S

( )&&%*%'-$G'e%2&#%'f00J..')0'O-22-"'( )&&%*%\:'-_-"G%G'5>4d'
'
Y%&&)_2F#,@#$@L%2#G%$E%'-.'.F%'fM%"/-$$'(%$.%"'0)"'<GQ-$E%G'9.JG#%2:'.F%'P$#Q%"2#.3')0''
;)_-:'9,"#$*'5>4C'
'
9F)".@T%"/'Y%&&)_2F#,I'<_-"G%G'M3'.F%'N)"G-$'(%$.%"'0)"'.F%'<GQ-$E%G'9.JG3')0'LJ22#-'-.''
b%_'h)"8'P$#Q%"2#.3:'] -"EF@<,"#&'5>46'
'
9J/ / %"'9.#,%$GI'<_-"G%G'M3'.F%'b -.#)$-&'U$G)_/ %$.'0)"'.F%'1 J/ -$#.#%2:'5>4='
'
Y"-$8&#$'L%2%-"EF' ! '"-$.I'<_-"G%G'M3'.F%'<//%"#E-$'7F#&)2),F#E-&'9)E#%.3:'5>4='
'
U/ %"*#$*'9EF)&-"'L%2%-"EF' ! '"-$.I'<_-"G%G'M3'.F%'<22)E#-.#)$')0''.F%'<GQ-$E%/ /%$.')0''
^-&.#E'9.JG#%2:'5>4B'
'
TJE8%"@( )F%$'+#22%".-.#)$'$'7"#Z%:'1)$)"-M&%'] %$.#)$':'5>>dI'<$'-$$J-&',"#Z%'0)"'"S-$''

- # ($%''% (- %+) (. +M # " R&P # ! +! " %&% (0) 0 ' # (&+:&' (- %+STUVA+
'

STF%'i ( )$Q%"2-.#)$c'-2'-$';$2."J / %$.')0'9)Q#%.'7) _%"IX'] #G_%2.'LJ22#-$'1#2.)"3'W)"82F),:''
        P$#Q%"2#.3')0'b)."%'+- / %:'< ,"#&'5>5?I'
'

STF%'i ( )$Q%"2-.#)$c'-2'-$';$2."J / %$.')0'9)Q#%.'7) _%"ℝ'a ! ^'i (F-.2c'#$'TF%#"'^")-G%"' ( )$.%V.IX''
        a ! ^'<"EF#Q%2'W)"82F),'F%&G')$&#$%'0") / '.F%'P$#Q%"2#.3')0'] %&M)J"$%'[<J2."-&#-\:'
        Y%M"J-"3'5>55I'
                '

S^#*'k J%2.#)$2:'9 / -&&'<$2_%"2ℝ'L%Q#.-&#Z#$*'.F%';$.%" / %G#-.%'1#2.)"3' ( )J"2%IX''< / %"#E-$''
        1#2.)"#E-&'<22)E#-.#)$)$'_%M#$-"')$'STF%'YJ.J"%'2')0'1#2.)"3'0") / '.F%'e#M%"-&'<".2' ( )&&%*%'
        7%"2,%E.#Q%:X'N-$J-"3'5>54I'
'

SL%E#G#Q#Q#Q#2 / :'7") ,F3&-V#2:'-$G'.F%'a ! ^IX'7-,%"0)"'STF%'7)&#.#E-&'7)&#E%'-$G'.F%'9)Q#%.'932.% / / ℝ''
        ;$2#*F.F.2'0") / 'b%_&3'f ,%$%G'a ! ^'<"EF#Q%2'#$'.F%'Y)" / %"'9)Q#%.'L%,JM&#E2:X')"#*#$-&-&3
        ,&-$$%G'-2'-$'#$.%"-E.#Q%'E)$0%"%$E%),-,%"'0)"'.F%)"*-$#Z#$*' ,"#$E#,&%')0'.F%'E)$0%"%$E%)$
)$&#$%'E)$0%"%$E%1_%M#$-"'[2,)$$2)"%G'M3'.F%'<22)E#-.#)$')0'9&-Q#E'E:'U-2.'.'UJ"),%-$,%-$-$G
        UJ"-2#-'9.JG#%2\'M%E-J2%')0'.F%'E)")$-Q#"J2, -$G% / #E:'< ,"#&'5>5>I'
'

STF%'a ! ^ℙ2'9."J**&%'_#.F'<$.#@9)Q#%.'<E.#Q#.3'- /)$*'h)J.F'#$$'.F%'^-&.#E'L%,JM&#E2IX''
        93 / ,)2#J / ')'$'9-a ! ^'9J"Q%#&&-$E%'#$'.F%'9)Q#%.'^-&.#E'L%,JM&#E2R'+)EJ / %2.-"3'
        UQ#G%$E%'-$G' ( ),#$*,#.F'.F%'7-2.:X'h -&%'P$#Q%"2#.3:'Y%M"J-"3'5>5>I'
'

STF%'a ! ^'-2'O#E%'9nJ-GℝℝR'35*+&),K(&K,$-$G'.F%'9."J**&%'_#.F'<$.#)E)$E%-$'F-Q#)"'"#$'^-&.#E'7)")".''
        (#.#%2IX'TF%'

] %-2J"%2c'#$'.F%'^-&.#E'L%, JM&#E2IX' ( )$0%"%$E%')$'^-&.#E'9.JG#%2'#$'UJ") ,%:'.F%'
P$#Q%"2#.3')0'e-.Q#-:'NJ$%'5>4CI'

'

S<'9)Q#%.'TF%)"3')0'^")8%$'W#$G)_2R'7") ,F3&-E.#E'7)&#E#$*'-$G'.F%'a ! ^c2'9."J**&%'_#.F''
7)&#.#E-&'P$"%2.'#$'.F%'^-&.#E'9.-.%2IX'] #G_%2.'LJ22#-$'1#2.)"3'W)"82F),:'b)".F_%2.%"$'
P$#Q%"2#.3:'] -"EF'5>4CI'

'

S7") ,F3&-E.#E'7)&#E#$*'-$G'.F%'a ! ^c2'9."J**&%'_#.F'Y)"%#*$'$';$0&J%$E%'#$'e#.FJ-$#-:'4A=A@'
4AA4IX'O#&$#J2'93 / ,)2#J / ')$'e-.%'9)Q#%.'-$G'7)2.@9)Q#%.';22J%2'[O#&$#J2:'e#.FJ-$#-\:'
+%E% / M%"'5>46I'

'

S7") ,F3&-E.#E'7)&#E#$*'-$G'.F%'a ! ^c2'9."J**&%'_#.F.F%'^-&.#E'+#22#G%$.'])Q% / %$.'#$$'.F%'4AC>2''
-$G'4Ad>2IX'TF%'<22)E#-.#)$'0)"'9&-Q#E:'U-2.'UJ") ,%-$:'-$G'UJ"-2#-$'9.JG#%2'-$$J-&'
E)$Q%$.#)$:'b)Q% / M%"'5>46I'

'

S7") ,F3&-E.#E'7)&#E#$*'-$G'.F%'a ! ^c2'9."J**&%'_#.F.F%'^-&.#E'+#22#G%$.'])Q% / %$.'#$$'.F%'4AC>2''
-$G'4Ad>2IX'<22)E#-.#)$:'-$G'9&-Q#E:'U-2.'UJ") ,%-$:'-$G'UJ"-2#-$'9.JG#%2'E)$Q%$.#)$:'.F%'
P$#Q%"2#.3')0'7%$$23&Q-$#-:] -3'5>46I'

'

S<'9)Q#%.'TF%)"3')0'^")8%$'W#$G)_2R'7") ,F3&-E.#E'7)&#E#$*'-$G'.F%'a ! ^c2'9."J**&%'_#.F''
7)&#.#E-&'P$"%2.'#$'.F%'^-&.#E'9.-.%2IX' ( )&&)nJ#J / ','%2%$.-.#)$'$)'$'-'.F%'N)"G-$'(%$.%"'0)"''
.F%'<GQ-$E%G'9.JG3')0'LJ22#-:'b %_'h)"8'P$#Q%"2#.3:'<,"#&'5>46I'

'

S7") ,F3&-E.#E'7)&#E#$*'-$G'.F%'a ! ^c2'U,#G% / #E% /)E%)*3')0'+#22%.'#$$'.F%'^-&.#E'9.-.%2IX''
;$.%"$-.#)$-&'<&&#-$E%'"'23 / ','2#J / ')$'.F%'ST"-$20)" / #$*'^)2.-2)E#-&#2.'X'<"#Z)$-'9.-.%'P$#Q%"2#.3:'
f E.)M%"'5>4=I'

'

S( )$.-#$$#$$*'.F%'Y)"%#*$'$';$0&J%$E%'TF"%-.'TF%'a ! ^c2'P2%')0'35*+&),K(&K,'.)'Y#*F.'Y)"%#*$'$';$0&J%$E%'#$$''
e#.FJ-$#-'0") / '.F%'4A=>2'.)'.F%'4Ad>2IX'TF%' ( )$0%"%$E%')$'^-&.#E'9.JG#%2'#$'UJ") ,%:'%:'
] -"MJ"*:'!%"/ -$3D'9%,.%/ M%"'5>4=I'

'

S( )$.-#$$#$$*'.F%'Y)"%#*$'$';$0&J%$E%'TF"%-.'TF%'a ! ^c2'P2%')0'35*+&),K(&K,'.)'Y#*F.'Y)"%#*$'$';$0&J%$E%'#$$''
e#.FJ-$#-'#$$'.F%'4A6>2'-$G'4AC>2IX'TF%'<22)E#-.#)$'0)"'9&-Q#E:'U-2.'UJ") ,%-$:''
UJ"-2#-$'9.JG#%2'E)$Q%$.#)$:.F%'P$#Q%"2#.3')0'7%$$23&Q-$#-:] -3'5>4?I'

'

S35*+&),K(&K,'-$G'.F%'9."J**&%'_#.F'7)&#.#E-&'P$"%2.'#$'.F%'^%ZF$%Q@U"-'e#.FJ-$#-IX'h -&%''
( )$0%"%$E%')$'^-&.#E'9.JG#%2:'<,"#&'5>4?I'

+

- # / "&%&+# $$%"% . +) 0+O"' ((%* *+- # * *%O%+

+

Y#"2.@h %-"TJ.)"#-&R'''TF%'e#0%'-$G'T#/ %2')0'b&8#.-'aF"J2FEF%Q'
Y#"2.@h %-"TJ.)"#-&R'''TF%'1#2.)"3')0'L%-G#$*'
Y#"2.@h %-"TJ.)"#-&''TF%'e#0M%"-&'<".2-2'-'Y)"E%'0)"'UQ#&')"'!))G'
1#2.)"3'4>>R'''·$$.)")GJE.#)$'.)'1#2.)"3'-$G';J#-.#)$2'#$$'.F%/)G%"$'+)"&G''
1#2.)"3'4>>R''·$$.)")GJE.#)$'.)'1#2.)"3'-$G'a#J#-.#)$2'.F%W)"&G'82''
1#2.)"3'4>=R'''(J&.J"-&'U$E)J$.%"2'#$'.F%/)G%"$'+)"&G''

- o 2%-"EF'E) / / #..%%'0)"'.%$J"%@."-E8',)2#.#)$'#$'U-2.'<2#-$'F#2.)"3:'5>4C@5>4d'
- o 2%-"EF'E) / / #..%%'0)"'.%$J"%@."-E8',)2#.#)$'#$' / %G#%Q-&')"'%-"&3' /)G%"$'