

- ; . / _=.*; #(%&.&)*VN.&=*J#".6#'(*#"*F#'%H<.6*J#5(#+"*,+&*!.4-*99#'<#&*3*>C?d0*
- ! *#84*;&':+&9*"&3*>C?d6* F#'%H<.6*F++e*VN.&='*J#''.6#'(*#''*-%)''fT+<''7*V=<6(*J#5(#+''*.+&*'.4-*9)#'<#&*3*>C?d6*J#5(#+''*.+&*'.4-*9)#''<#&*3*>C?d6*J#5(#+''*.+&*'.4-*9)#''<#&*3*>C?d6*J#5(#+''*.+&*'.4-*9)#''<#&*3*>C?d6*J#5(#+''*.+&*'.4-*9)#''<#&*3*>C?d6*J#5(#+''*.+&*'.4-*9)#''<#&*3*>C?d6*J#5(#+''*.+&*'.4-*9)#''<#&*3*>C?d6*J#5(#+''*.+&*'.4-*9)#''<
- F&#((.")*W@*2.&=&&G*W#=`4+<(9*4+5#+6+7#5.6*V''+5#.(#+"3*>C?d@*F#' H<.6*F++e*VN.&='*J#''.6#'(*#''*W)'(&)*XN#(9*V6%H."=&.*1626*O+N.e+N'e#[*.+&:9)*'''
- 4) / _+6#5*P"(%&.5(#+"3*>C>C6* W#=`4+<(9*4+5#+6+7#5.6*V''+5#.(#+''*5#6/#4#7/6.4'58*69''% - 'V&(#56%*+.*(9%*T%.&*VN.&=*.+&* a!"=%&'(."=#"7*8%"=%&*.'*.*J<"=./%"(.6*].<'%*+,*2%.6(9b*4#/<6(."%+<'*;#"%.&* S%6.(#+"'9#0'* %(N%%''*8%''=%&3*W%''(.6*2%.6(93*."=*A9)'#5.6*2%.6(9*+\$%&*(#/%c*XN#(9*
- 4+5#+6+7#5.6*V''+5#.(#+"3*>C>>6* $4+5\#()^{*},+\&^{(9)}(4+(<=)^{*},*4)/(+6\#5^{*}P''()^{*},+\&^{(9)}(3+(<+)^{*}P''()^{*},+\&^{(9)}(3+(<+)^{*}P''()^{*},+\&^{(9)}(3+(<+)^{*}P''()^{*},+\&^{(9)}(3+(<+)^{*}P''()^{*},+\&^{(9)}(3+(<+)^{*}P''()^{*},+\&^{(9)}(3+(<+)^{*}P''()^{*},+\&^{(9)}(3+(<+)^{*}P''()^{*},+\&^{(9)}(3+(<+)^{*}P''()^{*},+\&^{(9)}(3+(<+)^{*}P''()^{*},+\&^{(9)}(3+(<+)^{*}P''()^{*},+\&^{(9)}(3+(<+)^{*}P''()^{*},+\&^{(9)}(3+(<+)^{*}P''()^{*},+\&^{(9)}(3+(<+)^{*}P''()^{*},+\&^{(9)}(3+(<+)^{*}P''()^{*},+\&^{(9)}(3+(<+)^{*}P''()^{*},+\&^{(9)}(3+(<+)^{*}P''()^{*},+\&^{(9)}(3+(<+)^{*}P''()^{*},+\&^{(9)}(3+(<+)^{*}P''()^{*},+\&^{(9)}(3+(<+)^{*}P''()^{*},+\&^{(9)}(3+(<+)^{*}P''()^{*},+&^{(9)}(3+(<+)^{*}P''()^{*},+&^{(9)}(3+(<+)^{*}P''()^{*},+&^{(9)}(3+(<+)^{*}P''()^{*},+&^{(9)}(3+(<+)^{*}P''()^{*},+&^{(9)}(3+(<+)^{*}P''()^{*},+&^{(9)}(3+(<+)^{*}P''()^{*},+&^{(9)}(3+(<+)^{*}P''()^{*},+&^{(9)}(3+(<+)^{*}P''()^{*},+&^{(9)}(3+(<+)^{*}P''()^{*},+&^{(9)}(3+(<+)^{*}P''()^{*},+&^{(9)}(3+(<+)^{*}P''()^{*},+&^{(9)}(3+(<+)^{*}P''()^{*},+&^{(9)}(3+(<+)^{*}P''()^{*},+&^{(9)}(3+(<+)^{*}P''()^{*},+&^{(9)}(3+(<+)^{*}P''()^{*},+&^{(9)}(3+(<+)^{*}P''()^{*},+&^{(9)}(3+(<+)^{*}P''()^{*},+&^{(9)}(3+(<+)^{*}P''()^{*},+&^{(9)}(3+(<+)^{*}P''()^{*},+&^{(9)}(3+(<+)^{*}P''()^{*},+&^{(9)}(3+(<+)^{*}P''()^{*},+&^{(9)}(3+(<+)^{*}P''()^{*},+&^{(9)}(3+(<+)^{*}P''()^{*},+&^{(9)}(3+(<+)^{*}P''()^{*},+&^{(9)}(3+(<+)^{*}P''()^{*},+&^{(9)}(3+(<+)^{*}P''()^{*},+&^{(9)}(3+(<+)^{*}P''()^{*},+&^{(9)}(3+(<+)^{*}P''()^{*},+&^{(9)}(3+(<+)^{*}P''()^{*},+&^{(9)}(3+(<+)^{*}P''()^{*},+&^{(9)}(3+(<+)^{*}P''()^{*},+&^{(9)}(3+(<+)^{*}P''()^{*},+&^{(9)}(3+(<+)^{*}P''()^{*},+&^{(9)}(3+(<+)^{*}P''()^{*},+&^{(9)}(3+(<+)^{*}P''()^{*},+&^{(9)}(3+(<+)^{*}P''()^{*},+&^{(9)}(3+(<+)^{*}P''()^{*},+&^{(9)}(3+(<+)^{*}P''()^{*},+&^{(9)}(3+(<+)^{*}P''()^{*},+&^{(9)}(3+(<+)^{*}P''()^{*},+&^{(9)}(3+(<+)^{*}P''()^{*},+&^{(9)}(3+(<+)^{*}P''()^{*},+&^{(9)}(3+(<+)^{*}P''()^{*},+&^{(9)}(3+(<+)^{*}P''()^{*},+&^{(9)}(3+(<+)^{*}P''()^{*},+&^{(9)}(3+(<+)^{*}P''()^{*},+&^{(9)}(3+(<+)^{*}P''(),+&^{(9)}(3+(<+)^{*}P''(),+&^{(9)}(3+(<+)^{*}P''(),+$
- /%/_%&*+,*(9%*-%H.'*V:W*]+"'+&(#</3*>C>>6*
- -9%*>C>?*8%+&7%*8.&&((*J#5(#+''*A&*^%*,+&*(''.\$& -/&&/#\$0'1'2#3*46*-%H.'*S%\$#%N*A&%''3*.*
- V7%''(*+,*]9.''7%*VN.&=G*!''#%&'#()*+,*-./0.3*>C>KG*

- $J_{6+\&\#=.*4(.(\%*!''\#\%\&'\#()*$ $>CC \$ F.59%6+&*+,*V&('3*A+6#(#5.6*45#%"5%*
- W. $(\%^{*}+.^{*}45^{\#}\%''5^{\%}3^{*}4+5^{\#}+6+7)^{*}$

V < 7 < '(.*!'' # % & ' # ()*

- $>C?C^*$
- $J_{6+\&\#=.*4(.(\%*!''\#\%\&'')))$

! OPQRS4P - T*UJ* - VWAV*

- >C?>* 1+5(+&*+,*A9#6+'+09)3*4+5#+6+7)*

- V''#'(."(*A&+,%''+&*X>C?B*Z*>C>C[* O#'#(#"7*V''#'(."(*A&+,%''+&*X>C?>*Z*>C?B[*

1%0.&(/%''(*+,*2#'(+&))*4+5#+6+7)3*8%+7&.09)3*:*;%7.6*4(<=#%'*)>?@*A6."(*2.66* -. / 0.3*J ; *KK@C@* L' < / %&. < M < (G% = <*)NNNGL'</%&.<G5+/*

1 #&%5(+&*+,*V006#%=*4+5#+6+7)*X>C?Y*Z*0&%'%"([*

 $V''+5\#.(\%^{A}\&+,\%''+\&^{X}>C>C^{Z}O\&\%'\%''([*$

BC?*D%'(*E%""%=)*F6\$=G*F+H*I*

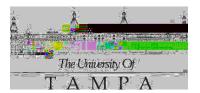
NNNGN&#(%N9%&%#(9<&('G''%(*

The University Of TAMPA

! "#\$#%\$&'()*+,()*-' ! "#\$%&'#()*+,*-./0.*



- ; . / _=.*; #(%&.&)*VN.&=*J#".6#'(*#"*F#'%H<.6*J#5(#+"*,+&*=#-*6#-/\$7'>%**\$&3*>C?\G*
- J.5<6()*Q+6<"(%%&*+,*(9%*T%.&*VN.&=6*!"#\$%&'#()*+,*-./0.3*>C?g6*
-] +66%7%*+,*4+5#.6*45#%"5%'3*W.(9% / .(#5'3*."=*R=<5.(#+"*U<('(."=#"7*459+6.&*VN.&=G* ! "#\$%&'#()* +,*-. / 0.3*>C?gG*
- $\begin{array}{c} V \ / \ \% \& \# 5 . \\ "*4 + 5 \# + 6 + 7 \# 5 . \\ \hline 6^* V \ ' + 5 \# . \\ (\# + "*4 \% 5 (\# + "*, + \& * S \% 6 \# 7 \# + "* 1 \# ' (\# "7 < \# '9 \% = * V \& (\# 56 \% * VN . \& = *, + \& * a] + "(\% \ / \ 0 + \& . \&) * S \% 6 \# 7 \# + "* . \\ "=*(9 \%] \# '7 \% "= \% \& \# "7 * + , * S \% . 6 \# () c * XN \# (9 * S) . \\ "* G^*] \& . 7 < "* . \\ "=*(9 \%) \# '7 \% = \% \& \# "7 * + , * S \% . 6 \# () c * XN \# (9 * S) . \\ "* G^*] \& . 7 < "* . \\ "=*(9 \%) \# '7 \% = \% \& \# "7 * + , * S \% . 6 \# () c * XN \# (9 * S) . \\ "* G^*] \& . \\ "*$
 - ;.#"*V6F6*W.(9%&'[6*V / %."*4+5#+6+7#5.6*V''+5#.(#+"3*>C?@6*
- $\begin{array}{l} 4 + 5 \# + 6 + 7 \# '('*, + \&^* D + / \%'' * \# ''*4 + 5 \# \% () * 4 + < (9^* R. \& 6) * 8 \%'' = \% \&^*] \\ D + / \%'' * \# ''*4 + 5 \# \% () * 4 + < (93^* > C? @ G^{**} \\ \end{array}$
- ! " '<"7*2%&+*VN.&=6** ! "#\$%&'#()*+,*-. / 0.3*>C?Y6**
- U < ('(."=#"7*!"=%&7&.=<.(%*-%.59#"7*VN.&=0*J6+&#=.*4(.(%*!"#%&'#()3*>C?>6*))))
- $V / \% \& \#5 . "*4+5 \#+6+7 \#5 . 6*V' +5 \#. (\#+ "*4\%5(\#+"*, +\&*4\%H*. "=*8\%"=\%\&*4 . 66) * 2 . 5e\%\&*8\&. =< . (\%*4(<=\%"(*A.0\%\&*VN.\&=*, +\&*aaF\%5+ / \#'7*S\%'0+"'\#_6\%*8.)*] 9\& \#'(\#. "*W\%"cb*S\%'0+"'\#_\#6 \#()*1 \#'5+<\&'\%'3*] + /0\%"'.(+\&)*W. "9++=*V5('3*. "=*P'\%i<.6#()*#"*.*W\%(\&+0+6\#(."*]+ / /<"#()*1 9<&596c*V / \% \& \#5. "*4+5 \#+6+7 \#5.6*V'+5 \#.(#+"*4\%5(\#+"3*>C??6*)$



X/&9/\$7%/&)*?'H##I'1A."?'

*E?/*9*?'\#4% - *&'FGD0'

>C>K0*()*'<#A - .\$']'O/994*B/*4?'=.\$?C##I'#\$'(".\$&7*\$?*"'59%?/*&0* ;."9./3*W1b*S+N/."*:*;#((6%,#%6=0*

4# / <6.3*F&."=)3* 3*."=*V"=&%.*W#66%&&>C?d&EQ8.\$?/\$7'9)*'<./\$C#A0' EQ84#"/\$7'9)*'<*4.9/#\$&)/8&'#B'H/`P'!#4+.-#"#%&P'a/\$I+P'16*P'J\$9*"&*QP'.\$?'(".\$&' !*#84*&F+'(+"3*WVb*FBf4%"'%&

2#-/\$.9*?'B#"'9)*'RSRS'O.-C?.'O/9*"."+'1A."?&'



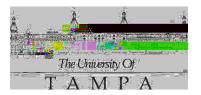
>C?gG*E&&*\$6*G*A<_6#'9%=*#"=%0%"=%"(6)6*

2#-/\$.9*?'B#"'RSTe'H/'H##I'1A."?&'

! **''@<*3/*A*?'W#%''\$.4'1''9/64*&'F^TDb*

$$\begin{split} & W.(9\%\&'3^*; .\#''*V6F6^*."=^* & G^*>G^*aV''*P''(\%\&.5(\#+''\#'(^*VOO\&+.59^*(+^*F-; 8^*A\&\#=\%6c^*>\%.4/9.9/3*'<^*8\#''9'>gX??[b^*>Y\setminus K^>@CB6^* \end{split}$$

 $. "=*8 \# < '\%00\#" . *Q.66\% * 2 + 6N.) G >> G a - \&. "'7\%" = \%\&^*A + ''#_\#6\#(\#\%'*. "=*(9\%) + 16\%) = \%\&^*D + 16\% +$



 $\begin{array}{l} W_{++}"_{3}^{*}1 . N"_{3}^{*}-9\%\&\%' .^{*}-+_{\#}"_{3}^{*}."=^{*} \\ \#"^{*}F\%(N\%\%"_{b}^{*}; 8 \ F-1 \ P^{*}]+"'\%\&\$.(\#\$\%^{*}] 9\&\#'(\#."^{*}\%,,+\&('^{*}(+^{*}\&\%(9\#" \ e^{*}8 \ \%''=\%\&\&c^{*}L^{*}\$?^{*}''' \ J'' \\ 5\#6/^{*}9+'KKXB[b^{*}Y\setminus K^{*}@C@C^{*} \\ \end{array}$

O+N.e+N'e#3*V6%H."=&.*]6263*14.\$'V).\$3*W#"?.\$'M/44*"3*."=* 6*>C?d6* aP66"%''*W.".7% / %''(*#"*U6=%&*;8F-*]+<06%'6c*L*"#\$9#4#7+'.\$?'L*"/.9"/6'M*?/6/\$*' 9((0'bff=+#6+&7f?C6??ggf>KKKg>?B?\\>>\@Y6*

V6%H."=&.*]G2G*O+N.e+N'e#*."=* V*]+66._+&.#"3*."=* G*>C?dG*aS%,&. / #"7*2%.6(9*."=*P66"%''b*





C?gG*aa4+ / %*+,*<'*.&%*7++=3*8+=`,%.&#''7*,+6e'cb*k<'(#,)#''7* S%6#7#+<'*A.&(#5#0.(#+''*#''*.''*;8F-*]9&#'(#.''*]9<&596c*W#%''\$.4'#B'V#\$9*-8#''.''+' E9)\$#7''.8)+'B@X?[b*K`>dZ'

] &. 7<" 3^*S). "*- 6^* ."=* $6^*>C?g6^*a$; +'#"7*W."9++=*6#e%*.*W."b*V*5+66._+&.(#\$%* .<(+%(9"+7&.09#5*%H./#".(#+"*+,*/.'5<6#"#(#%'*."=*(9%*%H0%&#%"5%*+,*.*\$.'%5(+/)6c*M*\$' .\$?'M. &6%4/\$/9/*&'>CX?[b*d\`??@6**

 $3^{*}S) . "^{*}-0^{*}] \& .7 < "^{*}. "=^{*}-\&#" .^{*}4 / #(90^{*}>C?g0^{*}aW\% "^{*}"\%\$\%\&^{*}5\&) bc^{*}S\%0\&\% '\% "(#"7^{*}W+\&/+"^{*}W . "9++=^{*}#"^{*}(9\%] 9<\&59^{*}+,^{*}k\% '<'^{*}] 9\&#'(*+,^{*}; .((\%\&^{-}=.)^{*}4.#"('0c^{*}5#6/#4#7/6.4') / #6\%\&'YCXK[b^{*}>?K^{*}>>g0^{*}$

O+N.e+N'e#3*



."=*1%_+&.9*]&.7<"C?@C*aJ&./%'*+,*S%,%&%"5%b*VO06)#"7*4+5#+6+7)*#"* P"(%&=#'5#06#".&)*W%=#5.6*4%((#"7'6c*W#%"\$.4'#B'1884/*?'5#6/.4'56/*\$6*'?CX>[b*??K`??\C*

3**O*./\$'12HZ'M.9)*"&'."=*S)."*-0*]&.7<"C*>C?@C*aaP*,+<"=*8+=*#"*(9%*76+&)* 9+6%cb*-9%*W+&.6*].&%%&+,*.*8.)*]9&#'(#."Cc*5#6/#4#7/6.4'J\$K%/"+'\@XB[b*@?\`@BCC*

>C?@G*aaPh / *L<'(*''+(*'<&%*._+<(*(9%#&*\$.6<%'cb*; 8 F - *] 9&#'(#.'''*(.6e*._+<(* ''+''`_%6#%\$%&'Gc*5*6%4.''/&-'.\$?'2#\$''*4/7/#\$'YX\[b*?`?>Z'

3*S)."*-G*]&.7<"3*."=*O./\$'1ZHZ'M.9)*"&G*>C?@G*a]+"(%/O+&.&)*S%6#7#+"* ."=*(9%*]#'7%"=%&#"7+,*S%.6#()Gc*5#6/.4'V%""*\$9&'KXK[b*>dK`K??G*

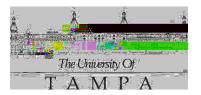
Y/\$\$*"'*RSTf*'1 - *"/6.\$'5#6/#4#7/6.4'1&/.9/#\$'5*69/#\$'#\$'<*4/7/#\$' *X*/&9/\$7%/&)*?'1"9/64*'1A."?'

3*0./\$'12HZ'M.9)*"&'."=*S)."*-G*]&.7<"G*>C?@G*aP*L<'(*5."h(*O<(*/)*,#"7%&* +"*#(cb*V*&%'%.&59*&%O+&(*+"*(9%*"+"%H#'(%"5%*."=*/%."#"76%'''%''*+,*'#"*N#(9#"*(9%* 4+5#.6*45#%"5%'Gc*()*'>%.4/9.9/3*'<*8#''9'>?X@[b*??K>`??BBG*

O+N.e+N'e#3*V6%H."=&.*] G2G3* _O(*,<(<&%*,+&*=#._%(%'*5.&%*."=*/.".7% /%"(*_)*N&#(#"7*N9%&%*#(*9<&('6c*!01JX0' !*#84*'0/3/\$7'A/9)'.\$?'J\$&8/"*?'C+'X/.C*9*&'>X?[b*@B`@gG**

. "=*S) . "*-0*] & .7 < "0* > C?@0*aa 2 + N*6 + N*5 . "*9 < / . "*06 < "7%cb*J . 5#6#(.(#"7*W+& .6*U00+'#(#+"*#"*-9%*]9 < & 59*+, *k%' < '*]9 & "(*+,*;.((%&`=.)*4 . #"('6c*>%.4/9.9/3*'5#6/#4#7+'<*3/*A''?>X?[b*B>`Yd0*

 $] \&.7 < "3*S) . "*-6*."=* 6*>C?Y6*a8+=*/.)*'. \$\%*) + < \&*6\#, \%3*_<(*) + <*9. \$\%*(+*, \#"=*) + < \&*6\#, \%3*_<(*) + <*9. \$\%*(+*, \#"=*) + < \&*6\#, \%3*_<(*) + <*9. \$\%*(+*, \#"=*) + < &*6\#, \%3*_<(*) + <*9. \$\%*(+*, \#"=*) + < &*6\#, \%3*_<(*) + <*9. \$\%*(+*, \#"=*) + < &*6\#, \%3*_<(*) + <*9. \$\%*(+*, \#"=*) + < &*6\#, \%3*_<(*) + <*9. \$\%*(+*, \#"=*) + <*0. \$\%*(+*, \#"=*) + <*0. \$\%*(+*, \#"=*) + <*0. \$\%*(+*, \#"=*) + <*0. \$\%*(+*, \#"=*) + <*0. \$\%*(+*, \#"=*) + <*0. \$\%*(+*, \#"=*) + <*0. \$\%*(+*, \#"=*) + <*0. \$\%*(+*, \#"=*) + <*0. \$\%*(+*, \#"=*) + <*0. \$\%*(+*, \#"=*) + <*0. \$\%*(+*, \#"=*) + <*0. \$\%*(+*, \#"=*) + <*0. \$\%*(+*, \#"=*) + <*0. \$\%*(+*, \#"=*) + <*0. \$\%*(+*, \#"=*) + <*0. \$\%*(+*, \#"=*) + <*0. \$\%*(+*, \#"=*) + <*0. \$\%*(+*, \#'=*) + <*0. \$\%*(+*, \#'=*) + <*0. \$\%*(+*, \#'=*) + <*0. \$\%*(+*, \#'=*) + <*0. \$\%*(+*, \#'=*) + <*0. \$\%*(+*, \#'=*) + <*0. \$\%*(+*, \#'=*) + <*0. \$\%*(+*, \#'=*) + <*0. \$\%*(+*, \#'=*) + <*0. \$\%*(+*, \#'=*) + <*0. \$\%*(+*, \#'=*) + <*0. $\%$



1"6)/3'B#"'9)*'!* &+6)#4#7+'#B'<*4/7/#\$'Kgb*K>?`KB>6*

] &. 7<"3*S) . "*-63* 3* . "=*E - /4 + 'Y/44/. - &6*>C?Y6*aJ&+ / *4+=+ /)*(+* 4) / 0.(9) cb*; 1 4*R6#(% 'h*1#'5<&'#\$%*] +" '(&<5(#+"*+,*2 + / + '%H<.6#()*U\$%&*-# / %6c*W#%''\$.4' B#'''9) *'56/*\$9/B/6'59%?+'#B'<*4/7/#\$'YBX>[b*>d?`K?C6*

3*P&%''%*A.=.\$#53*. "=*1+<76. '*AG*459&+5eG*>C?YG*aa;#((6%*7#&6'* <"N#66#"'7*(+*=+*N9.(h'*_%'(*,+&*(9% / cb*S%'<&&%5(#"'7*A.(&#.&59)*#"*. "*; 8 F -*] 9&#'(#. "*] 9<&596c*W#%''\$.4'#B'V#\$9* - &#''. "+'E9)\$#7".8)+'BBXK[b*KC@`KKBG*

V# Y/\$\$"'RSTR'5#6/*9+'B#"'9)*'59%?+'#B'5+-C#4/6'J\$9*".69/#\$'=*"C*"9'H4%-*"' L".?%.9*'59%?*\$9'!.8*"'1A."?'*

 $. "=*S) . "*-G*] \& .7 < "G*>C?YG*aa 1 + "h(*O<'9*) + <&*# / / +&.6'*+ "* / %cb* R"5+<&.7#"7*V"(#`O+& "*V=$+5.5)*#"*(9%*] 9<&59*+,*k%'<'*] 9&#'(*+,*; .((%&`=.)*4.#"('Gc* 5*Q%.4/9/*&'?\X?f>[b*Yg`gdG*$

 $."=*S)."*-0*]\&.7<"0*>C?Y0*a-9\%*2.66/.&e'*+,*S#79(\%+<'*D+/\%"b*)\\8\%"=\%\&\%=*F.5e7\&+<"=*RH0\%5(.(#+"'*#"*(9\%*]9<\&59*+,*k\%'<'*]9\&#'(*+,*;.((\%\&^=.)*4.#"('0c*)5#6/#4#7+'#B'<*4/7/#$0'1'>\%."9*'4+'<*3/*A'g@X?[b*Bd`g?0*)$

 $. "=*S) . "*-6*] \& .7<"6*>C?Y6*aaV$+#=*(9.(*0+\&"+7\&.09#5*O.09#5*O.05)) \\ 06.)7\& +<"=cb*-\%.59#"7*A+&"+7\&.09#5*V_'(#"\%"5\%*#"*-9\%*] 9<\&59*+,*k\%'<'*] 9\& #'(*+,*;.((%\&`=.)*4.#"('6c*V'').6.4'<*&*."6)'#$'<*4/7/#$'KX>[b*?@``?\\6*$

 $3^{*}M. \ \$?''2Z'H. \ '''/\$7*''3^{*}. \ "=^{*}S \). \ "^{*}-6^{*}] \ \&.7<"'6^{*}>C?Y6^{*}aaP^{*}=+"h(*"\%\%=^{*}.") + (7<"'3^{*}L<'(^{*}.^{*}6++ecb^{*}S\%0\&'\%''(\#"7^{*}W. \ "9++=^{*}\#"^{*}4\%5<6.\&^{*}. \ "=^{*}S\%6\#7\#+<'^{*}W. \ 7.^{*}\#'\%'6c^{*}M^{*}\$'' . \ \$?'M. \ \&6\%4/\$/9/^{*}\&'? \ XY[b^{*}Y)?^{*}@CB6^{*}$

] &.7<" $3^{*}S$). "*-6*. "=* C*>C?BG*aW% "*N9+*9+6=* / +&%*%7.6#(.&#. "* .(#(<=%'*(+N.&=*N+ / %''*N+&e#''7*+<('#=%*(9%*9+ / %*#''*(9%* ! 4b*D9+*.&%*(9%)mc*()*' =% - . \$'! "#&8*690'1'2*#)% - .\$/&9'! *''&8*69/3*'BX?[b*?C`>BG*



$$\label{eq:constraint} \begin{split} & \texttt{C}^* > \texttt{C}^* aW + _\#\texttt{6}\#^*\#''7^*S . 5\%3^*] \ \texttt{6} . \ \texttt{'}3^* . \ \texttt{'}= & \texttt{8} \% \ \texttt{'} \ \texttt{'}= & \texttt{8} \% \ \texttt{'} \ \texttt{'}$$

6*>C?>6*aa-9.(h'*N9.(* / % ''*.&%*'<00+'%=*

*



3*1+<76. '*AG*459&+5e3*. "=*-%&#*k+*S%%'%G*>C?KG*a-&. "''%H<.6'h* 8%"=%&%=*A&%'%"(.(#+"'Gc*P"*O/B*'.&'!*"B#"-.\$6*0'1'X".-.9%"7/6.4'=.\$?C##IZ'R=#(%=*_)*]9.&6%'*R=76%)G*V'97.(%G*

 $. "=* 1 + <76. '*AG*459\&+5eG*>C??G*aaP(h'*P / O+\&(. "(*(+*49+N*)+<\&* []+6+\&'cb*] + <"(%\&^2 %(%\&+"+\& / .(#$%*R / _+=# / %"(*#"*.*W%(\&+O+6#(."*] + / / <"#()*] 9<\&596c* P"*E - C#?/*?'<*\&/&9. $6*0'H''*. I/$7'9) *'<%4*&P'V). 44*$7/$7'9) *'2#'' - &'%=#(%=*_)*] 9\&#'* F+_%6*. "=*4. / ."(9.*EN. "G*O. '9$#66%3* - %" "%' '%%b*Q. "=%&_#6(* ! "#$%&'#()*A&' 'G*$

:9)*"'<*&*."6)'!%C4/6.9/#\$&'FTeDb*

>C>K0*aV"*P"(%&.5(#+"#'(*V00&+.59*(+*W%=#.*S%0&%'%"(.(#+"'*+,*4%H<.6* O#+6%"5%0c*5+-C#4/6'J\$9*".69/#\$Z'

>C>>6*aS%\$#%N*+,**g*\$4/3.*C*4*'0/3*&0'\/#4*\$6*'.\$?'J?*\$9/9+'/\$'(".\$&7*\$?*'' 169/3/&-6c*V#\$9*-8#''."+'5#6/#4#7+'Y?XK[b*>K\`>BC6*

>C>?6*a-&."'*R&.'<&%6c*P"*51LE'E\$6+64#8*?/.'#B'(".\$&'59%?/*&3*%=#(%=*_)* V__#%*R6*8+6=_%&7*."=*8%"")*F%% /)"6*-9+<'."=*U.e'3*]Vb*4V8R*A<_6#5.(#+"'6*

>C>C a] +"(#"<#()*. "=*]9. "7%*#"*F%6#%, '*. "=*V((#(<=%'b*V*S%\$#%N*+,* <#61'#B'17*&0'5%C6%49%". 4'<*4/7/#%&'J?*\$9/9+'. \$?'!%C4/6': 8/\$/#\$'. - #\$7'd#%\$7' E3. \$7*4/6.4&')*k%&%/#.9*k0*]. '(6%0c*5+ - C#4/6'J\$9*". 69/#\$0*

>C>C(*a - %.59#"7*4) / _+6#5*P"(%&.5(#+"#' / b*V*S%\$#%N*+,*() *'5#6/.4'5*4B' .\$?'E3*"+?.+'O/B*'_)*E.(9)*]9.&/.^3*45+((*S6*2.&&#'3*."=*;%'6#%*P&\$#"%6c*5+-C#4/6' J\$9*".69/#\$'BKXB[b*g@g`g@d6*

>C>C%aS%\$#%N*+,*!"/3/4*7*'.9'!4.+'_)*2<7+*]%&+"`V".).6c*(*.6)/\$7' 5#6/#4#7+'B\XB[b*K@C`K@>6*

>C>CG*aS%\$#%N*+,*()*'(*&9.-*\$9&'_)*W.&7.&%(*V(N++=Gc*(*.6)/\$7' 5#6/#4#7+'B\XK[b*>BB`>B@G*

>C>CC*aS%\$#%N*+,*H#+':)'H#+0'["# - 'C#+&'9#' - *\$'C*'/\$&8/"*?'C+'cS' 6# - /\$7@#B@.7*'&9#''/*&'#B'&8#''9& - .\$P'. ''9/&9&P'8#4/9/6/.\$&P'*?%6.9#''&P'.\$?'&6/*\$9/&9&'_)*]6#,,* ;%%e6c*M*\$']'M.&6%4/\$/9/*&C*

>C?d0*aRH#'(%''(#.6*<&7%''5)*."=*W+ / %''(+<'*#''(%&.5(#+'''*\$#.*S.0*1&%./'b* V*S%\$#%N*+,*H4#A/\$'g80'<.8'X''*.-&'/\$'5#%9)'V*\$9''.4'_)*k++)+<''7*;%%0c*5+-C#4/6' J\$9*''.69/#\$'B>XK[b*B\\`B\d6*

$$\label{eq:constraint} \begin{split} & \mathbb{C}^{*} & \mathbb{C}^{*} & \mathbb{C}^{*} \\ &$$



45#%"(#,#5*4(<=)*+,*S%6#7#+"*V""<.6*W%%(#"7'3*V(6."(.3*8%+&7#.0**

 $\begin{array}{l} O./\$'12H2'M.9)*''\&3^* & ::=*S).:"^*-6^*]\&.7<"6^*>C?@6^*a-\&."'7\%"=\%\&*S\%6\#7\#+<'*A\%+O6\%h'*\\ RH0\%\&\#\%"5\%'*N\#(9^*]\#'7\%"=\%\&*S\%6\#7\#+<'*A\%+O6\%6c^*4+5\#\%()^*,+\&^*(9\%^*4+5\#.6^*45\#\%"(\#,\#5^*4(<=)^*+,*S\%6\#7\#+"*V"''<.6^*W\%\%(\#'7')^*V(6."(.3^*8\%+\&7\#.6^*))*,+\&^*(9\%^*4+5\#.6^*45\#\%"(\#,\#5^*4(<=)^*+,*S\%6\#7\#+"*V"''<.6^*W\%\%(\#'7')^*V(6."(.3^*8\%+\&7\#.6^*))*,\\ \end{array}$

 $\begin{array}{l} S) . "^{*} - 6^{*}] \& .7 < "3^{*} & 3^{*} . "=^{*}O./ $'12HZ'M.9) * "\&6^{*} > C?@6^{*}a D 9.(*=+\%'*(9\%*(\&."'7\%"=\%\&*')) \\ X'' + "[\&\%6\#7\#+<'*0+0<6.(\#+"*6++e^{*}6\#e\%*\#"*=\%/+7\&.09\#5^{*}(\%\&/'mc^{*}4+5\#\%())*,+\&^{*}(9\%*4+5\#.6^{*}45\#\%''(\#,\#5^{*}+4(<=))*,*S\%6\#7\#+"*V"''<.6^{*}W\%(\#''7')^{*}V(6."(.3^{*}8\%+\&7\#.6^{*})) \\ \end{array}$

 $3^*O./\$' 12HZ'M.9) *'' \&3^*." = *S)."^* - 6^*] \&.7 < "6^* > C?@6^*a - \&."'7\%" = \% \&^*S\%6\#7\# + <'^*A\% + 06\%h'*RH0\%\&\#\%"5\%^*N\#(9^*] \#'7\%" = \% \&^*S\%6\#7\# + <'*A\% + 06\%6c^*4 + 5\#\%()^*, +\&^*(9\%^*4(<=)^* +, *4) / _+6\#5^*P"(\%\&.5(\# + "*V" '' < .6^*W\%(\#'7')^* + \&.((6\%3^*D.'9\#''7(+"6^{**})))))$

3*S). "*-6*]&.7<"EMC/P<</MCID2>7-0.000Tj-0.0002Tc(.6*)Tj.V""<.6*W%%TT31#8()*-



 $\#"*5+/_.((\#"7*59\&+"\#5*9+/\%6\%'''\%''6c*V''+5\#.(\#+"*,+\&*V006\#\%=*."=*]6\#"\#5.6*4+5\#+6+7)*V""<.6*W\%(\#"7'3*W+_\#6\%3*V6._./.6**$

 $3^{*}V6\%H. "=\&.*] \ 62 \ 6^{*}O+N. \ e+N' \ e\#'. "=*S). "*-6^{*}] \ \&.7<"6^{*}>C?Y6^{*}aD9. (*\#,*7+=h'*). "*. ''9+6\% \ cb^{**}R6. +\&.(\#'7^{*}. "*P''(\%\&.5(\#+''\#'(*.00\&+.59^{*}(+*(9\%*4<0\%\&''.(<\&.66cc^{*}4+5\#\%())^{*},+\&^{*}(9\%*4(<=)^{*}). (+*(9\%*4<0\%\&''.(<\&.66cc^{*}4+5\#\%())^{*},+\&^{*}(9\%*4(<=)^{*}). (+*(9\%*4<0\%\&''.(<\&.66cc^{*}4+5\#\%())^{*},+\&^{*}(9\%*4(<=)^{*}). (+*(9\%*4(\otimes.6\%))^{*},+\&^{*}(9\%*4(<=)^{*}). (+*(9\%*4\otimes.6\%))^{*}, (+$

 $. "=*14./\$. '12HZ'M.9) * "d6 > C?Y6 * aS\%, 6\% H\#\$\%*S\%5\#0\&+5\#()b*R(9"+7\&.09\#5*R=<5.(\#+"*.'*.*]+66._+\&.(\#\$\%*]+"\$\%\&'.(\#+"6c^*]+<59*4(+"\%*4)/0+'\#</b*D\#"(\%\&*W\%\%(\#"7*+,*(9\%*4+5\#\%))*, +\&*(9\%*4(<=)*+,*4)/-+6\#5*P"(\%\&.5(\#+"3*4(6*A\%(\%\&'_<&73*J6+\&\#=.6*$

 $."=*S)."*-0*] \&.7<"0*>C?B0*aa - 9\%*_++_)^(\&.00\%=*L<"76\%cb*1\%, \#"\#"7*] + '('*+,A+\&"+7\&.09\#5*] + "'< /0(\#+"*\#"*-9\%*] 9<\&59*+, *k\%'<'*] 9\&\#'(*+,*;.((\%\&`=.)*4.#"('6c*4+5\#\%()*,+\&*'(9\%*45\#\%'',\#,5*4(<=)*+,*S\%6\#7\#+"*V"'<.6*W\%\%(\#"7'3*P''=\#.".0+6\#'3*P''=\#.".0*$

. "=*S) . "* - G*] & 7<"G*>C?BG*a - 9%*2 . 66 / . & '*+,*S#79(%+<'*D+ / % "Gc*

4+<(9%&"*4+5#+6+7#5.6*

a4+5#+6+7#5.6*J#5(#+"*:*W%"(.6*D%66*F%#"76c*P"\$#(%=*(.6e*=%6#5%&%=*,+&*!"#5%&'#()*+,*O+&(9*J6+&#=.3*k.5e'+"\$#66%3*J6+&#=.3*J.66*>C>>6*

 $aQ^{\#+6\%} "5\%3^{*}W. "9++=3^{*}. "=*V006^{\#}\%=*4+5^{\#+6+7}) Gc^{*}P" $\#(\%=*(.6e^{*}=\%6^{\#}\%\&\%=*,+\&^{*}].6^{\#},+\&^{"\#}.*A+6)(\%59" \#5^{*}4(.(\%^{*}!" \#\%\&'\#(.)3^{*}4."*;<\#'*U \#'0+3^{*}].6^{\#},+\&^{"\#}.3^{*}J.6^{6}>C>>0^{*}$

5*4*69*?'!%C4/6'0*69%"*&P'!.\$*4&P'.\$?'Y#"I&)#8&0'

A<_6#'9%=*.*'%&#%'*+,*,+<&*+O`%='*5+"5%&"#"7*W<'6# / *RH0%&#%"5%*#"*(9%*4+<(9%.'(*."=* 8%+&7#.*'0%5#,#5.66)*_.'%=*+"*."*%\$.6<.(#+"*'(<=)*+,*.*'+<(9%.'(%&"*P'6./#5*]+//<"#()* XO<_6#5.(#+"'*/.)*_%*.55%''%=*\$#.*.&59#\$%'*.(*()*'1%7%&9.'V)"#\$/64*[3*>CC\6*

\$%7<6.&*5+"(&#_<(+&*,+&*<u>NNN05+"=#(#+".66).55%0(%=05+/</u>3*."*.5.=%/#5*_6+7*,+&*'59+6.&'* +"*(9%*/.&7#"'*N#(9#"*(9%*.5.=%/)*X'%%*'#(%*,+&*O< 6#'9%=*O+'('[3*>C?Y*Z*>C?d0*

 $] +`, +<"=\%\&3*5+`\%=\#(+\&3*.=/ \#" \#'(\&.(+\&3*."=*\&\%7<6.\&*5+"'(\&\#_<(+\&*XN\#(9*1\&\%76\%H."=\&.*] G2G*O+N.e+N'e#3*J6+&\#=.*4(.(\%*!"\#S%\&'\#()3*."=*.''\#'(."(*\%=\#(+\&*;.#"*VGFG*W.(9%\&'3*I')*5, 0)))) \\ = (\%, 0) + (\%$

>C?Y*Z*>C>?6**

 $V = / #" #'(\&.(+\&3^{*}) = #(+\&3^{*}."=*\&\%7 < 6.\&*5 + "(\&#_<(+\&*,+\&*'' + / <'#50N + \&=0\&\%'' + 05 + / 3^{*}."*.5. = \% / #5^{*} = 6+7^{*'}O+"'+\&\%=*_)*(9\%^{*}4 + 5\#\%()^{*},+\&*(9\%^{*}4(<=)^{*}+,*4) / _+6\#5^{*}P''(\&.5(\#+"*O\&+5\#=\#"7^{*}4) / _+6\#5^{*}P''(\&.5(\#+"*O\&+5\#=\#"7^{*}4) / _+6\#5^{*}P''(\&.5(\#+"*O\&+5\#=\#"7^{*}4) / _+6\#5^{*}P''(\&.5(\#+"*O\&+5\#=\#"7^{*}4) / _+6\#5^{*}P''(\&.5(\#+"*O\&+5\#+2\%) / _+6\#5^{*}P''(\&.5(\#+"*O\&+2\%) / _+6\#5^{*}P''(\&.5(\#+2\%) / _+6\#5^{*}P'')(\&.5(\#+2\%) / _+6\#5^{*}P''))(\&.5(\#+2\%) / _+6\#5^{*}P'')(\&.5(\#+2\%) / _+6\#5^{*}P''))(\&.5(\#+2\%) / _+6\#5^{*}P'')))(\&.5(\#+2\%) / _+6\#5^{*}P''))(\&.5(\#+2\%) / _+6\#5^{*}P'')))(\&.5(\#+2\%) / _+6\#5^{*}P'')))(\&.5(\#+2\%) / _+6\#5^{*}P'')))(\&.5(\#+2\%) / _+6\#5^{*}P''))))$

!%C4/6'56)#4. "&)/8b*

 $2 + <'\#''7^*. "=*!\&_. "*1\%\%6+0 / \%"(*f^*O\%\#79_+\&9++=*4(._\#6\#^{-}.(\#+"*A\&+7\&. /*F+.\&=*+,*) + 2\%6(-\&) + 2\%$

!%C4/6'5*"3/6*0'

O. #7. (#"7*S%6#7#+"*."=*A+6#(#5'6*4+<(9%&"*4+5#+6+7#5.6*4+5#%()*V""<.6*W%%(#"7'3*O%N*U&6%."'3*;+<#'#.".6*

 $G^* > CCdG^* aS \% 6 \# 7 \# + <'* : \% = \% \&'*V55 + <''('* + .*)$

W%(&+0+6#(."*]+//<"#()*]9<&59b*V"*P"(%&.5(#+"#'(*V".6)'#'6c*V/%."*4+5#+6+7#5.6*)

V''+5#.(#+"*V""<.6*W%%(#"7'3*V(6."(.3*8%+&7#.6*

S + **kG*1 + 3*F&#. **4(.&e'3*. **=*



<224@

O+&(9*].&+6#".*D#6/#"7(+"3*J.66*>C?g6*

a! "=%&'(."=#"7*F#1*."=*-&."'q*%HO%&#%"5%'*#"*'+5#+6+7) &c*1%6#%&%=*<0+"*#"\$#(.(#+"*,+&*5+<&'%'*.(*!"#%&'#()*+,*P66#"+#'3*]9#5.7+p*!"#%&'#()*+,*O+&(9*J6+&#=.p*."=*!"#%&'#()*+,*P66#"+#'3*]9#5.7+p*!"#%&'#()*+,*O+&(9*J6+&#=.p*."=*!"#%&'#()*+,*P66#"+#'3*]9#5.7+p*!"#%&'#()*+,*O+&(9*J6+&#=.p*."=*!"#%&'#()*+,*P66#"+#'3*]9

>C?\G*

 $a - \% . 59 \# "7*O + "\&\%6 \# 7 \# + <'*A\% + 06\% * _ + <(*F \# 1*. "=* - \&. "'7\% "=\%\&*RHO\%\&\#\% "5\%'6c*1\%6 \# \%\&\% = * <0 + "*\# "$\# (.(\# + "*.(*(9\%)])\% "(\&.6*J6 + \&\# = .*2 < / . "#'(*V'' + 5\# .(\# + "*40\&\# "7*W\%\%(\# "73*40\&\# "7*W\%\%)) = * <0 + "*# "$#(.(\# + "*.(*(9\%))) = * <0 + ..., * <0 + ..., * <0 + ..., * <0 + ..., * <0 + ..., * <0 + ..., * <0 + ..., * <0 + ..., * <0 + ..., * <0 + ..., * <0 + ..., * <0 + ..., * <0 + ..., * <0 + ..., * <0 + ..., * <0 + ..., * <0 + ..., * <0 + ..., * <0 + ..., * <0 + ..., * <0 + ..., * <0 + ..., * <0 + ..., * <0 + ..., * <0 + ..., * <0 + ..., * <0 + ..., * <0 + ..., * <0 + ..., * <0 + ..., * <0 + ..., * <0 + ..., * <0 + ..., * <0 + ..., * <0 + ..., * <0 + ..., * <0 + ..., * <0 + ..., * <0 + ..., * <0 + ..., * <0 + ..., * <0 + ..., * <0 + ..., * <0 + ..., * <0 + ..., * <0 + ..., * <0 + ..., * <0 + ..., * <0 + ..., * <0 + ..., * <0 + ..., * <0 + ..., * <0 + ..., * <0 + ..., * <0 + ..., * <0 + ..., * <0 + ..., * <0 + ..., * <0 + ..., * <0 + ..., * <0 + ..., * <0 + ..., * <0 + ..., * <0 + ..., * <0 + ..., * <0 + ..., * <0 + ..., * <0 + ..., * <0 + ..., * <0 + ..., * <0 + ..., * <0 + ..., * <0 + ..., * <0 + ..., * <0 + ..., * <0 + ..., * <0 + ..., * <0 + ..., * <0 + ..., * <0 + ..., * <0 + ..., * <0 + ..., * <0 + ..., * <0 + ..., * <0 + ..., * <0 + ..., * <0 + ..., * <0 + ..., * <0 + ..., * <0 + ..., * <0 + ..., * <0 + ..., * <0 + ..., * <0 + ..., * <0 + ..., * <0 + ..., * <0 + ..., * <0 + ..., * <0 + ..., * <0 + ..., * <0 + ..., * <0 + ..., * <0 + ..., * <0 + ..., * <0 + ..., * <0 + ..., * <0 + ..., * <0 + ..., * <0 + ..., * <0 + ..., * <0 + ..., * <0 + ..., * <0 + ..., * <0 + ..., * <0 + ..., * <0 + ..., * <0 + ..., * <0 + ..., * <0 + ..., * <0 + ..., * <0 + ..., * <0 + ..., * <0 + ..., * <0 + ..., * <0 + ..., * <0 + ..., * <0 + ..., * <0 + ..., * <0 + ..., * <0 + ..., * <0 + ..., * <0 + ..., * <0 + ..., * <0 + ..., * <0 + ..., * <0 + ..., * <0 + ..., * <0 + ..., * <0 + ..., * <0 + ..., * <0 + ..., * <0 + ..., * <0 + ..., * <0 + ..., * <0 + ..., * <0 + ..., * <0 + ..., * <0 + ..., * <0 + .$

a! "=%&'(."=#"7*F#1*."=*-&."'q*%H0%&#%"5%'*#"*(9%'+<(96c*1%6#%&%=*<0+"*#"\$#(.(#+"*,+&*)) + (**,*) +

a;%''+"'*,&+/*.*;#,%*]+<&'%*49.0%=*_)*Q#+6%"5%6c*1%6#\$%&%=*<0+"*#"\$#(.(#+"*(+*.* 7&.=<.(%*5+<&'%++"*#"%i<.6#(#%'*.(*(9%*!"#\$%&'#()*+,*]%"(&.6*J6+&#=.3*4<///%&*>C?\6*

a; %.&''#''7*,&+ / *(9%*%HO%&#%''5%'*+,*_#1*. "=*(&. ''*0%+O6%*#''*(9%*'+<(96c*1%6#\$%&%=*<0+''* #''\$#(.(#+''*.(*(9%*!''#\$%&'#()*+.*O+&(9*J6+&#=.3*J.66*>C?\6*

40&#"7*>C?dG*

a4+5#+6+7)*."=*(9%*5.66*+,*(9%*6#(%&.&)*#"*; 8 F - I*4(<=#%'6c*P"\$#(%=*,+&*=%6#%&)*.(*P"=#.".*)*((.%*!"#%&'#())*J.66*>C?d6*)

a ! "=%&'(. "=#"7*; 8 F - I *%H0%&#% "5%*#"*(9%*4+<(96c*P"\$#(%=*,+&*=%6#\$%&)*.(* ! "#\$%&'#()*+,* O+&(9*J6+&)=.3*J.66*>C?d6*

a; 8 F - I *O.&&.(#\$%'*: *RHO%&#%"5%6c*P"\$#(%=*,+&*=%6#\$%&)*.(*P"=#.".*4(.(%*!"#\$%&'#()3*J.66* >C?dp*40&#"7*>C>C6*

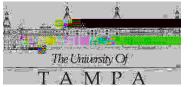
a - 9%*1#\$%&'#()*+,*-&."'7%"=%&*RH0%&#%"5%6c*P"\$#(%=*,+&*=%6#\$%&)*.(*(9%*!"#\$%&'#()*+,* -./0.3*40&#"7*>C>?6*

a; $\& \" #''7^{*}(+*!06\#,(*."=*4<00+\&(*(9\%*;8F-I1*]+ / <"#()6c*P"$#(\%=*,+&*=\%6#$%\&)*.(*(9\%*)*(9\%*)*(*(9\%*)*()*+,*-. / 0.3*40\&#''7*>C>?p*40\&#''7*>C>>6*$

 $\begin{array}{l} a - \% . 59 \# "7*V006 \# \% = *4 + 5 \# + 6 + 7) \ 6 c^{*}P" \ \# \# \% & : \# & :$

- . / 0.3*J6+&#=.3*J.66*>C>>6* aV<(+%(9"+7&.09#5*; #,%6c*P"\$#(%=*;%5(<&%*.(*(9%*U %&6#"*]+66%7%3*U %&6#"3*U9#+3*40&#"7*

a459+6.&'9#0*."=*V5(#\$#' / 6c*P"\$#(%=*A."%6*A&%'%"(.(#+"*.(*(9%*!"#\$%&'#()*+,*-./0.3* -./0.3*J6+&#=.3*J.66*>C>>6*





 $\begin{array}{l} aA\&+__{6\%} / .(\#^{\#}"7^{*}(9\%^{*}] \ \#'7\%"=\%\&^{*}J+<"=.(\#+"'*+,*]+"(\% / 0+\&.\&)^{*}S \ \%6\#7\#+"^{*}."=^{*}O+"\&\%6\#7\#+"^{*}C^{*} \\ ! \ "\#S\%\&' \ \#()^{*}+,^{*}P66\#"+\#'^{*}] \ 9\#5.7+^{*}1 \ \%O.\&(/ \ \%''(^{*}+,^{*}4+5\#+6+7)^{*}] \ +66+i < \# < / \ ^{*}4\%\&\#\% \ '3^{*}4O\&\#'' \ 7^{*} \\ >C?@G^{**} \end{array}$

aS%6#7#+"b*D9%&%*=+*N%*5+ / %*,&+ / *A."%66c* ! "#\$%&'#()*+,*-. / 0.3*]%"(%&*,+&*J.#(9*."=* Q.6<%'3*40&#"7*>C?@6**

a]+"(%/O+&.&)*S%6#7#+"*."=*(9%*]#'7%"=%&#"7*+,*S%.6#()&c*2+"+&'*A&+7&./*!"#\$%&'#()*]+66+i<#</*4%&#%'3*J.66*>C?Y6*

 $aO.\$\#7.(\$"7*8\&.=<.(\%*4(<=)\&c*!"\$\%\&'\sharp()*+,*4+<(9*J6+\&\#=.*1\%0.\&(/\%"(*+,*4+5\#+6+7)3*]J.66*>C?Y6*]$

 $aS\%6\#7\#+"*."=*8\%"=\%\&^*A."\%66c*!"\#\%\&'\#()*+,*-./0.3*]\%"(\%\&^*,+\&^*J.\#(9*."=*Q.6<\%'3*40\&^{\#}"7*>C?Y6*$

 $a4 + 5\#.6^{*}k < '(\#5\%6c^{*}! "\#\%\&'\#()^{*}+, *-. / 0.3^{*}F + ""\%\&^{*}; \%. = \%\&'9\#0^{*}A\& + 7\&. / 3^{*}40\& \# "7^{*} > C?Y6^{*}$

aS%6#7#+"*."=*4%H<.6#(#%'b*4%H<.6*U&#%''(.(#+"*A."%60c*!"#%&'#()*+,*-./0.3*]%''(%&*,+&*J.#(9*."=*Q.6<%'3*40&#'7*>C?Y0*

 $aa D + \&e^{#(?7\#\&frc^{*}; 8 F - *] 9\&^{+}(#. "'*0\&^{+}=<5(\#+"*+,*9+/+"+\&/.(\#\#()*\#"*1\&.7*I<\%"*F\#"7+6c^{*}:"\#\%\&'#()*+,*4+<(9*J6+\&^{\#}=.3*1\%0.\&(/\%"(*+,*4+5\#+6+7)*]+66+i<\#</*4\%\&^{\#}`*5+`'0+"'+\&\%=*)*(9\%*D+/\%"h'*4(<=\#\%'*A\&+7\&./3*J.66*>C?B6*$

 $\begin{array}{l} a4+ / \$N9\%\&\%^*F\%(N\%\%''^*R\$.''7\%6\#5.6^*.''=^*I<\%\&b^*4\%H<.6^S\%6\#7\#+<'*P=\%''(\#()^*D+\&e\ s\ .\ /\ +''7^*\ ;\ 8\ F\ -\]\ 9\&\#'(\#.''\ c^*\ !\ ''\#\$\%\&'\#()^*+,^*-.\ /\ 0\ .\ ^2+''+\&'^*A\&+7\&.\ /\ *\ !\ ''\#\$\%\&'\#()^*\]\ +66+i<\!\!\#</\ ^4\%\&\#\%'3^*\ 40\&\#''7^*>C^2BG^* \end{array}$

*M**?/. '*J*\$3#43* - *\$9b*

P"(%&\$#%N%=*,+&*.&(#56%*+"*a-%.59#"7*4%H*R=<5.(#+"*,+&*]+66%7%*4(<=%"('c*,+&*(9%* ! "#\$%&'#()*+,*-. / 0.*'(<=%"(*"%N'0.0%&3*>C?d0*

 $\begin{array}{l} P''(\&\&\#N\&=^*,+\&^*.\&(\#56\%^+"^*-\%.59\#''7^*F\#3^*-\&^*''3^*V5\%3^*E\#''e3^*P''(\&\&'\%H3^*."=^*A+6)^*(+0\#5'^*,+\&^*') \\ (9\%^*D\%_-'(\&\&^*!"\#\$\%\&'\#()^*'(<=\%''(*''\%N'0.0\%83^*4\%0(\%/_\%\&^*C?d6^*)) \\ \underline{9((0bffN\%_-'(\&\&L+<\&''.605+/f>C?dfCdf?df0\&+,\%''+\&^*O<_6\#'9\%')^++e^+"^67_(i^*\&\%6.(\#+''')9\#0'f^*) \\ \underline{9((0bffN\%_-'(\&\&L+<\&''.605+/f>C?dfCdf?df0\&+,\%''+\&^*O<_6\#'9\%')^++e^+"^67_(i^*\&\%6.(\#+''')9\#0'f^*) \\ \underline{9(0bffN\%_-'(\&\&L+<\&''.605+/f>C?dfCdf?df0\&+,\%''+\&^*) \\ \underline{9(0bffN\%_-'(\&\&L+<\&''.605+/f>C?dfCdf?df0\&+,\%''+\&^*) \\ \underline{9(0bffN\%_-')^*} \\ \underline{9(0bffN\%_-'(\&\&L+<\&''.605+/f>C)^*) \\ \underline{9(0bffN\%_-')^*} \\ \underline{9(0bffN\%_-$

P''(&&#N%=*+''*a2+/%6%''*RH0%%%''5%*#''*V/%%%5.c*,+&*!''#%%%''#()*+,*-./0.*'(<=%''(*=+5</%''(.&)*+''*a2+/%6%'''%''3c*>C?K6*





. 0. &(/ %''('*. "=*(9%*N.)'*'<59*. &&. "7% / %''('*/.)*+&*/.)*''+(*6%''%''*5+'(*#''*+\$%&.66*%,,+&('* (+*5+/_.(*9+/%6%'''%''*#''*(9%*-./0.*F.)*S%7#+"G*

>CC@*Z*>CC\G*aR\$.6<.(#"7*W<'6#/*%HO%&#%"5%*#"*8%+&7#.* 5+//<"#(#%'6c*1%(.#6'b*!"=%&7&.=<.(%*''%%='*.''%''/%"(*&%'%.&59*O&+L%5(*%HO6+&#"'7* (&%.(/%"(*+,*W<'6#/*V/%."'*#"*8%+&7#.3*."=*W<'6#/*&%.5(#+"'*(+*'<59*(&%.(/%"(G*

V#%"&*&':BB*"*?0'

I < .6# (.(# % S % '% .& 59 W % (9+='*4+5#+6+7#5.6*-9%+&)*S.5%*."=*R(9"#5*S%6.(#+"'*) $-9\%^{*}4+5\#+6+7)^{*}+.*8\%''=\%\&^{*}$ P''(& + = <5(# + "*(+*4+5# + 6+7))*)4+5#.6*A&+ 6% / '* 4+5#.6*A')59+6+7)*+,*8&+<0'*]6#"#5.6*."=*]+<"'%6#"7*4+5#+6+7)* 4+5#+6+7)*+,*1%\$#."5%* 4+5#+6+7)*+.*40+&(*

V006#=*4+5#+6+7)* J. / #6#% '*#''* 86+_.6*A%&'0%5(#\$%* W% = #5.6*4 + 5# + 6 + 7)*4%H<.6*4< 5<6(<&%'*(9&+<79*J#6/* 4+5#+6+7)*+.*4%H<.6#(#%'* 4+5#+6+7)*+,*S%6#7#+"* 19#6=9++=*4+5#.6#^.(#+"* 4+5#+6+7)*+,*W<'#5* F6.5e*; #\$%'*:*-&."'*F.(9&++/'* 4+5#+6+7#5.6*A&.5(#5%*RH0%&#%"5%*

g \$/3*"&/9+'#B'(. - 8. 'FRSTR'l'! "*&*\$9D'

- J.5<6()*V=\$#'+&*,+&*! . / 0.*A&#=%*X>C>>*Z*A&%'%"([6* ! - *O.6<% '*(+*V5(#+"*-.'e*J+&5%*+"*1#\$%&'#()3*Ri<#()3*."=*P"56<'#+"*X>C>C*Z*>C>?[6* 19.#&3*F%''59 / .&e#''7*4 < 5 + / / #((%)*)
- - 2%.=*D&#(%&3*-.'e*J+&5%*R\$.6<.(#+''*S%O+&(*
- 1#&%5(+&*+,*O.(#+".66)*V55&%=#(%=*V006#%=*4+5#+6+7)*O&+7&. / *X>C?Y*Z*A&%'%"([6*]+`V<(9+&*:*]+`2%.=*+,*4%6,*4(<=)*,+&*4<55%'',<6*S%`V55&%=#(.(#+"*>C?YZ>C?g*
- V<(9+&*:*2%.=*+,*4%6,*4(<=)*,+&*S%`V55&%=#(.(#+"*>C>>*Z*A&%'%"(*
- J.5<6()*/%/%&*+"*D+/%"h'*4(<=#%'*V=\$#'+&)*F+.&=*X>C?*Z*>C>Cp*>C>>*`A&%'%"([*
- J.5<6()*/%/_%&*,+&*!"#\$%&'#()*F.55.6.<&%.(%*]+//#((%%*X>C?*Z*>C>?[*
- J.5<6()*/%/%&*,+&*!"#\$%&'#()*1#\$%&'#()*]+//#((%%*X>C?B*Z*>C?\p*>C>?*Z*A&%'%"([6* J.5<6()*&%O&%'%''(.(#\$%*,+&*O&%'%''(.(#+''*,&+/*(9%*!-*J.5<6()*1#\$%&'#()*4<&\$%)* $X > C?g[G^*]$
 - J.5<6()*&%O&%'%''(.(#\$%*,+&*O&%'%''(.(#+'''*,&+ /*(9%*!-*!''=%&7&.=<.(%*1#\$%&'#()* 4<&\$%)*X>C?@[G*
- 1+`:%.=*+''*1%'#7''*+.*!-*J.5<6()*.''=*!''=%&7&.=<.(%*1#\$%&'#()*4<&\$%)'*X>C?@[6* J.5<6()*6#.#'+"*,+&*4+5#+6+7)*V=L<"5(*P"'(&<5(+&'*X>C?B*Z*>C?Y[6*
- J.5<6()*k=7%*,+&*V""<.6*]+66%7%*+,*4+5#.6*45#%"5%'3*W.(9%/.(#5'3*."=*R=<5.(#+"*
 - ! "=%&7&.=<.(%*S%'%.&59*]+",%&%"5%*X>C?B[6*

P"\$#(%=*5&#(#5*,+&*. "*V<(9+&*W%%('*]&#(#5*'%''#+"*,+&*58/"/9&'<*k#/6*0'W.bb'.\$?'1 - *"/6.\$'

P"\$#(%=*0."%6#'(*,+&*=#'5<''#+"*+"*a!'#"7* / <'#5*#"*(9%*(%.59#"7*+,*'+5#+6+7)3c*>C?@*W#=* 4+<(9*4+5#+6+7#5.6*V''+5#.(#+"*V"'<.6*W%%(#"73*]9.&6%'(+"3*4+<(9*].&+6#".0**

]+`+&7. "#^%=*.*(9% / .(#5*0. "%6*'%' '#+"*%"(#(6%=*aD &#(%*D 9%&%*P(*2 <&('b*1 %.(93*1))#"73*."=* 8 &#%, c*N#(9*1 &6*V6%H."=&.*] 62 6*O+N.e+N'e#3*>C?g*4+<(9%&"*4+5#+6+7#5.6*4+5#%()* V""<.6*W%%(#"7*8 &%%"\$#66%3*4] 6*

 $\begin{array}{l} U\&7."\#^{\%}=^{*}."=^{*}9+'(\%=^{*}.^{*}(9\%\ /\ .(\#5^{*}\%''\#+"^{*}.'*0.\&(^{*}+,^{*}N\#'''\#''7^{*}(9\%^{*}4\,D\,4^{*}R.\&6)^{*}8\,\%''=\%\&^{*}459+6.\&^{*}VN.\&=^{*}+"^{*}a-\&."'7\%''=\%\&^{*}RHO\%\&^{\#}\%''5\%^{\#}"^{*}4+5\#+6+7\,)\,3c^{*}>C^{2}g^{*}4+<(9\%\&''^{*}4+5\#+6+7\#5.6^{*}4+5\#)^{*}V''''<.6^{*}W\%\%(\#''73^{*}8\&\%'')^{*}B^{*}66\%3^{*}4\,]\,0^{*} \end{array}$

 $A. "\%6*1 \#'5<''. "(*,+\&*aF\%) + "=*F\#".\&\#\%'b*4\%H3*8\%''=\%\&3*. "=*4\%H<.6\#()*S\%'\%.\&59*A. "\%63c* >C? \times 4+<(9\%\&"*4+5\#+6+7\#5.6*4+5\#\%()*V'''<.6*W\%\%(\#''73*O\%N*U\&6\%. "'3*; +<\#'#. ".6*$

 $\begin{array}{l} U\&7. "\#^{-} . "=^{9} + (\%=^{*}. (9\% / . (\#5^{*} \% ' \# + "^{*} aS\% '\% . \&59^{*}. "=^{*} - \% . 59 \# "7^{*}. _ +<(^{*}O+ "_{_} \# " . \&)^{*} \\ . "=^{*} - \&. "'7\% "=\% \&^{*}4 + 5 \# + 6 + 7) 3c^{*} > C? \setminus ^{*}4 + <(9\% \& "^{*}4 + 5 \# + 6 + 7 \# 5 . 6^{*}4 + 5 \# \% ()^{*}V" "<.6^{*}W\% (\# "73^{*}O\% N^{*} U\&6\% . "'3^{*}; +<\# ' \# . ".6^{*} \end{array}$

P"\$#(%=*1#'5<''."(*,+&*(9% / .(#5*0."%6*+"*a-&."'*."=*O+"_#".&)*4%H<.6#(#%'3c*>C?* V / %."*4+5#+6+7#5.6*V''+5#.(#+"*V"'<.6*W%%(#"73*A9#6.=%609#.3*A%"'')6\$."#.6*

 $U\&7. "\#^{\&*}, +\&*0. "\%6^{*} + "*aO + "_{\#}".\&) *RH0\%\&\#\% "5\% '*\#"*4 + 5\#\%() 3c^{*} > C?d^{*}4 + <(9\%\&"*4 + 5\#+6 + 7\#5.6*A + 5\#\%() *V"" < .6*W\%\%(\#"73*V(6. "(.3*8\%+27\#.6*A + 5\#)) *C?d^{*}A + 5\#\%() *V"" < .6*W\%\%(\#"73*V(6. "(.3*8\%+27\#.6*A + 5\#)) *C?d^{*}A + 5\#\%() *C$

 $\begin{array}{l} U\&7. "\#\%\&*."=*\#"\$\#(\%=*=\#'5<''."(*,+\&*0."\%6*+"*a1\#\$\%\&'\#()*\#"*4\%H<.6*S\%6.(\#+"'9\#0'3c*>C?d*4+<(9\%\&'*4+5\#+6+7\#5.6*4+5\#\%()*V'''<.6*W\%(\#''73*V(6."(.3*8\%+\&7\#.6*))*C*)) \end{array}$

 $P"$#(\%=*A."\%6#'(*+"*a2+N*(+*A<_{6}#'9*)+<\&*_++e3c*>C?d*V''+5#.(#+"*,+\&*V006#\%=*."=*16#"#5.6*4+5#+6+7)*V""<.6*W\%\%(#"73*A+\&(6."=3*U\&\%7+"6*$

 $\begin{array}{l} U\&7."\#\%\&^*, +\&^*0."\%6^*+"^*a ; 8 \ F - *4 + < (9\%\&"^*RH0\%\&^{\#}S\%3c^* > C > C^*W \# = *4 + < (9^*4 + 5\# + 6 + 7\# 5.6^*V' + 5\#.(\# + "^*V''' < .6^*W\%\%(\# ''73^*U''6\# ''\%6^*)) \\ \end{array}$

