



# EDST5128

7 ca a i b]WU]cb`8 ]gcfXYfg`UbX`5gg]ghj`Y`HYW\bc`c[ m

GYa YghYf`C.bY`#`&\$%



GWXcc``cZ9XI WU]cb`#`I BGK ``5fng`UbX`GcWU``G\WYbW`g

7 ci fgY`Cj Yfj ]Yk

`GHUZZ7cbHJW`i8YHJ`g`

`7cbj Ybcfg`

B Ua Y	9a U]`	5j U]UV]`]m	@cWJhcb	D\cbY
8f`H\YfYgY`A 7i a a ]b[				


7ci fgY'8YHJ]`g

7fYX]hDc]bhtg`\*`

Gi a a UfmicZ\hY'7ci fgY

H\Y'Wci fgY'dfcj ]XYg'Ub'cj Yfj ]Yk'cZWca a i b]WU]cb'X]gcfXYfgz'UbX'Ui [ a YbU]h] Y'UbX'U'fYfbU]h] Y'f557Ł  
Wca a i b]WU]cb'UddfcUWXyg'Zcf'j]bX]j ]Xi U'g'k ]h'gYj YfY'Wca a i b]WU]cb'ja dU]fa Ybhtg"9a d\Ug]g'j]g'cb  
XYj Y'cda YbU'Wcbg]XYfU]h]cbgžYWc'c[ ]WU'`bYYXgžYXi WU]cbU'Wcbg]XYfU]h]cbgžW]b]WU'UggYgga Ybhtgž  
gY'YWU]cb'UbX'ja d'Ya YbU]h]cb'cZUi [ a YbU]h] Y'gmghYa gžUbX'fYgYUfW!VUgYX'dfUW]Wg"

BchY.'H\]g'Wci fgY'j]g'h]i [ \h]b'j]b]h]bg]j Y'a cXY"

5h\hY'WcbWi g]cb'cZ\h]g'Wci fgY'hY'ghi XYbhk ]`VY'UV'Y'hc

% " 8Yg][ b'U[ Y'Uddfcdf]U]h' ]b]g]h]i W]cb'VUgYX'cb'hY'UXUd]h] Y'UbX'Wca a i b]WU]cb'g\_]`g'cZgh XYbhtg  
k ]h'a cXYfU]h'UbX'gYj YfY'X]gUV]j]h]Yg"  
&" F YWc[ b]gY'UbX'XYgW]VY'fYgYUfW!VUgYX' ]b]g]h]i W]cbU'UbX'Wca a i b]WU]cb'ghfU]h] [ ]Yg'UbX  
dfUW]Wgž]bWi X]b[ 'h]g\_'UbU'mg]g'a i 'h]gYbgcfmž'UbX'WcbWYfY# Ub]di 'U]h] Y'hYWXb]ei Yg"  
' " 8YZ]bY'Ugg]g]h] Y'hYWXbc'c[ m]f5HŁž'Vch'`ck'UbX'\][ \hYWX'UbX'hY]f'hYcfYh]WU'`i bXYfd]bb]b[ g"  
( " 5ggYgg'gh XYbhUV]j]h]Yg'UbX'YXi WU]cbU'Ybj ]fcb]a Ybhtg'hc'd'Ub'Vch'Wca a i b]WU]cb'UbX'5H  
]b]h]fj Yb]h]cbg'Zcf'gh XYbhtg'k ]h'Wca a i b]WU]cb'X]gcfXYfgž]b]h'`YWU'U'X]gUV]j]h]Ygž'UbX'Ui h]ga "

HYUWX]b[ 'GhfU]h] [ ]Yg'

č'cfXYf'hc'dU]h]W]dU]h'Z'`m]b'j]bWi g]j Y'Ybj ]fcb]a Ybhtg'j]b'gWcc'`UbX'hY'Wca a i b]mž]bX]j ]Xi U'g'k ]h  
Wca a i b]WU]cb'X]gcfXYfg'ZfYei YbhmfYei ]fY'Ui [ a YbU]h] Y'UbX'f'U'fYfbU]h] Y'gmghYa g'cZWca a i b]WU]cb'  
H\Y'Wcb]h]b]h]cZ\h]g'Wci fgY'j]g'ZcW'gYX'cb'Wca a i b]WU]cb'X]gcfXYfgž'UggYgga Ybh]cZgh XYbhtg'`bYYXgž'UbX  
ghfU]h] [ ]Yg'h]U]h]U]h]U]h]Yfg'W]b'i gY'hc'gi W]W'ggZ'`m]a d'Ya Yb]h]U] [ a YbU]h] Y'dfUW]Wg"HYUWX'Yfg'k ]`U]j Y  
hY'cddcf]h] b]m]hc'Yi dYf]YbW'`h]YgY'U'fYfbU]h] Y'Zcfa g'cZWca a i b]WU]cb'Z]fgh\UbXž]b'cfXYf'hc'VY'Z'`m  
Yei ]ddYX'hc'Ugg]gh]h] XYbhtg'k ]h'gdYW]U'`bYYXg'j]b'h]g'UfYU" H\Y'Zc'ck ]b[ 'hYUWX]b[ '\U]h]U]h]U]h]Yf]



# 5ggYgga Ybh

## 5ggYgga YbhHUg\_g`

5ggYgga YbhHUg_	K Y][ \h	Gh XYbh@YUfb]b[ Ci hWta Yg 5ggYggYX	5 #HG@DfcZYgg]cbU`'; fUXi UHY HYUW]b[ 'GHUbXUfXg'5ggYggYX	8i Y 8UHY
5bbchUHYX V]V`]c[ fUd\mi	&\$i	&ž	b#J	%* # \$ ' # & \$ % % % \$ \$ DA
F YgYUfW`dUdYf`	' ) i	&ž(	b#J	% # \$( # & \$ % % % \$ \$ DA
7 UgY`gh Xm	( ) i	%ž&ž(	b#J	\$( # \$ * # & \$ % % % \$ \$ DA

D`YUgY`fYZf`hc`3gefδ`S` BδXWē[a` S^E fS` VSdVe XδdFWSUZWē`cb`h.Y`dfY

Gi Va ]gg]cb`cZ5ggYgga YbhHUg\_g

Gh XYbng`UfY`YI dYW`X`hc`di h`h`Y]f`bUa Yg`UbX`gh XYbhbi a VYfg`cb`Yj YfmdU[ Y`cZ`h`Y]f`Ugg][ ba Ybhg"

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

≠mci`YbWci bhYf`U`dfcV`Ya`k`Yb`U`h`Ya`dh]b[`hc`gi Va ]hmcif`Ugg][ ba Ybh`h`fci [ `h`Hi`fb]h]b`z`d`YUgY  
h`Y`d`cb`Y`9I`h`fb`U`Gi`ddcfh`cb`-`,`)`''`'`%cf`Ya`U]`h`Ya`cb`[YI`h`fb`U`h`h`gi`ddcfh`i`bgk`"YXi`"Ui`"Gi`ddcfh](#)

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` ]b`U`g`g`Y`g`g`U`V`Y`k` c`f`\_`z`V`Y` ]h`U`Z`c`f`a` U`Y`b`X`!`c`Z`g`Y`a` Y`g`h`f`Y`I` U`a` ]b`U`h`c`b`z`U`  
W`U`g`g`h`Y`g`h`z`U`U`V`c`f`U`h`c`f`m`h`Y`g`h`z`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`z`<`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`Y`.

[\h`d`g`#`g`h`X`Y`b`h`i`b`g`k`"Y`X`i`"U`i`#`g`d`Y`W`U`!`W`c`b`g`\]X`Y`f`U`h`c`b`](#)

## 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" #WUb'hU\_Y'a Ubm Zcfa gž Zca 'XY]VYfUHy'WXYU]b[ 'hc'UWV]XYbU`mWčdm]b[ Zca 'U'gci fW'k ]h'ci hUW\_bck 'YX[ Ya Ybh'

I BGK '[ fci dg'd`U[ ]Uf]ga ]bhc'hY'Zc`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'ja U[ YgžUfhUbX'XYg][ b'dfc'YWgžUg'k Y`'Ug dfYgYbhU]cbg'k \YfY'gca YcbY'dfYgYbhg'Ubc'hYf'g:]XYUg'cf'k cfXg'k ]h'ci hWYX]h'

#Uddfcdf]UHy'dUfUd\fUg]b[ .W\Ub[ ]b[ 'U'Zy'k cfXg'UbX'd\UgYg'k \]Y'a cghmfYU]b]b[ 'hY'cf][ ]bU'gf'i W\ fY'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\UgYg'Ubc'hYf'g:]XYUg'cf'k cfXg'k ]h'ci hWYX]h' #U'gc'Udd']Yg'hc'd]YW]b[ 'hc[ YhYf'ei chYg'UbX'dUfUd\UgYg']bhc'U'bYk'k \c'Yžk ]h'ci hfYZfYbW]b[ 'UbX'U'ghi XYbh'g'ck b'UbU'mg]g'hc'Vf]b[ 'hY'a UHyf]U'hc[ YhYf"

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'Ubc'hYf'ghi XYbhVYZc'fY'hY'Xi Y'XUHyžcf'Zc'f'hY'di fdcgY'cZ'hYa d`U[ ]Uf]g]b[ 'UhUbmi]ja Yž'dUm]b[ 'Ubc'hYf'dYfgcb'hc'dYfZc'fa 'Ub'UWXYa ]WUg\_žghU' ]b[ 'cf'UWči ]f]b[ Ubc'hYf'dYfgcb'g'UWXYa ]Wk cf\_'UbX'Wčdm]b[ ]ž'cZYf]b[ 'hc'Wč'a d'YHy'Ubc'hYf'dYfgcb'g'k cf\_'cf'gYY\_]b[ dUma YbhZc'f'Wč'a d'Y]b[ 'UWXYa ]Wk cf\_"

#Uddfcdf]UHy'W]U]cb. 7 ]h]b[ 'gci fW'g'k \]W\Uj Y'bc'hVYYb'fYUXžk ]h'ci hUW\_bck 'YX[ ]b[ 'hY'`gYWčbXUfm' gci fW'Zca 'k \]W\_bck 'YX[ Y'cZ'hYa '\Ug'VYYb'cVU]bYX"

8i d`]WU]cb'ffgY'Zd`U[ ]Uf]ga "E'gi Va ]h]b[ 'mci f'ck b'k cf\_ž]b'k \c'Y'cf']b'dUfž'k \YfY']h\Ug'dfYj ]ci g'm VYYb'dfYdUfYX'cf'gi Va ]hYX'Zc'f'Ubc'hYf'UggYgga Ybhcf'Wč'i fgY'Uhi BGK 'cf'Ubc'hYf'i b]j Yfg]m'

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

- DUfUd\Ug]b[ žgi a a Uf]g]b[ žYggUmk f]h]b[ 'UbX'h]a Y'a UbU[ Ya Ybh
-



- VYhYf'a UbU[ Y'mci f'hja Y
- i bXYfgHUbX'mci f'f][ \hg'UbX'fYgdcbg]V]hYg'Ug'U'gh XYbhUhl BGK
- VY'Uk UfY'cZd'U[ ]Uf]ga ž'W'dmf][ \hž' BGK 'Gh XYbh7cXY'cZ7cbXi WñUbX'5WwdfUV'Y'l gY'cZ  
I BGK '⇒H'F Ygci fW'g'Dc`]Wñ



