! "#\$%& ' "(&)\*+) ! \$(,")

+

## (, '#/.)!#0!!!<u>J&1;2;7\$0#\$;32</u>!

JC "%/#0\$1%2\$!I.#;0!

QC - .%! I .#;0!;7!#//3;2\$%&!?=!\$. %! " %#2!34!\$. %! I 3>>%@%!34!\$. %! J 0\$7!#2&! 8 ;>>! 7%0<%!;2!\$.;7!#& 1;2;7\$0#\$;<%!03>%!#\$!\$. %!/>%#7B0%!34!\$. %! " %#2!34!\$. %! I 3>>%@%! 34!\$. %! J 0\$7C!

QQC

!

! U

QC I 3B07%\*/03@0# 1 !5330&;2#\$307! 1 #=!?%!#//3;2\$%&!?=!\$.%! I .#;0!430!53B07%7! 30!5B00;5B>#0!5325%2\$0#\$;327!\$.#\$!#0%!40%VB%2\$>=!\$#B@.\$!?=! 1 B>\$;/>%!4#5B>\$=C!

- QQC I 3B07%\*/03@0# 1 !5330&;2#\$307!7. #>>!&%\$%0 1 ;2%!@%2%0#>!53B07%!/3>;5=!#2&! 5B00;5B>#0!532\$%2\$!;2!5327B>\$#\$;32!8;\$..\! I .#;0!#2&!4B>D\$; 1 \%!4#5B>\$=!;2! \$.\%! " \%/#0\\$ 1 \%2\\$!34! " #25\%!#2&!?\%!0\%7/327;?>\%!430! 1 32;\\$30;2@!#77;@2\%! #5#&\% 1 ;5!#0\%#7C!
- QQQC I 3B07%\*/03@0# 1 !5330&;2#\$307! 8 ;>>!0%5%;<%!#//03/0;#\$%!53B07%! 0%#77;@2 1 %2\$7!#7!&%\$%0 1 ;2%&!;2!5327B>\$#\$;32! 8 ;\$.!\$.%! I .#;00!!!

"C!J77;7\$#2\$!I.#;0!

QC



Y

3/%0#\$;327!#2&! 1 #;2\$%2#25%!34!\$. %!537\$B 1 %!7.3/A!7B/%0<;7;32!34!7\$B&%2\$! #77;7\$#2\$7!#2&!3\$. %0!/%07322%>A!\$. %!5327\$0B5\$;32A!/B05. #7;2@!#2&! 1 #;2\$%2#25%!34!\$. %!537\$B 1 %7!430!%#5.!/03&B5\$;32A!#2&!830H;2@!8;\$.! #77;@2%&!537\$B 1 %!&%7;@2%07!#2&!\$. %!M03&B5\$;32! N#2#@%0C!

!

- <3\$%!34!\$.%!53 1 1;\$\$%%C! .%!9%50%\$#0=!7.#>>!/B?>;7.!1;2B\$%7!30!#! 1 %%\$;2@!7B 1 1#0=!8;\$.;2!()!&#=7!34!\$.%!%2&!34!\$.%!0%>%<#2\$! 1 %%\$:2@C!
- %C .%! "ZI!7.#>>!0%/0%7%2\$!\$.%!/0%03@#\$;<%!430!\$.%!I311;\$\$%%!34!\$.%!G.3>%!#2&!:\$7!7B?D5311;\$\$%%7C!
- 40 J 5\$;2@!#7!#! I 3 1 1;\$\$%%!34!\$.%! G . 3>%!7.#>>!?%!0%#44;0 1 %&!#22B#>>=!
  ?=!#! 1 #T30;\$=!<3\$%!34!\$.%!4B>>D\$; 1 %!4#5B>\$=! 1 % 1 ?%07!34!\$.%!
  " %/#0\$ 1 %2\$!34! " #25%!?=!7%50%\$!?#>>3\$!#7!\$.%!4#5B>\$=b7!/0%4%00%&!
  #>\$%02#\$;<%!\$3!#! " Z I !\$.#\$!;7!7\$0B5\$B0%&!?=!%>%5\$;3270!

## 0P0 N%\\$;2@7!

!

- #C .%! "ZI!7.#>:10%7%0<%!#! 1;2; 1B1!34!\$83!1%%\$;2@7!#!132\$. A!. %>&! #7!2%%&%&\#2&!8;>>!.3>&!#!1;2; 1B1!34!32%!1%%\$;2@!#!132\$. C!!
- ?C .%! "ZI!7.#>>! 1 %%\$!325%!#! 1 32\$.!8;\$..\\$.\%! " %/#0\\$ 1 \%2\\$! I .#;0C!
- 50 .%! "%/#0\$ 1 %2\$! I .#;0!30!#2=!3\$.%0! 1 % 1 ?%0!34!\$.%! "ZI!5#2! 0%VB%7\$!#! 1 %%\$;2@!?=!532\$#5\$;2@!\$.%! "ZI!5.#;0!
- &C .%! "ZI!I.#;0!7.#>>!/B?>;7.!#@%2&#7!#2&!1%%\$;2@!\$;1%7!;2!
  #&<#25%C!-.%! "ZI!9%50%\$#0=A!30!#2=!1%1?%0!34!\$.%! "ZIA!7.#>>!
  /B?>;7.!1;2B\$%7!30!#!1%%\$;2@!7B11#0=!8;\$.;2!()!&#=7!34!\$.%!%2&!
  34!\$.%!0%>%<#2\$!1%%\$;2@!\$.#\$A!#\$!1;2;1B1A!0%530&7!#\$\$%2&#25%A!#>>!
  #5\$;327A!#2&!&%5;7;327!30!0%5311%2&#\$;327!34!\$.%! "ZIC!!!
- %C .%! "ZI!7.#>>!\$#H%!2%5%77#0=! 1 %#7B0%?!\$3!#77B0%!532\$;2B%&!
  4B25\$;32;2@!34!\$. %! "ZI!&B0;2@!\$. %!7B 1 1 %0! 1 32\$.7!;4!2%5%77#0=C!
   .%! "ZI!I.#;0!8;>!?%!#<#;>#?>%!?=!% 1 #;>!#2&!8;>>!&;7/%07%!
  ;2430 1 #\$;32!\$3!\$. %! "ZI!<;#!% 1 #;>!#7!2%%&%&C!!!
- 40 J!\$83D

\$.%!I.#;0C!!

50 - .%!" 9 I !0%/0%7%2\$7!\$ . %!;2\$%0%7\$7!34!#>>!4B>>D\$; 1 %!&%/#0\$ 1 %2\$#>!7\$#440!

QQQC N%1?%07S!R>%5\$;32!34!I.#;0!

!

 $\#\emptyset - .\%! "9I!7.\#>:!4B25\$;32!\#7!\#!I311;\$\$\%!34!\$.\%!G.3>\%0!$ 

?C - .%! "9 I!7 . #>>!?%!53 1 / 37%&!34!#>>!4B>>D\$; 1 %!7

IC M03 1 3\$;32!#2&! - %2B0%

! e

;C Q4!#! 1 % 1 ?%0!;7!B2#?>%!\$3!7%0<%A!;\$!;7!\$. %!0%7/327;?;>;\$=!34!\$. %!4B>>D \$; 1 %!4#5B>\$=!\$3!%>%5\$!#!0%/>#5% 1 %2\$! 1 % 1 ?%0C!!

QPC

!

#C - .%! J 77%77 1 %2\$! I 3 1 1 ;\$\$%%!7 .#>>!?%!53 1 /37%&!34!#! 1 ;2; 1 B 1 !34! \$8 3!4B>>!\$; 1 %!/%0 1 #2%2\$!4#5B>\$=! 1 % 1 ?%07!#//3;2\$%&!?=!\$ . %! I . #;00!

?C - .%! I .#;0!34!\$ .%! J 77%77 1 %2\$! I 3 1 1 ;\$\$%%!;7!#//3;2\$%&!?=!\$ .%! I .#;0! 34!\$ .%! " %/#0\$ 1 %2\$!34! " #25%C! " B\$;%7!34!\$ .%!5 .#;0!;25>B&%! /0%/#0#\$;32\*/B?>;5#\$;32!34!#@%2&#7!#2&!&;77% 1 ;2#\$;32!34! 1 #\$%0;#>7C!!

\C I3>>%@%!#2&!"%/#0\$1%2\$!9\$#2&;2@!I311;\$\$%%7!

QC I 3>>%@%!#2&!&%/#0\$ 1 %2\$!7\$#2&;2@!53 1 1 ;\$\$%%7!7 . #>>!?%!53 1 / 37%&!34!4#5B>\$=! 8 ;\$ . !4B>>D\$; 1 %!#//3;2\$ 1 %2\$7!#2&A!;2!73 1 %!5#7%7A!4B>>D\$; 1 %!7\$#44C!M#0\$D\$; 1 %!

```
(,'#/.)!"0!!!P3$;2@!
P3$:2@!32!1#$$%07!34!&%/#0$1%2$#>!/3>;5=!#2&!/035%&B0%7A!&%@0%%!/03@0#1!5.#2@%7A!
#5#&% 1;5!7$#2&#0&7!#2&!;2$%@0;$=\!#5#&% 1;5!.32307\!53 1 1;$$%\! 1 \% 1 ?\\07.:/\!
&%/#0$1%2$#>!0%/0%7%2$#$:32A!231:2#$:327!430!53>%@%!#2&!B2:<%07:$=!/37:$:32A!#2&!
0%<;7;32!34!&%/#0$1%2$#>!?=>#87!7.#>>!?%!&%$%01;2%&!#7!43>>387'!
        J(!R>;@;?;>;$=!
                                E2>=!4B>>D$; 1 %!4#5B>$=!#0%!%>;@;?>%!$3!<3$%(!9$#44! 1 #=!<3$%!430!/37;$;327!430!
                                8.;5.!7$#44!#0%!%>;@;?>%!$3!?%!%>%5$%&C!
                                J?7%2$!4#5B>$=*7$#44!1#=!<3$%!?=!80;$$%2!/03F=C!
        KC! g B30B 1!
                                J!VB30B1!7.#>>!5327;7$!34!$83D$.;0&7!34!$.37%!%>;@;?>%!$3!<3$%!
                    00
                   900
                                M03F;%7!7.#>>!23$!53B2$!$38#0&!#!VB30B1C!
         I C!M#77#@%!34!#! N 3$:32!
                                J!7; 1 />%! 1 #T30;$=!34!$. 37%!<3$;2@!7. #>>!?%!0%VB;0%&!$3!/#77!#! 1 3$;320!
                    00
                   000
                                J!$83D$.:0&7!1#T30;$=!34!$.37%!<3$;2@!7.#>>!?%!0%VB;0%&!$3!/#77!#2!
                                # 1 %2& 1 %2$!$3!$. %! " % /#0$ 1 %2$!34! " #25%!?=># 8 70!
         " (!K#>>3$7!
                                9%50%$!?#>>3$7!1#=!?%!B7%&!430!<3$;2@!8.%2!&%%1%&!#//03/0;#$%!?=!#!
                                7; 1 />%! 1 #T30;$=!34!$. %!<3$;2@!4#5B>$=C!
        RC!R>%5$032;5!P3$:2@!
                                P3$;2@! 1 #=!?%!&32%!%>%5$032;5#>>=!;4!#//03<%&!?=!#!7; 1 />%! 1 #T30;$=!34!$. %!
                                 1 % 1 ?%07!34!#!53 1 1 ;$$%%!30!$ . %!&% / #0$ 1 %2$C!
( , '#B/7.!3%\\mathred{BCD};5\\mathred{5}\\mathred{BCD};5\\mathred{BCD};5\\mathred{BCD};4\\mathred{DCD};2\\mathred{DCD};1\\mathred{DCD};1\\mathred{DCD};1\\mathred{DCD};1\\mathred{DCD};1\\mathred{DCD};2\\mathred{DCD};1\\mathred{DCD};2\\mathred{DCD};2\\mathred{DCD};2\\mathred{DCD};2\\mathred{DCD};2\\mathred{DCD};2\\mathred{DCD};2\\mathred{DCD};2\\mathred{DCD};2\\mathred{DCD};2\\mathred{DCD};2\\mathred{DCD};2\\mathred{DCD};2\\mathred{DCD};2\\mathred{DCD};2\\mathred{DCD};2\\mathred{DCD};2\\mathred{DCD};2\\mathred{DCD};2\\mathred{DCD};2\\mathred{DCD};2\\mathred{DCD};2\\mathred{DCD};2\\mathred{DCD};2\\mathred{DCD};2\\mathred{DCD};2\\mathred{DCD};2\\mathred{DCD};2\\mathred{DCD};2\\mathred{DCD};2\\mathred{DCD};2\\mathred{DCD};2\\mathred{DCD};2\\mathred{DCD};2\\mathred{DCD};2\\mathred{DCD};2\\mathred{DCD};2\\mathred{DCD};2\\mathred{DCD};2\\mathred{DCD};2\\mathred{DCD};2\\mathred{DCD};2\\mathred{DCD};2\\mathred{DCD};2\\mathred{DCD};2\\mathred{DCD};2\\mathred{DCD};2\\mathred{DCD};2\\mathred{DCD};2\\mathred{DCD};2\\mathred{DCD};2\\mathred{DCD};2\\mathred{DCD};2\\mathred{DCD};2\\mathred{DCD};2\\mathred{DCD};2\\mathred{DCD};2\\mathred{DCD};2\\mathred{DCD};2\\mathred{DCD};2\\mathred{DCD};2\\mathred{DCD};2\\mathred{DCD};2\\mathred{DCD};2\\mathred{DCD};2\\mathred{DCD};2\\mathred{DCD};2\\mathred{DCD};2\\mathred{DCD};2\\mathred{DCD};2\\mathred{DCD};2\\mathred{DCD};2\\mathred{DCD};2\\mathred{DCD};2\\mathred{DCD};2\\mathred{DCD};2\\mathred{DCD};2\\mathred{DCD};2\\mathred{DCD};2\\mathred{DCD};2\\mathred{DCD};2\\mathred{DCD};2\\mathred{DCD};2\\mathred{DCD};2\\mathred{DCD};2\\mathred{DCD};2\\mathred{DCD};2\\mathred{DCD};2\\mathred{DCD};2\\mathred{DCD};2\\mathred{DCD};2\\mathred{DCD};2\\mathred{DCD};2\\mathred{DCD};2\\mathred{DCD};2\\mathred{DCD};2\\mathred{DCD};2\\mathred{DCD};2\\mathred{DCD};2\\mathred{DCD};2\\mathred{DCD};2\\mathred{DCD};2\\mathred{DCD};2\\mathred{DCD};2\\mathred{DCD};2\\mathred{DCD};2\\mathred{DCD};2\\mathred{DCD};2\\mathred{DCD};2\\mathred{DCD};2\\mathred{DCD};2\\mathred{DCD};2\\mathred{DCD};2\\mathred{DCD};2\\mat
        JC - .%! I .#:0!30!#2=!4B>>D$: 1 %!4#5B>$=! 1 #=!/03/37%!7B5 .!5 .#2@%7C!
       KC G0:$$\\2!/03/37\\\7!\$3! 1 3\&:4=!53\\B07\\7!\30!5\\B00:5\\B>\\#!7 .\\#>\!?\\!0\\<\\\8\\\&!?=!\$ .\\forall \\.
                I B00;5B>B 1 ! I 3 1 1 ;$$%%!!
        IC J!53 1 />%$%&!53/=!34!$. %!#//03/0;#$%!430 1 ! 1 B7$!?%!&;7$0;?B$%&!$3! "ZI!53 1 1 ;$$%%!
                 1 % 1 ?%07!#$!>%#7$!32%! 8 %%H!/0;30!$3!&;75B77;32!#2&!<3$%0!
        "C J!1#T30:$=!34!$.%!%>;@;?>%!<3$;2@!1%1?%07!;7!0%VB;0%&!$3!#//03<%!#2&!$3!#&3/$!
                /03/37#>7!430!2%8!53B07%7A!53B07%!&%>%$;327A!53B07%!0%<;7;327A!#2&!5.#2@%7!;2!$.%!
                5B00:5B>B 1 !#2&*30!5 . #2@%7!$3!&%@0%%!0%VB:0% 1 %2$70!
       RC J>>!5B00;5B>#0!5.#2@%7! 1 B7$!?%!#//03<%&!?=!$.%! I .#:0\! I 3>>\@\! I B00:5
```

! (Y

1

! (L

QC J >>!4B>>D\$; 1 %!4#5B>\$=!#0%!0%VB;0%&!\$3!7B? 1 ;\$!#2! J 22B#>!X%<;% 8! " 35B 1 %2\$!
] J X " ^!\$3!\$. %! I .#;0!#\$!\$. %!%2&!34!%#5 .!5#>%2&#0!=%#0!;2!#!430 1 #\$!5327;7\$%2\$!
8 ;\$.!B2;<%07;\$=!@B;&%>;2%70!] - .;7!&3%7!23\$!;25>B&%!>; 1 ;\$%&!4B>>D\$; 1 %!
4#5B>\$=C^!

- 000 J!80;\$\$%2!%<#>B#\$;32!403 1 !\$. %! I .#;0! 8 ;>>!?%!0%5%;<%&!?=!%#5 .!4#5B>\$=!
  1 % 1 ?%00! . %!4#5B>\$=! 1 % 1 ?%0! 8 ;>>! .#<%!\$. %!0;@ .\$!\$3!7B? 1 ;\$!#! 80;\$\$%2!
  0%7/327%!\$3!\$. %!%<#>B#\$;32!23!>#\$%0!\$. #2!\$%2!5#>%2&#0!&#=7!403 1 !\$. %!\$; 1 %!34!
  0%5%;/\$!34!\$. %!%<#>B#\$;320!
- QQQC J>!\$%2B0%!#2&!/03 1 3\$;32!&%5;7;327!#0%!@B;&%&!?=!\$. %!M03 1 3\$;32!#2&! %2B0%! [ B;&%>;2%7!430!\$. %! " %/#0\$ 1 %2\$!34! " #25%C!
- QPC R<%0=!4B>>D\$; 1 %!4#5B>\$=! 1 % 1 ?%0! 8 ;>>!2%@3\$;#\$%!#!Z#5B>\$=!M%0430 1 #25%!

! (a

Z#5B>\$=!VB%7\$;327!0%@#0&;2@!\$.%!3/%0#\$;327!34!\$.%!I3>>%@%!34!\$.%!J0\$7!7.3B>&!?%!#&&0%77%&!\$3!\$.%!0%/0%7%2\$#\$;<%7!34!\$.%!IZI!#7!4#5B>\$=!#&<35#\$%7!#2&!#&<;7%07!\$3!\$.%!&%#2C!!
9\$#44!VB%7\$;327!0%@#0&;2@!\$.%!3/%0#\$;327!34!\$.%!I3>>%@%!34!\$.%!J0\$7!7.3B>&!#&&0%77%&!\$3!\$.%!
0%/0%7%2\$#\$;<%7!34!\$.%!I9I!#7!7\$#44!#&<35#\$%7!#2&!#&<;7%07!\$3!\$.%!&%#2C!!
(,'#/.)!1#0!!J1%2&1%2\$7!\$3!K=>#87!

