



! ! ! ! !



!

" #!\$%&' ()&*!+\$, ' (-!. &(-!/((&**!0\$12' &1* -)3!)' !45)' 2!&66512!25!*(\$+&!, 3!+5(\$+3157, (2)5' !56!+6&8*\$9)' %!
-&\$+2-!2&(-' 5+5%)&*!651!; ; <=>8?@!

!

01&**!A&+&\$*&!

!

?B! C\$D! BEBEF! #&G! H51! !8! "#\$! %&'(\$)! *+(', &-! "\$. #&, /, 0! 1! 2+&3! (, 0\$(\$5! 6'(#! (#\$! %*! 7\$8\$/ , 9: \$&(!
; 5, 05+: : \$! <%* 7 ; =! %*! >, &?\$5\$&. \$! , &! "5+) \$! +&!) 7\$8\$/ , 9: \$&(! <%* >"@7=! +&!) (#\$! A, 5/!) B\$+/(#!
C50+&'D+(', &kABC=4/+E&. #&!) (#\$! "\$. #!@. \$-!; +5(&\$5-# '9!<"@; =(,) +1!+-19+5(!, ?!+! , , 5) '&+(\$)!+995, +. #!
(, !-(5\$&0(\$&!) \$8\$/ , 9'&0! . , E&(5'\$-! 5\$-9, &-\$-!(, !>CGH7IJK! +&!) '&. 5\$+-!\$! +. . \$-!(, !/'?\$-+8'&0! #&+/(#!
(\$. #&, /, 0'\$-!!

!

@-!) \$: +&!) ? , 5! 9\$5-, &+! 95, (\$. ('8\$! \$ME'9: \$&(4! : \$)'. +/!) \$8' . \$-!+&!) '+0&, -(' . -!'&. 5\$+-!-\$! N9, &\$&'(+//1!
+: ')! (#\$! 0/, 0+! 9+&) \$: '. 4! . , E&(5'\$-! 6'(#! /: '\$) !5\$-, E5. \$-!+5\$!, ?(\$&! E&+0/\$(, ! 9E5. #+-!\$!, 5! 95,) E. \$! (#\$!
(, /-! (#\$! 1! &\$&!) (, !: , E&(1\$??\$. ('8\$! 5\$-9, &-\$-!(, !>CGH7IJKLIP+. 3! , ?!+ . . \$-!(, !(\$. #&. +! \$N9\$5('-\$4!(5+'&'&0!
+&!) 15\$0E/+ (, 51! ?5+: \$6, 53-!+/-, !/: '(/ , . +! 95,) E. (' , &! , ?! \$--&'(+! \$ME'9: \$&(!'&!(#\$-\$15\$0', &-4! 9+5(' . E/+5/1!
?, 5! : , 5\$! . , : 9/\$N! 95,) E. (-!/' 3\$! 8\$&' /+ (, 5-!!

!

"@; !+': -!(, !+) 5\$-! . 5'(' . +/! -# , 5(+0\$-! , ?! \$--&'(+! #&+/(#! (\$. #&, /, 0'\$-!+&!) \$ME'9: \$&(! 0! ! . , &&\$. ('&0!
: +&E?+. (E5\$5-! 6'(#! . 5'(' . +! \$N9\$5('-\$!+&!)! \$: \$50'&0! : +&E?+. (E5\$5-! '&!) \$8\$/ , 9'&0! . , E&(5'\$-!(, !-#+5\$!(#\$!
'&?, 5: +(' , &4! (\$. #&. +! \$N9\$5('-\$!+&!)! 5\$-, E5. \$-! &\$. \$--+51! (, !- . +! \$! E9! 95,) E. (' , &! , ?! (#\$-\$! (, /-! ! "#\$!
; +5(&\$5-# '9! 6'!!! +/-, !-E99, 5(! . , E&(5'\$-!(, !) \$8\$/ , 9!+??, 5) +0/!(\$. #&, /, 0'\$-!+&!) \$ME'9: \$&(! (#+(! : \$\$(!
ME+/(1!+&!)!-+?\$(1!-(+&) +5) -!!

!

0* , 64! : , 5\$!(#+&! \$8\$54! (#\$! 0/, 0+! ! . , : E&'(1! &\$&)-!(, !E&'(\$! (, !-+8\$!/'8\$-!+&!)!-\$. E5\$!-E-(+'&+0/!\$!E(E5\$-! !
H&\$ME+/'('\$-!+5\$! \$N+ . \$50+('&0! (#\$! (\$. #&, /, 0! 1!+&!) '0'(+! /) '8') \$! 6#&#! (! . , : \$-!(, !, 99, 5(E&'('\$-!?, 5! 1, E(#4!
. 5\$+('&0! +!) '8') \$! (#+(! (#5\$+(\$&-!(, !/\$+8\$! (#\$: !O\$#&'&) 4R! -+1-!@: '&+! S! T , #+ : \$) 4! 7\$9E(1! U\$. 5\$+51!
V\$&\$5+! / , ?! (#\$! %*! ! QH&. 5\$+-'&0! +. . \$-!(, ! &\$. \$--+51! (\$. #&, /, 0'\$-! (#5, E0#! 9+5(&\$5-# '9-4! '-! +! . 5E. '+!
. , : 9, &\$&(, ?!(#\$! %&'(\$)! *+(', &-!>CGH7IJK! #&+/(#! #E: +&'(+5'+&!+&!)!- . , ! \$. , &, : '. !5\$-9, &-\$!R!

!

"@; !6'!!! O\$!\$!) !O1! (#\$! %*! "\$. #&, /, 0! 1! 2+&3! ? , 5! P\$+-(! 7\$8\$/ , 9\$)! >, E&(5'\$-4! \$-(+0/'-#&!)! '&! WXJY!(, !+--'-(!
0, 8\$5&: \$&(-! 6'(#! (#\$!) \$8\$/ , 9: \$&(!+&!) +) +9(+(' , &! , ?! &\$6! (\$. #&, /, 0'\$-! ! "#\$! '&'(+('8\$4! 6#'. #! '-! , 9\$&(, !
+//!) \$8\$/ , 9'&0! . , E&(5'\$-4! 6'!!! +/-, !O\$!-E99, 5(\$)! O1! (-! . , 5\$! 9+5(&\$5-4! %* 7 ; 4! %* >"@7!+&!) ABC! !!

!

0A'(#, E(!+ . . \$-!(, !/'?\$-+8'&0! (\$. #&, /, 0'\$-4! : +&1!) \$8\$/ , 9'&0! . , E&(5'\$-!+5\$! E&95\$9+5\$)! ? , 5! (#\$! 9, (\$&' +//1!
) \$8+-('&0! ': 9+. (! , ?! >CGH7IJK4R! -+1-! S, -#E+! U\$('9+! T +&+0'&0! 7'5\$. (, 54! %*! "\$. #&, /, 0! 1! 2+&3! ! 021!



\$&+0/'&0!)\$8\$, 9'&0!., E&(5'\$-!(, !95,)E. \$!(#\$-\$!(\$.#&, /, 0'\$-!(#\$: -\$/8\$-4!6\$!. +&!#\$/9!-\$!(#\$: !, &!(\$#!
9+(!(\$, !5\$. , 8\$51LR!

!

"@; F-!3\$1!E&. (' , &-!6'/'&./E) \$Z!

[0157, (2!= 651J \$2)5' !K!+!)'0'(+!6+5\$#, E-\$!, ?!: +&E?+. (E5'&0!+&!)!)\$-'0&!-9\$. '?'. +(' , &-4!(\$.#&'. +!
3&, 6/\$)0\$!+&)'&?, 5: +(' , &!5\$ME'5\$)!(, !'&.5\$+-\$. +9+. '(1!

[.&(-')(\$+L,)7\$' (&!K!+!'?'\$/'&\$!, ?!(\$.#&'. +!-E99, 5!(, !#\$/9!: +&E?+. (E5\$5-!(5, E0/\$-#, , (!'--E\$-!



-9\$. '+/I9E59, -\$! -9+5\$!9+5(-4! -9\$. '?'. !(\$. #&'. +/!3&, 6!#, 64!\$N9\$5'\$&&. \$! 6'(#!)??\$5\$&!((\$. #&, /, 0'\$-4!+&)!
 ?E&)'&O!?, 5!5\$-\$+5. #!+&!)!\$8\$/, 9: \$&(L!V5\$+(\$5!+.. \$--!(, !(#\$-\$!(, , /-!, ??\$5\$!)E&)\$5!''@; !6'//!-+8\$!/'8\$-4!
 0, , -(, E5!., E&(5!F-!5\$-9, &-\$-!(, !>CGH7!JK!+&)!#\$/9!E-!95\$9+5\$!?, 5!?'E(E5\$!.5'-\$-!R!
 !

___!

! /M5, 2!2-&!'' #!. &(-' 5+5%D!N\$' !!
 !

"#\$!%*"! "\$. #&, /, 0!2+&3!-'!+!0/, 0+!/, 50+&'-(, &!)\$)' . +(\$)! (, !\$&#+&. '&O!(\$!., &(5'OE(' , &! , ?!-'&\$. \$4!
 (\$. #&, /, 0!1+&)'!&&, 8+(' , &!?, 5!-E-(+'&+O/\$!) \$8\$/, 9: \$&(!&!(\$!6, 5/)F-! a!/\$+-(!)\$8\$/, 9\$)!., E&(5'\$-L!P\$+-(!
)\$8\$/, 9\$)!., E&(5'\$-!+5\$!/, 6!&. , : \$!., E&(5'\$-!., &?5, &('&O!-\$8\$5\$!-(5E. (E5+!/: 9\$)': \$&-!(, !-E-(+'&+O/\$!
)\$8\$/, 9: \$&(L!''#\$1!+5\$!#0#1!8E/&\$5+O/\$!(, !\$. , & : '.!+&)!\$&8'5, &: \$&(+!-# , .3-!+&)!#+8\$!/, 6!/\$8\$!-!, ?!
 #E: +&!+--\$(-!
 !

"#\$!%*"! "\$. #&, /, 0!12+&3!-E99, 5(-!&+(' , &+!+&!)!5\$0', &+!(\$. #&, /, 0'. +!\$??, 5(-!&!/\$+-(!)\$8\$/, 9\$)!
 . , E&(5'\$-4!5\$&?, 5. '&O!9+5(\$5\$-#9-!+.5, --!-\$. (, 5-!+&!)#\$/9'&O!&+(' , &-!')\$&('?!+&!)!E-\$!
 +995, 95'+(\$!(\$. #&, /, 0'\$-!(, !(\$+&-?, 5: !(\$'\$5!\$. , & : '\$-!+&!)': 95, 8\$!/'8\$!/# , ,)-!
 !

! /M5, 2!'' #!>&9&+53J &' 2!015%1\$J J &!0'' #>OPI!
 !

%*7; !9+5(\$5-\$!6'(#!9\$, 9/\$!+(+//!/\$8\$!-!, ?!-, . '\$!(!, !#\$/9!OE!')!&+(' , &-!(#+(!. +&!6'(#-(+&!)!5'-\$-4!+&!)!5'8\$!
 +&!)!-E-(+'&!(#'\$3'&!)! , ?!05, 6(#!(#+(!: 95, 8\$-\$!(\$!ME+/'(1!, ?!/'?#!?, 5!\$8\$51, &\$!C&!(\$!05, E&)'!&- , : \$!JaX!
 . , E&(5'\$-!+&!)!(\$5'(\$, 5'\$-4!6\$!, ??\$5!0/, 0+!9\$5-9\$. ('8\$!+&!)!/, . +!/'&-0#(!, !#\$/9!\$: 9, 6\$5!/'8\$!-!+&!)!OE!')!
 5\$-/'\$&(!&+(' , &-!
 !

! /M5, 2!'' #!: 5' 6&1&' (&!5' !. 1\$7&!\$' 7!>&9&+53J &' 2!0'' #: . />PI!
 !

%*>"@7!-E99, 5(-!)\$8\$/, 9'&O!., E&(5'\$-!(, !+.. \$--!(#\$!O\$&\$?'(-!, ?!+!0/, 0+!'D\$)!\$. , & : 1! : , 5\$!?'+'5!1+&!)!
 \$??\$. ('8\$!14!#\$/9'&O!\$ME'9!(\$# : !(, !)\$+!6'(#!(#9, (\$&('+/!)5+60+. 3-!, ?!05\$+(\$5!\$. , & : '.!&(\$05+(' , &L!'' , !
) , !(#'-4!%*>"@7!95, 8')\$-!+&+1-'-4!?'+'('+((\$-!., &-\$&-E-IOE!')'&O!+&!)! , ??\$5-!(\$. #&'. +/!+--'-(+&.\$!''#'-!
 #\$/9-!, E&(5'\$-!(, !E-\$!(5+)\$4!'&8\$-(: \$&(4!?'&+&.\$4!+&!)!(\$. #&, /, 0!1+!-!8\$#'. /\$-!?, 5!&./E-'8\$!+&!)!-E-(+'&+O/\$!
)\$8\$/, 9: \$&(L!
 !

! /M5, 2!2-&!Q51+7!R&\$+2-!; 1%\$')S\$2)5' !0QR; PI!
 !

ABC!'-!(\$!%&'(\$)!*+(' , &-!-9\$. '+/D\$)!+0\$&. 1!?, 5!#\$/+/(#!H(!-'!+&!'&(\$50, 8\$5&: \$&(+! , 50+&'D+(' , &!+&!)!
 6, 53-!&! , //+0, 5+(' , &!6'(#!'(-!T\$: O\$5!U(+(\$-!E-E+//!(#5, E0#!(#!\$T'&'-(5'\$-!, ?!B\$+/(#!''#\$!A, 5/)!B\$+/(#!
 C50+&'D+(' , &'!-!5\$-9, &-O!/?!, 5!95, 8')&O!/\$+) \$5-#9'!, &!0/, 0+!/#\$/+/(#!: +((\$5-4!-#+9'&O!(\$!#\$/+/(#!5\$-\$+5. #!
 +0\$&)+4!-\$('&O!&, 5: -!+&!)!-(+&)+5(' . E+('&O!\$8')\$&.\$!0+-\$)!9, /'. 1!, 9(' , &-4!95, 8')&O!(\$. #&'. +/!
 -E99, 5(!, !., E&(5'\$-!+&!)! : , &'(\$, 5'&O!+&!)!+--\$--&O!#\$/+/(#!(5\$&)-!P\$+5&! : , 5\$!+(!666!6#, !&!(L!
 !

C&7)\$!: 5' 2\$(2*!)



", 01!U': , &!
(-': , &b0/, 0+/#\$+/(#-(5+(\$0'\$-L, 50!
cJ!<]XJ=!Y` d!XKYW!
!
P, E'-\$!U(,))+5)!
%*"2bE&L, 50!!
c]]!<X=!Y!]J!YJ!aJ!aW!