@66$&'.,//0!'#$! - $66,5$!'#$!%* - - .66.*&!,&1!'#$!>?!606'$ - !,($!5.<.&5!'*!=* - $&!,(*3&1!
'#$!=*(/1!.6!'#,'!'#$0! - 36'!;*&'(,;$H'!*(!,J*('!'#$.(!;#./1($&ℕ!*(!(.6C!/*6.&5!'#$.(!/.<$6!.&!
H($5&,&;0!,&1!;#./1J.('#B!"#.6!.6!&*'!,&!$ - H*=$(.&5! - $66,5$B!K&1!.'!.6!;$(',./0!&*'!
H(*<.1.&5!=* - $&!=.'#!*H'.*&6!'*!;#**6$B!

!

!

J"#9-850+)%-(#+(7#7'&'0-8.'()#%//5'/#+(7#)2'(7/C#%(6057%(3#72%&'2/#+(7#%.8+6)/C#+&'#%.8-2)+()#*
%.80%6+)%-(/#4-2#)*'#452)*'2#%.80'.'()+)%-(#-4#)*'#92-32+..'#-4#:6)%-(#+(7#)*'#+6*%'&'.'()#-4#*
)*'#H>$/"#K*+)#2-0'#6+(#)*'#,-..%//%-(#80+1#%(#3507%(3#G'.F'2#H)+)'/#+(7#)*'#%()'2(+)%-(+0#*
6-..5(%)1#%(#2'/8-(7%(3#)-#)*'/'#%//5'/#+(7#)2'(7/I#*

!

"#$!(*/$!*)!'#$!%* - - .66.*&!6#*3/1!&*'!J$!'*!53.1$!Y$ - J$(!A','$6ℕ!J3'!'*!;($,'$!
&*(-,'.<$!53.1,&;$!)*(!'#$!>&.'$1!?,'.*&6!606'$ - B!Y$ - J$(!A','$6!1*!&*'!',C$!
53.1,&;$!)(* - !'#$!%* - - .66.*&B!
"#$!&*(-,'.<$!53.1,&;$!*)!'#$!%* - - .66.*&!6#*3/1!J$!)*;36$1!*&!;*&6$&63,/!&*(-,'.<$!
,&1!H(*5(,--,'.;!,6H$;'6!*)!ℕ%GIℕ!.&;/31.&5!.&!($/,'.*&!'*!'#$!A36',.&,J/$!I$<$/*H - $&'!
R*,/6B!
"#$!%* - - .66.*&!6#*3/1!,<*.1!6'(,0.&5!.&'*!;*&'(*<$(6.,/!H*/.;0!1$J,'$6!'#,'!,($!
66&'.,//0!'#$!H(*<.&;$!*)!1* - $6'.;!/,=-,C.&5ℕ!.&;/31.&5!.663$6!/.C$!,J*('.*&ℕ!-,((.,5$ℕ!
H,($&',/!53.1,&;$!.&!$13;,'.*&ℕ!,;;$66!'*!6$P3,/!,&1!($H(*13;'.<$!#$,/'#!6$(<.;$6!)*(!
-.&*(6B!
>&/$66!'#$!&*(-,'.<$!53.1,&;$!*)!'#$!%* - - .66.*&!)*(!'#$!>?!606'$ - !.6!J,6$1!*&!'#$!
;*&6$&636!($,;#$1!.&!ℕ%GIℕ!'#$!=*(C!*)!'#$!>?!606'$ - !=.//!/*6$!H*/.'.;,/!/$5.'. - ,;0!
=$,C$&!.&'$(&,'.*&,/!;**H$(,'.*&!,&1!)3('#$(!;*&'(.J3'$!'*!'#$!;(.6.6!*)! - 3/'./,'$(,/.6 - B!

!

!

L"#=(#-27'2#)-#+772'//#)'#+F-&'#M5'/)%-(/#+(7#%//5'/C#D-507#%)#F'#7'/%2+F0'#-2#4'+/%F0'#4-2#)*'#*
,-..%//%-(#)-#+7N5/)#%)/#.')*-7/#-4#D-2E#?-23+(%O+)%-(+0#+/8'6)/C#/5F/)+()%&'#'0'.'()/C#*

%%"#H5F/)+()%&'#Q0'.'()/#

!

K6!&*'$1!,J*<$ℕ!'#$($!,($!-,&0!&$5/$;'$1!,6H$;'6!*)!'#$!ℕ%GI!*3';*-$!'#,'!1*!&*'!($;$.<$!J,/,&;$1!*(!,1$]3,'$!;*<$(,5$!.&!'#$!%*--.66.*&Z6!=*(C!*(!.&!*'#$(!.&'$(5*<$(&-$&',/!&$5*'.,'.*&6B!

"*!#$/H!;($,'$!,!-*($!J,/,&;$1!;*<$(,5$!*)!'#$!$&'.($!ℕ%GI!,5$&1,ℕ!'#$!;*--.66.*&!6#*3/1!)*;36!*&!&$5/$;'$1!,($,6!.&;/31.&5!'#$!),-./0Z6!$66$&'.,/!(*/$!.&!'#$!1$<$/*H-$&'!&$P36ℕ!$-$(5.&5!)*;36!,($,6!63;#!,6!,5.&5ℕ!,&1!/,55.&5!.&'$(&,'.*&,/!5*,/6!($/,'$1!'*!-,'$(&,/!#$,/'#