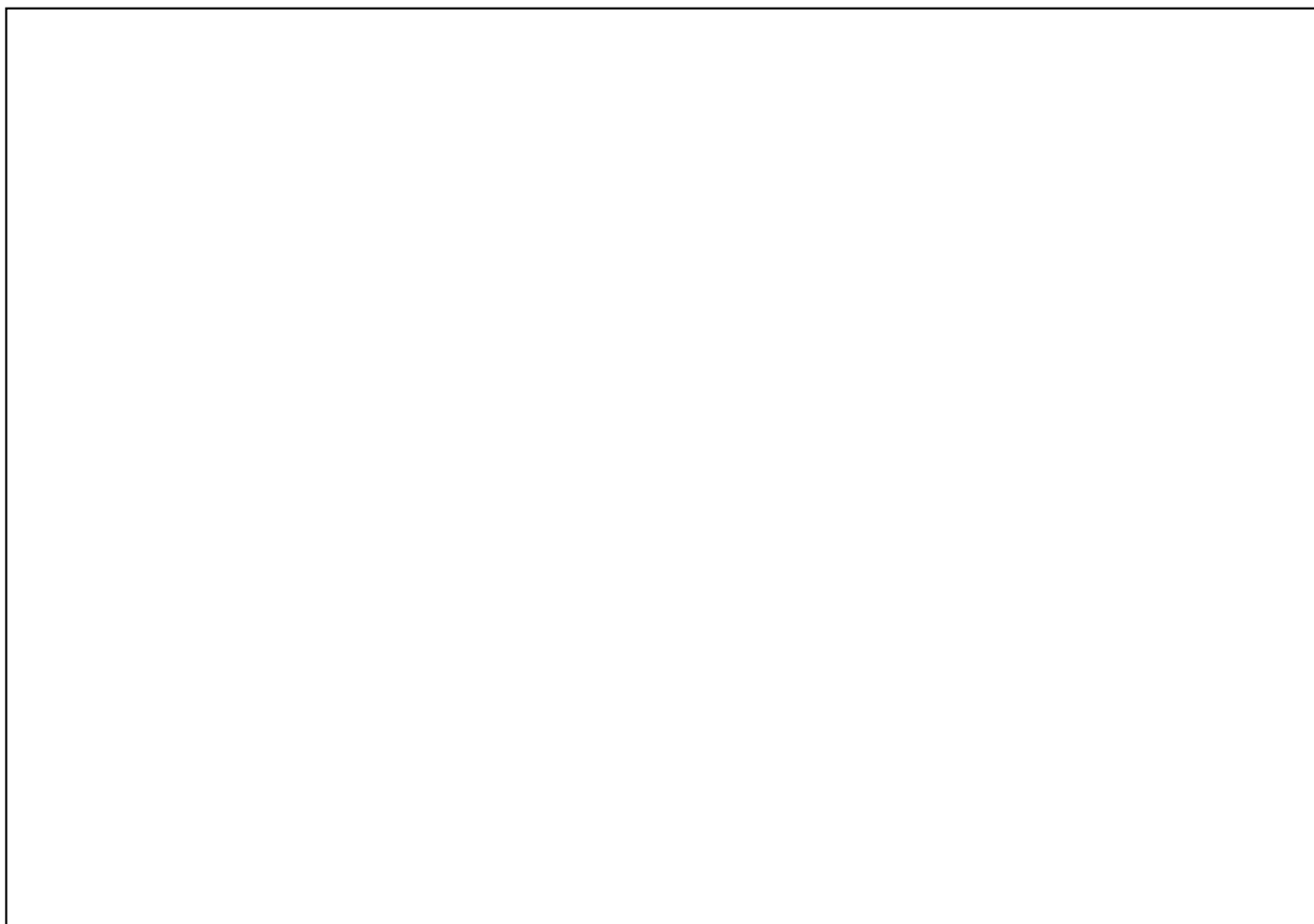
@Yb[h. `&\$ \$\$ \$

8YHJ]g.

&\$\$\$!k cFX'fYgYUfVW'dfcdegU'cb'hY'gY'YWX'hcd]W

K f]hYb'ZYXVUW_VUgYX'cb'fi Vf]WZcf'hY'UggYgga Ybh'

Hi fb]hb'gYhb[. h\]g'Ugg][ba Ybh]g'gi Va]hYX'hfci [\ 'Hi fb]hb'UbX'ghi XYbhg'Xc'bchgYY'Hi fb]hb
g]a]Uf]mfYdcfry"



F Ygci fWg

DfYgWf]VYX`F Ygci fWg`

⊖Zfa Uhcb`Uj U]UV`Y`cb`A ccX`Y`

F YWca a YbXYX`F Ygci fWg

⊖Zfa Uhcb`Uj U]UV`Y`cb`A ccX`Y`

7ci fgY`9j U`i Uhcb`UbX`8Yj Y`cda Ybh

7ci fgYg`UfY`dYf]cX]WU`mifYj]Yk YX`UbX`ghi XYbHg`ZrYXVUW`]gi gYX`hc`]a dfcj Y`hYa`"

: YrYXVUW`]g`[UhYfYX`Zca`ghi XYbHg`i g]b[`a m9| dYf]YbW`"⊖]g`YbWci fU[YX`ghi XYbHg`Wca d`Yh`hY]f
gi fj Ymg`VmUVW`gg]b[`hY`dYfgcbU]gYX`k YV`]b`_j]U`hY`A ccX`Y`Wci fgY`g]h`"

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`]hmc`i`f`Ugg][`ba`Ybhi`h`fci`[`\`Hi`fb]h]b`z`d`Y`Ug`Y`
HY`Yd`l`cb`Y`9I`HY`fb`U`Gi`ddc`fh`cb`-`,`),`"`,`'`,`%`cf`Ya`U]`h`Ya`i`cb`YI`HY`fb`U`HY`hgi`ddc`fh`4`i`bgk`"YXi`"Ui`"Gi`ddc`fh`
l`ci`fg`UfY`,`.\$\$Ua`-`-%\$.\$\$da`i`cb`k`YY`XUmg`UbX`-`.\$\$Ua`-`).\$\$da`i`cb`k`YY`YbXg`fI`*)`XUmg`U`mY`UfI`≠mci`
UfY`i`bUV`Y`hc`gi`Va`]hmc`i`f`Ugg][`ba`Ybhi`Xi`Y`hc`U`Zi`h`k`]h`Hi`fb]h]b`mci`i`a`Um`Udd`m`Zc`f`Ub`YI`HY`bg]cb`z`Vi`hmc`i`
a`i`gh`fY`hU]b`mci`f`h]W`Y`hbi`a`VY`f`Z`ca`9I`HY`fb`U`Gi`ddc`fh`f`U`cb[`k`]h`Ub`mci`h`Y`f`fY`Yj`Ub`h`Xc`W`a`Y`b`hg`L`hc`
]b`Wi`XY`Ug`Yj`]XY`b`W`hc`gi`ddc`fh`mci`f`YI`HY`bg]cb`Udd`]W`h]cb`≠mci`Ya`U]`9I`HY`fb`U`Gi`ddc`fh`mci`k`]`
Ui`hc`a`U`h]W`m`f`Y`W`j`Y`U`h]W`Y`hbi`a`VY`f`z`Vi`h]Z`mci`HY`Yd`l`cb`Y`mci`k`]`b`Y`Y`X`hc`gd`Y`W`Z]W`m`Ug`_`Zc`f`cb`Y`
Hi`fb]h]b`U`gc`d`fcj`]XY`gi`d`XU`h`g`i`cb`h`Y]f`g`mg`h`Ya`i`gh`U`h`g`i`cb`Hk`]h`Y`f`"

;`Yb`Y`f`U`m`z`Ugg`Y`gga`Yb`hi`U`g`_`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]h]b`c`f`U`A`cc`X`Y`
Ugg][`ba`Yb`h`i`h`]b`g`h`U`b`W`g`k` \Y`f`Y`h`l`g`]g`b`ch`id`c`gg]V`Y`z`]h`k`]`V`Y`g`h`U`h`X`i`cb`mci`f`W`ci`fg`Y`g`A`cc`X`Y`g`]h`k`]h`
U`h`Y`fb`U`h]`Y`gi`Va`]gg]cb`X`Y`hU]`g`"

:`cf`]b`Z`c`fa`U`h]cb`cb`l`ck`hc`gi`Va`]h`Ugg][`ba`Yb`hg`i`cb`]b`Y`j`]U`A`cc`X`Y`.\`h`d`g`#`gh`XY`b`h`i`bgk`"YXi`"Ui`#`ck`!
gi`Va`]h`Ugg][`ba`Yb`h`a`cc`X`Y`"

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

D`U[]Uf]ga `]g`i`g]b[`h`Y`k`cfXg`cf`]XYUg`cZc`h`Yfg`UbX`d`fYgYbh]b[`h`Ya`Ug`mci`f`ck`b``#WUb`hU`_`Y`a`Ubm`
Zcfa`gZ`Zca`X`Y`]VYfU`h`V`X`Y`U`h]b[`h`c`U`W`Y`X`Y`b`h`m`i`W`c`d`m]b[`Z`ca`U`g`ci`f`W`k`]h`ci`h`U`W`_`b`c`k`Y`X[`Ya`Y`b`h`

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

7`c`d`m]b[`.`i`g]b[`h`Y`g`Ua`Y`c`f`j`Y`f`m`g]a`]U`f`k`c`f`X`g`h`c`h`Y`c`f][`]b`U`h`Y`h`c`f`]X`Y`U`k`]h`ci`h`U`W`_`b`c`k`Y`X[]b[`h`Y`

- i bXYfghUbx'mci f'f][\hg'UbX'fYgdcbg]V]h]Yg'Ug'U'gh XYbhUhl BGK
- VY'Uk UfY'cZd'U[]Uf]ga ž'Wcdmf][\hž' BGK 'Gh XYbh7cXY'cZ7cbXi W'Ubx'5Ww'dhUV'Y'I gY'cZ I BGK '⇒H'F Ygci fW'g'Dc`]Wm
- VY'Uk UfY'cZh'Y'ghUbxUfXg'cZVY\Uj]ci f'YI dYW'X'cZYj Yfmcby`]b'h'Y'I BGK 'Wca a i b]m
- `cWJh'gYfj]W'g'UbX']bZcfa Uh'cb'UVci hl BGK 'UbX'I BGK '@]VfUfm

Gca Y'cZh'YgY'UfYUg'k]`VY'ZJa]]Uf'hc'mci ž'ch'Yfg'k]`VY'byk " "; U]b]b['U'gc`X'i bXYfghUbx]b['cZU`h'Y fY'UH'X'UgdYW'g'cZ9@G9'k]`Y'd'mci 'a U_Y'h'Y'a cghcZmci f'gh X]Yg'Uhl BGK ""

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

5 WUXYa]WbZcfa Uh]cb

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

- fYei Yghg`Zcf`YI H`bg]cb/
- `UhY`gi Va]gg]cbg`[i]XY`]bYg/
- fYj]Yk `cZa Uf_g/
- I BGK `<YU`h`UbX`GUZYmidc`]WYg/
- YI Ua]bUh]cb`dfcW`Xi fYg/
- gdYW]U`W`bg]XYfUh]cb`]b`hY`Yj YbhcZ]`bYgg`cf`a]gUXj Ybh fY/
- gh XYbhYei]m]UbX`X]gUV`]m/
- UbX`c`hYf`YggYbh]U`UWUXYa]W]bZcfa Uh]cbz`gYY

[\ftdg.#k k k "Uftg"i bgk "YXi "Ui #W ffYbh\]gh XYbh\]UWUXYa \]W\]bZcfa Uh\]cb#dfch`W`g`\[i \]XY`\]bYg#](#)

⇒ U[Y`7 fYX]h

⇒ U[Y`dfcj]YX`VmDUi ``A i bfc

7F ⇒ CG

7F ⇒ CG`Dfcj]Yf`7cXY.`\$\$\$- ;

5W_bck `YX[Ya YbhcZ7ci bhfm

K Y`UW_bck `YX[Y`hY`6YXY[U`dYcd`Y`k `c`UfY`hY`fUX]h]cbU`W`gh`X]Ubg`cZ`hY`UbXg`cb`k `]W`I BGK
? Ybg]b[h`cb`W]a`di`g`]g`c`W]hYX"