



# COMD0506

GdYWjU`Dfc[ fUa

HYfa `Hk c`##`&\$%-

7 ci fgY`Cj Yfj ]Yk

`GHUZZ7cbhUWhi8YHJ]`g`

`7cbj Ybcfg`

B Ua Y	9a U]`	5j U]`UV]`]m	@cW]h]cb	D\cbY
? f]g\bU`G\FYghU	_f]g\bU"g\FYghU4 i bgk "YXi "Ui	6mYa U]` Uddc]bha Ybh	A cf[ Yb 6fck bž; %+	- ' , ) %( %

GWXcc``7cbhUWhi`bZcfa Uh]cb

GWXcc``cZGcW]U`GWYbWg

Fcca`%) -

A cfj Yb`6fck b`7 &\$

Ya U]`.gcgg4 i bgk "YXi "Ui

d\cbY. \$&`- ' , )`% \$+

7 ci fgY'8YHJ]`g

7 fYX]hDc]bhr '\*`

Gi a a UfmicZ\hY'7 ci fgY

H\Y'GdYWU'Dfc[ fUa 'U`ck g'gh XYbhrz]b`X]gW gg]cb`k ]h`h\Y'7 ci fgY'7 cbj Ybcfz`hc`ghf W`h fY'U'dfc[ fUa k \]M\`])b\_g`h\Y'gh XmicZUb`UgdYWhcZXYj Y`cda Ybhk ]h`h\Y'dfUW]W`cZXYj Y`cda Ybh`H\Y'GdYWU'Dfc[ fUa `a UmhU\_Y`U`j Uf]YhmcZcfa g`-]bW` X]b[ `d`UW`a Ybhk ]h`h`Ub`U[ YbW`hcf`cf[ Ub]nU]cb`k cf\_]b[ `]b`h\Y ZY`X`cZXYj Y`cda Ybh`U`ghf W`h fYX`fYgYUfW`d`fc`YW`z`UbX`#`f`dfYdUfU]cb`cZU`di V`]g\UV`Y`Uf]WY`dfYdUfYX Zc`f`gi Va ]gg]cb`hc`U`dYYf]fYj ]Yk`Uf]WY`UbX`Z`W`gYX`cb`Ub`UgdYWhcZXYj Y`cda Ybh`

H\Y'GdYWU'Dfc[ fUa `k ]`gYY`\_`hc`dfca`ch`W`h]W`h`fYZYW]cbz`W`bW`dh`U`XYj Y`cda Ybh`UbU`mg]g`UbX k f]h]b[ `Vi`hW`b`VY`ghf W`h fYX`]b`U`j Uf]YhmcZ]ZYfYbhk Umg`z`U`h]a`Yg`i`bXYf`h\Y`c`]bh[ i ]XUbW`cZUb`U[ YbW`h VUgYX`cf`k`cf`d`UW`W`!`gi`dYfj ]gcfz`U`cb[ `k ]h`U`I`BGK`UW`XYa ]Wgi`dYfj ]gcf`H\Y`gh`XYbhrz[ cU`]g`hc`a`U`\_`Y`U`i`gYz`\_`W`bhf]Vi`h]cb`hc`h\Y`XYj Y`cda Ybh[ cU`g`z`dc`]WYg`cf`dfc[ fUa`g`cZ`h`Y`cf[ Ub]gU]cbz`UbX`hc`]b`\_`h`]g`YI`dYfj]YbW`hc`h\Y`VcXmicZUW`XYa ]W`\_bck`YX[ Y`cb`XYj Y`cda Ybh`

9UW`d`fc`Y`Wh]g`]bX]j ]Xi`U`mXYg][ bYXz`UbX`h\Y`dfYW]gY`Zcfa`Uhk`]`j`Ufm`gca`Y`k`]`VY`fY`Uhj`Y`mXYhUW`YX`fYgYUfW`YI`YfW]gYg`k`\]Y`ch\Yfg`a`Um]bj`c`j`Y`YI`d`cf]b[ z]a`d`Ya`Ybh]b[ `UbX`UbU`m]b[ `W`Ub[ Y`"9UW`k`]`VY`VUgYX`Ufci`bX`Ub`U[ fYX`gYh`cZcV`YW]j`Yg`UbX`UW]j`]hYg`U`cb[ `k ]h`h`c`hc`h`fY`gdYW]Z]YX`Ugg][ ba`Ybhg`k`\]M`k`]`VY`gi`Va`]hYX`UhdFY`XYhfa`]bYX`h]a`Yg`Zc`f`UggYgga`Ybh`

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

BchUj U]UV`Y

HYUW`]b[ `GhfUH[ ]Yg`

D`YUgY`fYZf`hc`h\Y`]bZcfa`U]cb`]b`A`ccX`Y




F Ygci fWg

DfYgWf]VYX`F Ygci fWg`

F Ygci fWg`UfY`XYHfa ]bYX`VmH`Y`]bX]j ]Xi U`gi dYfj ]gcf`UbX`h`Y`gh`XYbH`XYdYbX]b[ `cb`h`Y`bUhi`fY`cZ`h`Y`dfc`Y`W`i`

F YWca a YbXYX`F Ygci fWg

BchUj U]UV`Y

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



## 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" #WUbb'U\_Y'a Ubm Zcfa gZ Zca 'XY]VYfUHY'WXU]b[ 'hc'UWV]XYbhU`mWcdm]b[ Zca 'U'gci fW'k ]h'ci hUW\_bck `YX[ Ya Ybh'

I BGK '[ fci dg'd`U[ ]Uf]ga ]bhc'hY'Z`ck ]b[ 'WUHY[ 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[ YgZ'UfhUbX'XYg][ b'dfc'YWgZ'Ug'k Y`'Ug dfYgYbhU]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'Zk 'k cfXg'UbX'd\UgYg'k \]Y'a cghmifYU]b]b[ 'hY'cf][ ]bU'gf'i W' fY'UbX#cf'dfc[ fYgg]cb'cZ]XYUg'cZhY'cf][ ]bU'z'UbX' ]bZcfa U]cb'k ]h'ci hUW\_bck `YX[ Ya Ybh' 'H\g'U'gc'Udd'Yg' ]b'dfYgYbhU]cbg'k \YfY'gca YcbY'dUfUd\fUgYg'UbchYf'g']XYUg'cf'k cfXg'k ]h'ci hWYX]h'UbX'hc d]YW]b[ 'hc[ YhYf'ei chYg'UbX'dUfUd\fUgYg']bhc'U'bYk 'k \c'Yz'k ]h'ci hUddfcdf]UHY'fYZfYbW]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 ]bW' XYg'dfcj ]X]b[ 'mci f'k cf\_'hc'UbchYf'gh' XYbhVYZc'fY'hY'Xi Y'XUHY'z'cf'Zc'f'hY'di fdcgY'cZ'hYa d'U[ ]Uf]g]b[ 'UhUbm]h'a Yz'dUm]b[ 'UbchYf'dYfgcb'hc'dYfZc'fa 'Ub'UWUXYa ]W]Ug\_z'ghU' ]b[ 'cf'UW'ei ]f]b[ UbchYf'dYfgcb'g'UWUXYa ]Wk cf\_'UbX'Wcdm]b[ ]h'z'cZY]b[ 'hc'Wca d'Yh'UbchYf'dYfgcb'g'k cf\_'cf'gYY\_]b[ dUma YbhZc'Wca d'Yh]b[ 'UWUXYa ]Wk cf\_"

#Uddfcdf]UHY'W]h]cb.'7 ]h]b[ 'gci fW'g'k \]W\Uj Y'bchVYYb'fYUXz'k ]h'ci hUW\_bck `YX[ ]b[ 'hY'"gYWcbXUfm' gci fW'Zca 'k \]W'\_bck `YX[ Y'cZ'hYa '\Ug'VYYb'cVh]bYX"

8i d']W]h]cb'f'fY'Zd'U[ ]Uf]ga "L'gi Va ]h]b[ 'mci f'ck b'k cf\_z']b'k \c'Y'cf']b'dUf'z'k \YfY']h\Ug'dfYj ]ci g'm VYYb'dfYdUfYX'cf'gi Va ]hYX'Zc'f'UbchYf'UggYgga Ybhcf'Wci fgY'Uhi BGK 'cf'UbchYf'i b]j Yfg]m'

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

- DUfUd\fUg]b[ žgi a a Uf]g]b[ žYggUmk f]h]b[ 'UbX'h'a Y'a UbU[ Ya Ybh
- 5ddfcdf]UHY'dY'c' ]bU'X'f'f'Vi h]cb'Zc'd'U'Ub'hc'Z'a U'g'U'd'Y'g' ]bW' X]b[ f'YI h'z'U'f'c'U'g'z'Zc'fa ]b[ 'U'W'c'Z'X\_" WcbVW'drg"



- i bXYfghUbx'mci f'f][ \hg'UbX'fYgdcbg]V] ]hYg'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.##ji V'YW'i \]XYg" \]VfUfm'i bgk "YXi "Ui #' \]gY#JVci h' \]gY](#)

## 5 WUXYa ]WbZcfa Uhcb`

: cfYggYbhU`ghi XYbh]bZcfa Uhcb`fY`Uh]b[ `hc.

- fYei Yghg`ZcfYI hYbg]cb/
- `UhY`gi Va ]gg]cbg`[ i ]XY`]bYg/
- fYj ]Yk `cZa Uf\_g/
- I B GK `<YU`h`UbX`GUZY`midc`]WYg/
- YI Ua ]bUh]cb`dfcVWXi fYg/
- gdYWU`Vc]bg]XYfUh]cb`]b`hY`Yj Ybhcz]`bYgg`cf`a ]gUXj Ybh fY/
- ghi XYbhYei ]m]UbX`X]gUV`]m/
- UbX`chYfYggYbh]U`UWUXYa ]W]bZcfa Uh]cbz`gYY

[\hmg.#k k k "Ufmg"i bgk "YXi "Ui #W ffYbhghi XYbh\]bZcfa Uhcb`dfc\]Vc`g!\[ i \]XY`\]bYg#](#)

⇒ U[ Y`7 fYX]h

GmbYf[ ]Yg`]b`Gci bX`&\$%\*`

7F ⇒ CG

7F ⇒ CG`Dfcj ]XYf`7 cXY. '\$\$- , ;