



# COMD5000

B; C gž 7 ]j ]`GcWYhmiUbX`8Yj Y`cda Ybh

HYfa `C bY`#`&\$%-



7 ci fgY`Cj Yfj ]Yk

`GHJZ`7cbhJW`i8YHJ`g`

`7cbj Ybcfg`

B Ua Y	9a U]	5j U]UV]]m	@cW]hcb	D\cbY
5b\cbmNk ]	U"nk ]4 i bgk "YXi "Ui	D`YUgY`Ya U]`hc UffUb[ Y`U`hja Y`hc X]gW gg/d`UW W`i fgY`W`XY`UbX ]ggi Y`]b`gi V`Y`W`h \YUX]b[ "Hi YgXUm cf`H\i fgXUm %\$!%&\\$\$	F cca `&) ž ; fci bX: `ccfž A cfj Yb`6fck b 6`X[	\$( & `* - * (- \$

GWcc`7cbhJW`i`bZcfa Uh]cb

GWcc`cZGcW]U`GWYbWg

F cca `%) -

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

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

7ci fgY'8YHJ>`g

7fYX]hDc]bqg`\*`

Gi a a UfmicZ\hY'7ci fgY

ǎ'h]g'Vci fgY'mci`k`j`w]h]w]mYI Ua ]bY'hY'Vca d'YI`fc'Y'cZw]j`j`gcw]YmUbx`B; Cg`]b`XYj`Y`cda`Ybh`  
Uw]j`]h]Yg`UbX`dfcW`ggYgzk`]h`Ub`Ya`d`Ug]g`cb`]bhYfbU]cbU`XYj`Y`cda`Ybh`ǎ'h]g'Vci fgY'mci`k`j`w]j`Yf`  
hYcfYh]w]`UbX`dfUw]w]`]bg][`hg`VcbWfb]b[`hY`fc'Y'cZw]j`j`gcw]YmUbx`B; Cg`UbX`k`j`YUfb`UVci`h`  
X]ZYfYbhmdYg`cZcf[`Ub]gU]h]cbg`f]g]`VX`Ug`\\i`a`Ub]h]f]Ub`UbX`XYj`Y`cda`Ybh`Z]h]!VUgYXz`Wla`dU][`b]b[`j`g`  
gYfj`]w`XY`j`Yfm`UbX`hY]f`ghU]h[`]Ygž`Uw]j`]h]Yg`UbX`UddfcUw]Yg`Mci`k`j`YI`d`cf`hY`]bhYfZ]w]g`cZ`hYgY`  
cf[`Ub]gU]h]cbg`UbX`]bg]h]h]h]cbg`k`]h`W`h`fYž[`YbXYfž`\\i`a`Ub`f][`hgž`ǎX][`Ybci`g`f][`hgž`UbX`Xca`]bUbh`  
]XYc`c[`]Yg`Mci`k`j`U`gc`YI`d`cf`hY`]b\_g`VYh`YYb`Wj`j`gcw]Ymž`B; Cg`UbX`chYf`XYj`Y`cda`Ybh]Uw]c`fgž`Ug`  
k`Y`Ug`hY]f`fY`U]h]cbg`d`h`hY`gi`ghU]bUV`Y`XYj`Y`cda`Ybh[`cU`g`fG8; gē`UbX`\_Ym[`cVU`WU`Yb[`Yg`Mci`  
k`j`VY`fYei`]fYX`h`Yb[`U[`Y`Uw]j`Y`mcb`]bYž`]b`WUggž`]bXYdYbXYbh]mUbx`]b`U[`fci`d`Mci`k`j`Vca`Y`Zca`Ubm`  
cZU`fUb[`Y`cZ]gW]d`]bUfmVUw[`fci`bXg`UbX`k`j`k`Ubh`h`YUfb`\\ck`h`a`U`Y`U`X]ZYfYbW]`]b`gcw]U`↑`gh]w]ž`  
XYj`Y`cda`Ybh]UbX`\\i`a`Ub]h]f]Ub`gYh]b[`g`

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

%`5bU`mgY`hY`gcw]U`žYw]bca`]wUbx`chYf`Vcbh]i`h`U`W]Ub[`Yg`h]Uh`\\Uj`Y`YX`h`hY`Ya`Yf[`YbW]`UbX`  
[`fck`h`cZ`Uf[`Y`bi`a`VYfg`cZw]j`j`gcw]Ymž`bch]Zc]f]dfc]h]UbX`gcw]U`di`f]dcgY`cf[`Ub]gU]h]cbg`/  
&"

; fci d'k cf\_]bWi X]b[ [ fci d'dfYgYbH]cb'UbX' [ fci d'fYdcfh!'U'\_YmY'Ya YbhcZ]g'Wci fgY'k ]''bWi XY  
[ fci d'k cf\_'WcbWfb]b[ 'Yb[ U[ Ya Ybhk ]h'Ub'B; C'k cf\_]b[ ]'b'fYU'hja Y'hc'Wcbf]Vi h'hc' ]bhYfbU]cbU'  
XYj Y'cda Ybh'H\Y'[ fci d'k ]''fYgYUfW'Ub' ]ggi Y'hc[ YhYfz'dfYgYbh'hc'h\Y'WUgg'UbX'B; C'z'UbX'gi Va ]hU  
fYdcfhfYZYW]b[ 'h\Y]f' ]bg][ \hg'UbX'[ i ]XUbW''; fci d'k cf\_]g\_'g'UfY YggYbh]U'hc'k cf\_]b[ ]'b'XYj Y'cda Ybh  
gYh]b[ g''

DUdYf'W]h]ei Y'ZUW]h]U]g'W]h]W'UbU'mg]g'cZU'di V']g\YX'dUdYf''H\]g'dfcj ]XYg' ]bg][ \hg']bhc'h\Y'dYYf]fYj ]Yk  
dfcW'gg'UbX'\ck' 'ci fbU'Uf]h]WYg':[ Yhdi V']g\YX'Ug'k Y''Ug'Vi ]X]b[ 'Wca dYH'bw' ]b'YI Ua ]b]b[ 'UbX  
W]h]ei ]b[ 'X]ZYfYbh]m]dYg'cZ'ci fbU'Uf]h]WYg''; cW'g]b[ 'cb'fYW'bh]m]di V']g\YX'dUdYfg'U'gc'\Y'dg'gh' XYbhg  
gYY'\ck'h\Y'Z]Y'X' ]g'XYj Y'cd]b[ 'UbX'k \Uh]ggi Yg'UfY'VY]b[ 'X]gW'ggYX''Gh'XYbhg'dfYdUfY'U'W]h]W'  
gi a a Ufmi'hUhVf]b[ g']b'c'h\Yf''h]fU]h'fY'UbX'dfcj ]XYg' ]bg][ \hg']bhc'k \Yh\Yf'c'h\Yfg' ]b'h\Y'WUgg'g\ci 'X  
df]c]h]gY'h\Y'dUdYf' ]b'h\Y]f'Z' f'h\Yf'fYUX]b[ 'UbX'fYgYUfW'U'W]h]h]Yg''

⊕XYdYbXYbh'YUfb]b[ 'YI YfW]gYg'!'gca Y'U'W]h]h]Yg'k ]''VY'i d'cUXYX'hc'h\Y'A ccX'Y'g]h'UbX'gh' XYbhg'k ]''VY  
YbWci fU[ YX'hc'j ]Yk ž'fYgdc]bX'UbX'W]h]ei Y'h\YgY' ]b'h\Y]f'ck b'hja Yž'k ]h'U'j ]Yk'hc'g\Uf]b[ 'h\Y]f' ]bg][ \hg'  
cb' ]bY''H\Y'Wci fgY'XfUk'g'cb'bi a Yfci g'Z'a g'UbX'j ]XYcg'UbX'gh' XYbhg'U'gc'[ U]b' ]bg][ \hg']bhc'\ck'hc  
W]h]W''mj ]Yk'h\YgY'a U'h]f]U'g''

## 5ggYgga Ybh

GYa ]bUfg'UFY'WēFY'hc'hY'Wēi fgY'! YgdYWU'mUg'hYFY'jg'U'gc'U" \$i' Wēa dcbYbhXYfj YX'Zca '[ fci d'k cf\_"  
H\]g'jg'U'fYU'! ]ZY'cddcfh b]mhc'Yb[ U[ Y'k ]hZ'Wēbgfhi Wj] Y'mgi ddcfhiUbX'W]hei Y'U'XYj Y'cd]b[  
XYj Y'cda Ybhcf]YbhX'B; C"D'YUgY'U\_Y'h\]g'gYf]ci g'm'H\Y'UggYgga Ybhg'k ]'ZYX'j]bhc'Z f\Yf  
XYj Y'cda YbhUbX'XYVUH'k ]h]b'hY'B; C' ]hg'Z'

## 5ggYgga YbhiHUg\_g'


5XX]h]cbU`XYHJ]g.

H\]g`YggUmig\ci`X`ZcW`g`cb`tk`c`]ggi`Yg`%&]bg][`hg`Uf]g]b[`Zca`hY`fYU!`]Z`fYU!`h]a`Y`ZcW`g`cb`Ub`B;`C`g`YY`\_]b[`hc`UXXfYgg`\_Ym]bhYfbU]cbU`XYj`Y`cda`Ybh]ggi`Yg`UbX`&E`dfcj`]XY`Ub`]b]XYdH`YI`Ua`]bU]cb`UbX`W]h]ei`Y`cZ`]bbcj`Uhj`Y`ghfU]h[`]Yg`h`UhW]b`VY`f`f`UfY`E`i`gYX`VmW]j`]gcW]Yhmicf[`Ub]gU]cbgZ]bhYfbU]cbU`B;`C`g`cf`c`W]`B;`C`g`UbX`W`a`a`i`b]m]VUgYX`cf[`Ub]gU]cbgZ]hc`dfca`chY`f`UbgZ`fa`Uhj`Y`XYj`Y`cda`Ybh]b`U`gdYW]Z]W]b`hYI`h`UbX`gY]h]b[`"5XX]h]cbU`XYHJ]g`hc`VY`X]gW`ggYX`]b`WUgg"

Hi`fb]h]b`gY]h]b[`.H\]g`Ugg][`ba`Ybh]g`gi`Va`]hYX`h`fci`[`\`Hi`fb]h]b`UbX`gh`XYbhg`W]b`gY`Y`Hi`fb]h]b`g]a`]Uf]m`fYdcf]g"

5ggYgga`Ybh`.];`fci`d`fYdcf]h/`dfYgYb]h]cb

G]Uf]hXU]hY`.Bch5dd`]W]V`Y

8YHJ]g.`5`fYdcf]Vm[`fci`dg`cZ`(!`\*`gh`XYbhg`ZcW`g]b[`cb`U`gdYW]Z]W]cd]W]fY`U]h]b[`hc`fYU!`h]a`Y`W]U`Y`b[`Yg`Z]W]b[`U`gdYW]Z]YX`B;`C`"B`c`a`cfY`h`Ub`(\$`\$`\$`k`cfXg`fk`f]hYb`Vm`k`c`Y`[`fci`d`E]bW]X]b[`U`h`c`d`U[`Y`9I`Y`W`h]j`Y`Gi`a`a`Uf]m`K`f]hYb`Z]YXVUW`k`]h]b`%`\$`k`cf\_]b[`XUmg`"H\]g`]g`hY`Z]bU`UggYgga`YbhZcf`hY`W`ci`fgY"

5XX]h]cbU`XYHJ]g.

;`fci`dg`]\_Y`m]h`VY`cZ`Zci`f`gh`XYbhg`cb`m]Hk`c`W`a`dcbYbhg`!`U`[`fci`d`fYdcf]h]UbX`U`[`fci`d`dfYgYb]h]cb`Ug`Z]m]ci`f`[`fci`d`k`YfY`W`bgi`h]Ub]h]dfYgYb]h]b[`hc`hY`B;`C`cb`k`\]W]k`Y`UfY`ZcW`g]b[`]h]g`k`]`h]U`\_Y`d`UW`Xi`f]b[`]ci`f`]bhYbg]j`Y`cb`Gi`bXUm5df]`%(`"6`ch`hY`fYW`a`a`YbXU]h]cbg`UbX`hY`a`cXY`cZdfYgYb]h]cb`UbX`fYdcf]h]k`f]h]b[`]g\ci`X`UW`bck`YX[`Y`UbX`h]U`\_Y`bchY`cZ`hY`W`b]h]h!`cddcf]h`b]h]Yg`UbX`W`b]f]U]bhg`!`hc`dfca`chY`f`UbgZ`fa`Uhj`Y`XYj`Y`cda`Ybh`K`f]hYb`fYdcf]h]cb`VY`U`ZcZ`hY`[`fci`d`a`i`ghVY`gi`Va`]hYX`Vm]hY`Xi`Y`XU]hY`!`U`a`Ya`VYfg`cZ`hY`[`fci`d`a`i`gh]d`cUX`hc`Hi`fb]h]b`hY`g]Ua`Y`fYdcf]h`"

5`dY`Y`f`UggYgga`Ybh]cZdUf]h]W]dU]h]cb`]b`hY`[`fci`d`UW]j`]h]Yg`k`]`U`ck`a`cXYfU]h]cb`cZ`hY`5ggYgga`Ybh`a`Uf`h]UhYUW`dYfgcb`k`]`fYW]j`Y`"

Gi`Va`]gg]cb`bchYg.DfYgYb]h]cb`k`]`VY`Xi`f]b[`]bhYbg]j`Y`cb`%(`5df]";`fci`d`fYdcf]h]W]b`hc`VY`dfYgYb]h]X`VmXU]hY`UbX`h]a`Y`gh]di`U]hYX"

Hi`fb]h]b`gY]h]b[`.H\]g`Ugg][`ba`Ybh]g`gi`Va`]hYX`h`fci`[`\`Hi`fb]h]b`UbX`gh`XYbhg`W]b`gY`Y`Hi`fb]h]b`g]a`]Uf]m`fYdcf]g"







		7 UgY`gh XmiX]gW gg]cb`VUgYX`Ufci bX`df]cf`Z]a gWfYYb]b[ `UbX`WUfYZ ``bchY!hU_]b[ "
	8YhU]g`cb`A ccXY	
	hYbg]j Y	hYbg]j Y`WUgg`k ]``VY`Y`X`cb`Gi bXUm%( `5df]`! Zfca ` - " \$Ua `hc `( " \$da `]b`A cfj Yb`6fck b`; *"  ; fci dg`k ]``dfYgYbhihY]f[ fci d`k cf`_fYgYUfW`UbX UXj ]W`cb`h`g]c`WUg]cb`fH67E"5`g`UfYX`i bW`k ]` U`gc`VY`Y`X`!`YUW`dYfgcb`hc`Vf]b[ `U`g`UfY`d`UW` : i fhYf`XYhU]g`]b`WUgg"
K YY_`-`.% `5df]`!`&% 5df]`	GYa ]bUf	; ccX`dfUW`W`Yi Ua d`Yg`]b`B; Cg`UbX 8Yj Y`cda Ybh` .
	5ggYgga Ybh	Gi Va ]hi[ fci d`fYdcfhUbX`Yb[ U[ Y`]b`Wcbgi`hU]j Y X]gW gg]cb`k ]h`5A : `]b`WUgg"; fci dg`a UmidfYgYbh cf`Z]bX`U`a cfY`]bcbj U]j Y`a YUbg`cZg`Uf]b[ `hY]f ]bg][ `hg`k ]h`hY : ci bXU]cb`"7 f]hYf]U`UbX`[ i ]XUbW cb`A ccX`Y`UbX`]b`WUgg"
K YY_`%%`&- `5df]`!`% A Um	5ggYgga Ybh	Gi Va ]hi]bU`fYZYW]j Y`YggUm!`Xi Y`cb`&- `5df]`Vm ) da

F Ygci fWg

DfYgWf]VYX`F Ygci fWg`

GYY`A ccX`Y`UbX`@Y[ Ubtc``]b\_g

F YWca a YbXYX`F Ygci fWg

GYY`A ccX`Y`UbX`@Y[ Ubtc``]b\_g

C b`]bY`6`c[ g#DcXWUghg.

A cghV`c[ g`UfY`]bZcfa U`cd]b]cb`YX]rcf]U`gzk f]H`b`ei ]W`mUbX`cZ`Yb`k ]H`ci hgi VghUbh]U`gi ddcf]b[  
Yj ]XYbVW``H`YmWU]b`VY`Ub`YI W``Ybhgci fW`cZj Yfm]a Y`mUbU`mg]g`UbX`WU]b`dc]bhmc i `]b`h`Y`X]fYW]cb`cZ  
h`Y`U`h`gh]bZcfa U]cb`cb`dc`]W]ggi Yg` `h]g`]a dcftU]bhic`bYj Yf`fYUX`U`V`c[ `i bW]h]WU`m`=YbWc`i fU[ Y`mci `hc  
ffmhc`Z`ck`U`h`YUghcbY`cb`U`Z`YeI YbhVUg]g`tc`[ ]j Y`mci `gca Y`fYU`! ]Z`i bXYfghU]bX]b[ `cZ`h`Y`U`h`gh  
XYVU]h`g`]b`XYj Y`cda Ybh` `=Uj Y`U`gc`]bW] XYX`cbY`dcXWU]ghU]bX`cbY`k YVg]h`k ]h`g`c`f`h`U`\_g`Z`c`f`h`cgY  
cZmci `k`c`k`Ubhgca Yh`]b[ `hc`]gh`b`hc`Q`fYU]k`Y`b`cb`di`V`]W]fU]bgdcftQ`cf`k`U]h`X`]bghYUX`cZ`gh`fYUX]b[ .

- 8Yj Y`cda YbhDc`]W]m7YbhfY. [\hdg.#XYj.dc\]W\]h\]WUk`Zcfx"Ubi`"YXi`"Ui`#](#)

- 9i fcdYUb'>ci fbU`cZ8Yj Y`cda YbhF YgYUfWx
- ; YbXYf'UbX'8Yj Y`cda Ybh
- ; `cVU` ; cj YfbUbVW
- ɁHfYfbUfcbU`C f[ Ub]nUfcb
- >ci fbU`cZ8Yj Y`cda YbhGh X]Yg
- >ci fbU`cZ<i a Ub'8Yj Y`cda Ybh
- >ci fbU`cZɁHfYfbUfcbU`8Yj Y`cda Ybh
- >ci fbU`cZDYUgUbhGh X]Yg
- >ci fbU`cZDYUWVi ]X]b[ 'UbX'8Yj Y`cda Ybh
- C I ZcfX'8Yj Y`cda YbhGh X]Yg
- Dfc[ fYgg'i'b'8Yj Y`cda YbhGh X]Yg
- H\]fX'K cfX'E i UffYfm
- K cfX'8Yj Y`cda Ybh

Mci 'k ]''U'gc VYbYZhZca VYVca ]b[ 'ZJa ]]Uf'k ]h ; cc[ 'YGWc'Uf'f'hd.#gWc'Uf"[ cc[ 'Y"Vca E'Ug'U' \_Ym  
gYUfW' Yb[ ]bY 'Zcf'UWXYa ]Wdi V']WU]cbg'UbX'fYdcfng" Mci 'WUb'gYhi d' h'Y' d'fYZ'fYbWg'hc'' ]b'\_hc' h'Y  
I BGK '@]VfUfmYj Yb'k \Yb'mci 'UfY'bchcb'WJa di g"

; c'hc'; cc[ 'Y'GWc'Uf2'gYH]b[ g2'' ]VfUfm'' ]b\_gz'UbX'YbHf'f' l b]j Yfg]mcZBYk 'Gci h'k 'U'Yg' ]b' h'Y'Vcl 'Zcf  
"@]VfUfm''. Mci 'WUb'g][ b'i d'Zcf'HUV'Y'cZ7'cbH'bhg'fHC 7E5'Yfng'Zca 'h'Y' \ca YdU[ Yg'cZfY'Yj Ubh'ci fbU'gz  
hc'fYW'j Y'Ub'Ya U]'k \YbYj Yf'bYk 'UfH'WYg'UfY'di V']g\YX' ]b'h'U'h'ci fbU''>ci fbU'k YVg]H'g'k ]''cZ'Y'b'WUffm  
]bZ'fa U]cb'cb'h'Y'a cghj ]Yk YX'UbX'a cghW'YX'UfH'WYg/h'Y'gY'UfY'' ]\_Y'mhc'VY' ]bH'fYgh]b[ 'UbX'cZ'Y'b  
]bZi Ybh]U'V'cbf]Vi h'cbg"; cc[ 'Y'GWc'Uf'k ]''U'gc'dc]bhrci 'hc'UfH'WYg'h'U'h'Uj Y'W]h'X'U'dUfH'W'Uf'UfH'WY  
UbX'\YbW'k ]''VY'fY'U'h'X'hc'h'Y'hc]W

DfcZ'Nk ]\Ug'U'rk ]Hf'UWVci bh'h'U'h]g'i gYX'Zcf'XfUk ]b[ 'U'h'Y'b]cb'U'gc'hc'fY'Yj UbhXYj Y'cda YbhXYVU'h'gz  
dcXWU]ghz'Vcc\_'fYj ]Yk'g'UbX'di V']WU]cbg" =Zrci 'UfY'cb'rk ]Hf'fz  
Z'ck '\hdg.#k ]Hf'Vca #<95F8Uh BGK 'U'gc'\Ug'U'g' , 8Yj Gh Xg' ; 'cVU'8Yj , 7CA 8) \$\$\$  
, 7CA 8) \$\$\$% , 7CA 8) \$\$\$&"H\YfY'UfY'U'gc'bi a Yfci g'j U'i UV'Y'rk ]Hf'f' ]gh'cb'4 <95F8Uh BGK 'fY'U'h'X  
hc'G]YffU'@YcbYz[ 'cVU'\YU'h'Z'li a Ub'f][ \hg'Z'li a Ub]Uf]Ub'dc']Wz'B; C'gzXYj Y'cda Ybhdc']W'U'UbX  
fY'U'h'X' ]ggi Yg'! W'Y'W' h'Ya 'ci H'Mci 'X'cb'f'ib'Y'YX'hc'V'fc'UX'W'ghk \U'hrci '\UX'Zcf'VfYU\_Z]ghhc'XYf]j Y'VYbYZ]h  
Zca 'rk ]Hf'f'''' ]Hf'U'i gYZ 'gc'fW'cZi d!hc!XU'h'XYVU'h'gz'W]h'ei Yg'z'fY'gci fW'gz'c'Vg'UbX'cdcc'f'h' b]h]Yg'WbX  
m'Y'gz'U'chc'Z'bc'hc'g'ci gYZ 'gh'Z'hc'!f'ig'c'VY'gY'Y'W'j YQ

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

Gh XYbhZYXVUW\_\Ug'V'cbf]Vi H'X'U'W'j Y'mhc'fYg'Ud]b[ 'h'Y'V'ci fgY'hc'a U\_Y' ]ha c'fY'Yb[ U[ ]b[ 'UbX'hc'c'Z'Y'f  
fYU'!ha Y' ]bg][ \hg' ]b'hc'U'XYj Y'cda Ybh'cf]Yb'h'X'B; C'VUgYX' ]b'5i gh'U' ]U'Vi h'k'cf\_]b[ ' ]b'h'fb'U]cb'U'm''



## 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`hU`Y`a`Ubm`Z`fa`g`z`Z`ca`XY`]VYfUH`W`X`Y`U`h]b[ `h`U`W`X`Y`b`U`m`W`d`m]b[ `Z`ca`U`g`ci`f`W`k`]h`ci`h`U`W`\_`b`c`k`Y`X`[`Y`a`Y`b`h`

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

7`c`d`m]b[ `.`i`g]b[ `h`Y`g`U`a`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`i`h`c`f`]X`Y`U`k`]h`ci`h`U`W`\_`b`c`k`Y`X`[`]b[ `h`Y`g`ci`f`W`c`f`i`g]b[ `e`i`c`h`U`h`c`b`a`U`f`\_`g`"H`[g`U`g`c`U`d`d`]Y`g`h`c`]a`U`[`Y`g`z`U`f`h`U`b`X`X`Y`g][`b`d`f`c`Y`W`g`z`U`g`k`Y`"U`g`d`f`Y`g`Y`b`h`c`b`g`k`Y`f`Y`g`c`a`Y`c`b`Y`d`f`Y`g`Y`b`h`g`U`b`c`h`Y`f`g`]X`Y`U`g`c`f`k`c`f`X`g`k`]h`ci`h`W`Y`X`]h`

#U`d`d`f`c`d`f]U`h`Y`d`U`f`U`d`f`U`g]b[ `.`7`U`b[ ]b[ `U`Z`k`k`c`f`X`g`U`b`X`d`f`U`g`Y`g`k`Y`a`c`g`h`m`i`f`Y`h]b]b[ `h`Y`c`f][`]b`U`g`f`i`W`i`f`Y`U`b`X`#`f`d`f`c`[`f`Y`g`g]c`b`c`Z]X`Y`U`g`c`Z`h`Y`c`f][`]b`U`z`U`b`X`]b`Z`c`f`a`U`h`c`b`k`]h`ci`h`U`W`\_`b`c`k`Y`X`[`Y`a`Y`b`h`"H`[g`U`g`c`U`d`d`]Y`g`]b`d`f`Y`g`Y`b`h`c`b`g`k`Y`f`Y`g`c`a`Y`c`b`Y`d`U`f`U`d`f`U`g`Y`g`U`b`c`h`Y`f`g`]X`Y`U`g`c`f`k`c`f`X`g`k`]h`ci`h`W`Y`X`]h`U`b`X`h`c`d`]Y`W]b[ `h`c`[`Y`h`Y`f`e`i`c`h`Y`g`U`b`X`d`U`f`U`d`f`U`g`Y`g`]b`h`c`U`b`Y`k`k`Y`c`Y`z`k`]h`ci`h`U`d`d`f`c`d`f]U`h`Y`f`Y`Z`f`Y`b`W]b[ "

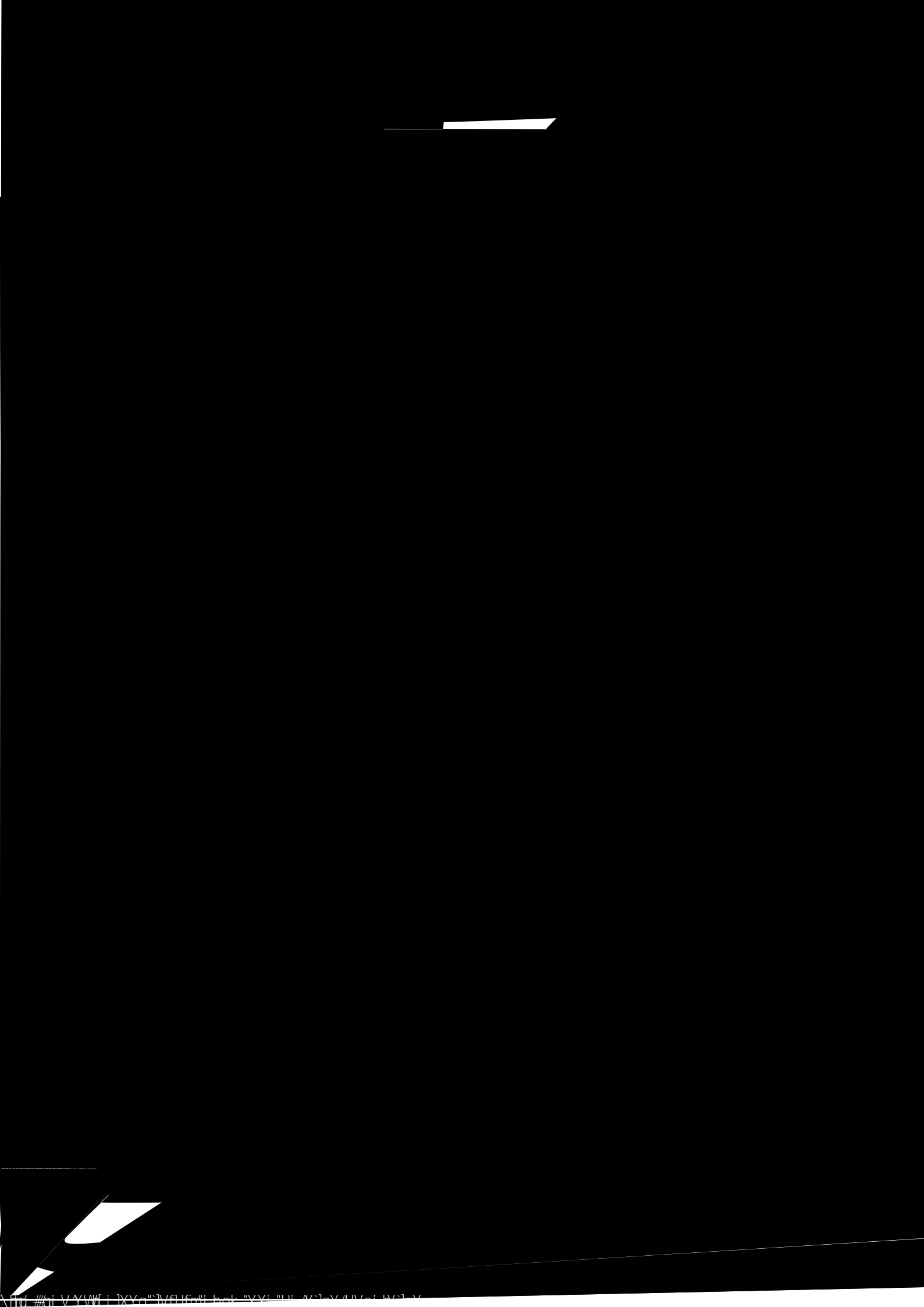
7`c`i`g]c`b`k`c`f`\_`b[ `k`]h`c`h`Y`f`g`V`i`h`d`U`g]b[ `c`Z`h`Y`k`c`f`\_`U`g`U`d`Y`f`g`c`b`g`]b`X]j`]X`i`U`k`c`f`\_`"7`c`i`g]c`b`U`g`c`]b`W`i`X`Y`g`d`f`c`j`]X]b[ `m`c`i`f`k`c`f`\_`h`c`U`b`c`h`Y`f`g`h`i`X`Y`b`h`V`Y`Z`c`f`Y`h`Y`X`i`Y`X`U`h`z`c`f`Z`c`f`h`Y`d`i`f`d`c`g`Y`c`Z`h`Y`a`d`U`[ ]Uf]g]b[ `U`h`U`b`m`h`j`a`Y`z`d`U`m]b[ `U`b`c`h`Y`f`d`Y`f`g`c`b`h`c`d`Y`f`Z`c`f`a`U`b`U`W`X`Y`a`]W`h`U`g`\_`z`g`h`U`]b[ `c`f`U`W`e`i`]f]b[ `U`b`c`h`Y`f`d`Y`f`g`c`b`g`U`W`X`Y`a`]W`k`c`f`\_`U`b`X`W`e`d`m]b[ `]h`z`c`Z`Y]b[ `h`c`W`e`a`d`Y`h`U`b`c`h`Y`f`d`Y`f`g`c`b`g`k`c`f`\_`c`f`g`Y`Y`\_]b[ `d`U`m`a`Y`b`h`Z`c`f`W`e`a`d`Y`h]b[ `U`W`X`Y`a`]W`k`c`f`\_`"

#U`d`d`f`c`d`f]U`h`Y`W`h`c`b`7`]h]b[ `g`c`i`f`W`g`k`k`]W`k`U`j`Y`b`c`h`V`Y`Y`b`f`Y`U`X`z`k`]h`ci`h`U`W`\_`b`c`k`Y`X`[`]b[ `h`Y`"g`Y`W`e`b`X`U`f`m`g`c`i`f`W`Z`c`a`k`k`]W`k`\_`b`c`k`Y`X`[`Y`c`Z`h`Y`a`U`g`V`Y`Y`b`c`V`h]b]Y`X`"

8`i`d`]W`h]c`b`f`f`g`Y`Z`d`U`[ ]Uf]ga`"L`g`i`V`a`]h]b[ `m`c`i`f`k`b`k`c`f`\_`z`]b`k`Y`c`f`]b`d`U`f`z`k`Y`f`Y`]h`U`g`d`f`Y`j`c`i`g`m`V`Y`Y`b`d`f`Y`d`U`f`Y`X`c`f`g`i`V`a`]h`Y`X`Z`c`f`U`b`c`h`Y`f`U`g`g`Y`g`g`a`Y`b`h`c`f`W`e`i`f`g`Y`U`h`I`B`G`K`c`f`U`b`c`h`Y`f`i`b`j`Y`f`g]m`"

7`c`f`f`Y`W`i`f`Y`Z`f`Y`b`W]b[ `d`f`U`W]W`g.

- D`U`f`U`d`f`U`g]b[ `z`g`i`a`a`U`f]g]b[ `z`Y`g`g`U`m`k`f]h]b[ `U`b`X`h`j`a`Y`a`U`b`U`[`Y`a`Y`b`h`
- 5`d`d`f`c`d`f]U`h`Y`d`Y`c`]b`U`b`X`f`h`f`V`i`h]c`b`Z`c`f`U`b`h`c`Z`a`U`g`Y`U`d`Y`g]b`W`i`X]b[ `h`Y`i`h`z`U`f`c`U`g`z`k`Z`c`f`a`b`]U`Y`"U`Z`X`\_"`W`e`b`W`d`r`g`"



5 WXYa ]WbZcfa Uhcb`

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