

! "#\$%&'(\$")\*(+#\$,-)./"'(/')0123425)
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W#M!S"&7"3\*5"E2'(./0+(2"85>20315+3"/."?B%D23(/+9"P''"0(, \*3)"05)50H5B"

-OXNY"QZSTMTSM!!T!ZSSTV"

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#### E8?"8(H()(/+"8(05D3/0)Y"

- •" 50/+(D2"P,%('2"?B989J"?+,'() \*"@520+50"O%>>/03"
- •" I (D\*5''5"E5+350J"P))5))15+3"85H5'/>15+3"2+B"PB1(+()3023(/+"
- •" O35>\*2+(5"U05,)/+"?B989J"E%00(D%'%1"\02156/0="2+B"-+)30%D3(/+2'"A5)/%0D5)"
- •" E(+B7": 2c2+()J"P+2'7)()J" I 52)%0515+3J"2+B"PDD/%+32&('(37"A5>/03(+,"
- •" X20&202" I %0D\*() /+J"\$0/.5))(/+2'"@520+(+, "O%>>/03"
- •" O202\*"N5H(''5T I /0,2+J"?20'7"?B%D23(/+"2+B"O%>>/03"
- •" b5007" C (+='50J"?B%D23(/+2'"8232" | 2+2,515+3":0()3(+"C0(,\*3J"O>5D(2'"?B%D23(/+"
- •" 8/++2"C7233J"E20550"2+B"E/"5,5"402+)(3(/+"

A5>05)5+323(H5)".0/1"3\*5"E2'(./0+(2"E/1>05\*5+)(H5"E5+350"23"C5)3?B"2+B".0/1" O32+./0B"e+(H50)(37Y"

- •" 82+(5''5"U205, +2+(J"OD\*//'"-1>0/H515+3"\2D('(323/0J"E2'(./0+(2"E/1>05\*5+)(H5" E5+350"23"C5)3?B"
- •" @(c"b2157)/+J"O5+(/0"\$0/,021"P))/D(235J"E2'(./0+(2"E/1>05\*5+)(H5"E5+350"23" C5)3?B"
- •" I 20(2++5"b%)3%)J"\$0/.5))(/+2'"85H5'/>15+3"\$0/H(B50J"E2'(./0+(2"E/1>05\*5+)(H5"E5+350"23"C5)3?B"
- •" b2++5''5": %&(+5DJ"8(05D3/0J"E2'(./0+(2"E/1>05\*5+)(H5"E5+350J"C5)3?B"
- •" A/&503"@(+g%2+3\J"\$0/;5D3"8(05D3/0J"E2'(./0+(2"E/1>05\*5+)(H5"E5+350J"C5)3?B"
- •" I 5'2+(5"\$2D=\*21J"OD\*//'"-1>0/H515+3"\2D('(323/0J"E2'(./0+(2"E/1>05\*5+)(H5" E5+350"23"C5)3?B"
- •" A%3\*"O5&2)3(2+J"OD\*//"2+B"8()30(D3"(1>0/H5"

O% >> /03")32..".0/1"3\*5"?+, '()\*"@520+50"O% >> /03"8(H()(/+"23"3\*5"E8?Y")

- •" I 2072"E / 62+J"O32.."O50H(D5)" I 2+2,50"
- •" b5++(.50"E/0B/H2J"P))/D(235"U/H50+15+32"\\$0/,021"P+2'7)3"
- •" A2'>\*" I (02+B2J"O32.."O50H(D5)"P+2'7)3""
- •" X20&202"U20D(2J"?^5D%3(H5"O5D053207""
- •" P+,5'2" I DE2%'57J" [ ..(D5"45D\*+(D(2+""
- •" I 2^65''"X2))J"-+350+"
- •" ?B%20B/"\02+D/J"-+350+""

[ + "b%'7"! #J"#M! ZJ"3\*5"E2'(./0+(2"O3235"X/20B"/."?B%D23(/+"FOX?G"%+2+(1/%)'7"2>>0/H5B" 2"+56">/'(D7"./0"?+,'()\*"!520+50)J"3\*5"E2'(./0+(2"?+,'()\*"!0520+50"A/2B12>"?"?B%D23(/+2" \$0/,021)"2+B"O50H(D5)"./0"?+,'()\*"!0520+50)"F?@"A/2B12>"\$/'(D7G"6(3\*"3\*5"./''/6(+,"H()(/+"2+B"1()))(/+"")"

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?+, '()\*"'520+50)".%''7"2+B" 1 52+(+,.%''7"2DD5))"2+B">203(D(>235"(+"2"365+37T.(0)3"D5+3%07"5B%D23(/+".0/1"520'7"D\*('B\*//B"3\*0/%,\*",02B5"365'H5"3\*23"05)%'3)"(+"3\*5(0"2332(+(+,"\*(,\*"'5H5')"/."?+,'()\*">0/.(D(5+D7)"12)3507"/.",02B5"'5H5'")32+B20B)J"2+B"/>>/03%+(3(5)"3/"B5H5'/>">0/.(D(5+D7)"(+"1\*3'3)5'"2+,%2,5)9"

I())(/+"

E2'(./0+(2")D\*//')"2..(01J"65'D/15J"2+B"05)>/+B"3/"2"B(H50)5"02+,5"/."?+,'()\*"'520+50"

### $A \bullet A$

4\*5">0(1207"2%B(5+D5)"./0"3\*()",%(B2+D5"B/D%15+3"205"3\*5")3235a)"@?P)"2+B"35D\*+(D2"2))()32+D5">0/H(B50)J"(+D'%B(+,"D/%+37"/..(D5)"/."5B%D23(/+9"X%3"5H507">205+3J"

- •" -<?)"3/">05>205"352D\*50)"2+B"'52B50)"6 \*/"%+B50)32+B"2+B"5+)%05"3\*23"?+,'()\*" '520+50)"205"3\*5"05)>/+)(&('(37"/."2''"5B%D13/0)J"3/")305+,3\*5+">23\*627)"./0" &('(+,%2''"352D\*50)J"2+B"3/"D/''2&/0235"6(3\*""2DD05B(3(+,"2,5+D(5)"/+"3\*5)5"+55B)9""

-+"2")3235"6\*/)5">0/)>50(37"B5>5+B)"/+"3\*5")%DD5))"/."(1 1 (,02+3)"2+B"3\*5(0"D\*('B05+J"2''') E2'(./0+(2")32=5\*/'B50)" 1 %)3"/6+"3\*()"H()(/+"2+B" 1 ())(/+J"05)>/+B"3/"3\*()"D2'''3/"2D3(/+J" 2+B"(+350>053"2+B"2>>'7"3\*5"D/+35+3"/."3\*()",%(B2+D5"B/D% 1 5+3"6(3\*(+"3\*5(0"05)>5D3(H5" 0/'5)"(+"/0B50"3/"(1 >0/H5"5B%D23(/+2'"/>>/03%+(3(5)"./0"3\*5")3235a)"?+,'()\*"'520+50" )3%B5+3)9""

II II

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!9" P05"3*57"&2)5B"/+")/%+B"5B%D23(/+2'"3*5/07n""
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#9" P05"3\*57"(1>'515+35B"6(3\*")%..(D(5+3"0(, /0n""

L9" -) "3\*505"B5 1 /+) 302&'5"5H(B5+D5"/."5..5D3(H5+5)) "2.350"2") %..(D(5+3">50(/B"/." (1 > '5 1 5+323(/+n""

P+"(1>'(D(3"./%03\*")32+B20B")>52=)"3/"D/+3(+%/%)"(1>0/H515+3Y""

K9" X2)5B"/+"3\*5"5H(B5+D5"/."5..5D3(H5+5))J"B/5)"3\*5")7)351"12=5"5../03)"3/"(1>0/H5" (1>'515+323(/+"/0"3/"1/B(.7"(3)"3\*5/07n""

4\*5"E2)32f5B2")32+B20B)"0512(+"2,+/)3(D"

 $D2)5)"/."5..5D3(H5"\&('(+,\%2'")D*//')"3/")*/6"6*23"()">/))(\&'5J"2+"(1>/032+3"'5,2D7"/."3*()"6/0="62)"3*5"05D/, +(3(/+"/."6*23"65"3/B27"D2''"2D2B51(D"%)5)"/."'2+,%2,5"2)" \\ B()3(+,\%()*5B".0/1"5H507B27"/02'"'2+,%2,59^Z )$ 

E\*('B"@5.3"X5\*(+B"qNE@XrGJ"2+B"(+"&0/2B")30/=5)"(3"0512(+)"3\*5".02156/0="./0"3\*5"D%005+3"052%3\*/0(c23(/+J"3\*5"?OOP"/."#M!R9")30/=5)"(3"0512(+)"3\*5".02156/0="./0"3\*5"D%005+3"052%3\*/0(c23(/+J"3\*5"?OOP"/."#M!R9")30/=5)"(3"0512(+)"3\*5".02156/0="./0"3\*5"D%005+3"052%3\*/0(c23(/+J"3\*5"?OOP"/."#M!R9")30/=5)"(3"0512(+)"3\*5".02156/0="./0"3\*5"D%005+3"052%3\*/0(c23(/+J"3\*5"?OOP"/."#M!R9")30/=5)"(3"0512(+)"3\*5".02156/0="./0"3\*5"D%005+3"052%3\*/0(c23(/+J"3\*5"?OOP"/."#M!R9")30/=5)"(3"0512(+)"3\*5".02156/0="./0"3\*5"D%005+3"052%3\*/0(c23(/+J"3\*5")30/=5)"(3"0512(+)"3\*5".02156/0="./0"3\*5"D%005+3"052%3\*/0(c23(/+J"3\*5")30/=5)"(3"0512(+)"3\*5".02156/0="./0"3\*5"D%005+3"052%3\*/0(c23(/+J"3\*5")30/=5)"(3"0512(+)"3\*5")30/=5

 $8\%0(+, "3*5"NE@X">50(/BJ"3*5")3235"62)"2')/"./D\%)5B"/+"3*5"k)D(5+3(.(D2''7T&2)5B")520D*I"2)>5D3"/."3*5"'26"3*23", \%(B5B"2D2B51(D">0/,021)"2+B"35^3&//="2B/>3(/+)"2B*50(+, "3/"3*()">202B(,19"4*()"+56">202B(,1"2)=5B"5B%D23/0)"3/"&5"1/05"2DD/%+32&'5"./0"3*5"5H(B5+D5"3*23"3*57"*2B"3/")%>>/03"3*5(0"B5D()(/+T12=(+,"(+">02D3(D5J"2+B"*2B"3*5"5"5.5D3"/."12=(+,">0/,021)"./D%)"'20,5'7"/+"./%+B23(/+2'"'(3502D7")=('')J"6*505"1%D*"/."3*5")30/+,5)3"05)520D*"5H(B5+D5"5^()35B9"4*()")D(5+3(.(D">202B(,1"62)"'(1(35B"&7"(3)"B5.(+(3(/+"/."0(,/0"F3*0/%,*"02+B/1(c5B"D/+30/'"30(2')GJ"6*(D*"(+"3%0+"'(1(35B"3*5"02+,5"/.">202D3(D5)"3*23"D/%'B"&5"D/+.(015B"2D0/)))"B(..505+3"D/+35^3)9"-+"5..5D3J"3*5">202B(,1"(,+/05B"2>>0/2D*5)"2B2>35B"3/"&5"5..5D3(H5"6(3*">203(D%'20")3%B5+3)")50H5B"(+"'/D2'"D/+35^3)9""$ 

4\*5)5"'26)J"&7"./D%)(+,"/+")3%B5+3"2332(+15+3"2+B">0/,05))"3/620B"2332(+15+3"/."3\*5"

05B%D5")5'5D3(/+"&(2)"D05235B"&7"05 1 /H(+,"?+,'()\*T>0/.(D(5+3")3%B5+3)".0/ 1 "3\*5")%&,0/%>J"2+B"F&G">0/H(B5"2".%''50"2DD/%+3(+,"/."'/+,T3501"?@")%DD5))i!VJ!Z""

- •" O3235) J"%+B50"4(3'5"---J" 1%) 3"5) 32&'() \*") 32+B20B(c5BJ") 32356(B5"5+307"2+B"5^(3" >0/D5B%05) "2+B"D0(350(2"./0"?@") 323%) J"05) >/+) (H5"3/"5H(B5+D5"/."3\*5(0"(1 >/032+D5" .0/1 "5^35+) (H5"05) 520D\*"2+B">/'(D7"2+2'7)() i !SJ!QJ#M"
- •" ?H(B5+D5T&2)5B"(+350H5+3(/+)"F+/3"05)30(D35B"3/"?@">0/,021)G"205"3(505B"3/"2''/6" ./0"2"02+,5"/."(++/H23(/+)"2+B"'/D2""2B2>323(/+)9\*!"

4\*5)5"D\*2+,5)"(+".5B502'"'26"2''/6"./0"1/05"D/\*505+3J"+%2+D5BJ"2+B"05)>/+)(H5" >/'(D(5)"2+B")7)351)"/."2DD/%+32&('(37"3\*23"D/1>'515+3"2+B")%>>/03"E2'(./0+(2a)" 2>>0/2D\*"3/"D/+3(+%/%)"(1>0/H515+3"2+B"D2>2D(37"&%('B(+,9"

#### 2)H/@)2==&<(7"F\$#\$7B)5"'";\$+8))

?OOPJ"2)"65''"2)"E2'(./0+(2a)"5150,(+,"2DD/%+32&('(37")7)351"./0"D/+3(+%/%)" (1>0/H515+3J"05>05)5+3)"2"&0/2B"2D=+/6'5B,15+3"/."3\*5".2('%05"/."NE@XT)37'5"

!Z

 $2DD/\% + 32\&('(37"3/"05B\%D5"2D*(5H5 15+3",2>)9"4*5")3235"5+D/\%02,5)"3*5"152)\%0515+3" \\ 2+B"(1>0/H5 15+3"/."152+(+,.%'"'520-(+,."./0")3\%B5+3)J"(1>0/H5B"05)/\%0D5"2''/D23(/+"3/"3*5"+55B(5)3")3\%B5+3)J"2+B">0/.5))(/+2'"'520+(+,."2+B")%>>/03)"./0"352D*50)"2+B"'52B50)9" \\ PDD/1>2+7(+,."3*5)5")*(.3)"205"2"D/-3(+%/%)"(1>0/H5 15+3"1/B5'"3*23"&%('B)">/'(3(D2'"2DD/\%+32&('(37"F3*0/\%,*"@EP$)GJ">0/.5))(/+2'"2DD/\%+32&('(37J"2+B">50./012+D5"2DD/\%+32&('(379\mathrm{2}\mathrm{2}\mathrm{2}\mathrm{2}\mathrm{2}\mathrm{2}\mathrm{2}\mathrm{2}\mathrm{2}\mathrm{2}\mathrm{2}\mathrm{2}\mathrm{3}\mathrm{2}\mathrm{2}\mathrm{2}\mathrm{2}\mathrm{2}\mathrm{2}\mathrm{2}\mathrm{2}\mathrm{3}\mathrm{2}\$ 

# 5'&9&,\$7\$&()JKD)!"#\$%&'(\$")\*;<="7\$&()%&')")L#&F"#)\*=&(&8B)M!2) \*;GLG\*GN)O(\$7\$"7\$:/)

\$0/>/)(3(/+"RS"62)"2>>0/H5B"&7"ZL9R">50D5+3"/."E2'(./0+(2"H/350)"(+"#M!VJ"(+D'%B(+,"&7"2"12;/0(37"/."H/350)"(+"5H507"D/%+379"4\*5"EP"?B9U9?9"-+(3(23(H5"052..(01)"3\*5"05g%(0515+3"3\*23">%&'(D")D\*//')"5+)%05"?@")3%B5+3)"2332(+"?+,'()\*"'2+,%2,5">0/.(D(5+D7J"&%3"05>52')" \$0/>/)(3(/+"##Za)">0/H()(/+)"6\*(D\*"05)%'35B"(+")5H505'7"05)30(D3(+,"&('(+,%2'">0/,021)"(+"#72")(+"#72")(+

- •" PD2B5 1 (D"'2+, %2,5") %>> /03"B%0(+, "D/+35+3"2052"(+)30%D3(/+J"&2'2+D5B"6(3\*")30%D3%05B"5^>'(D(3"/>>/03%+(3(5)"./0"/02'"2+B"60(335+"'2+, %2,5")=('')"B5H5'/> 1.5+3""
- •" P>>0/>0(235"2))5)) 15+3"(+"H20(/%)"./01)"F59,9J"./0123(H5J"&5+D\*120=J")%1123(H56"3/"%+B50)32+B"2+B")%>>/03")3%B5+3"'520+(+,""
- •" \$0/D5))5)"05'235B"3/")/D(2'T51/3(/+2'"B5H5'/>15+3"2+B"(B5+3(37"./0123(/+""

 $4*5"NPO? I"05>/03"2')/"05H(56)"5^()3(+,"05)520D*"/+"5B%D23(/+2'")7)351)")50H(+,"7) + (1)*"520+50)J"2+B"+/35)"3*5"./''/6(+,"D*202D350()3(D)"F.0/1">2,5)"Zh#MJ"51>*2)()"2BB5B6"/."5..5D3(H5"'/D2'")7)351)Y"$ 

- •" 2; 8\$(\$,7'"7\$:/)#/";/',-\$9)"7)7-/);\$,7'\$=7)"(;),=-&&#)#/:/#,)7"?/,)
  '/,9&(,\$F\$#\$7B)./0"(+(3(23(+,"2+B")%)32(+(+,"(+)30%D3(/+2'">0/,021)"2+B">02D3(D5)"
  3\*23")%>>/03"3\*5".%''"2D2B51(D"B5H5'/>15+3"/."2''")3%B5+3)J"(+D'%B(+,"q?+,'()\*"
  '520+50)r9""
- •" P\* (+#\$, -)#/"'(/',0)"'/)'/=&+(\$R/;)",)="9"F#/)&%)#/"'(\$(+)@-"7/:/'),&=\$/7B)
  /\$9/=7,)"##)=-\$#;'/()7&)#/"'()\$(),=-&&#)'"7-/')7-"()",)\$(="9"F#/)&%)-"(;#\$(+)
  7-/),=-&&#T,)=<''\$=<#<8)<(7\$#)7-/B)8",7/')\*(+#\$,-6)4\*()"()"2".%+B215+32'"5>()T
  351/'/,(D2'"B(..505+D5"&53655+")D\*//')"3\*23"5B%D235"q?+,'()\*"'520+50)r"
  )%DD5)).%''7"2+B"3\*/)5"3\*23"B/"+/39""

 $2+B".55B\&2D="3/"\&/3*J"\&0(+,(+,"3/"\&520"3*5"B(H50)5">0/.5))(/+2'"5^>503()5"2+B">02D3(D2'"5^>50(5+D5)"/."3*5"6/0=,0/%>a)"151&50)9^{\#S"}$ 

II II

<sup>#\$&</sup>quot;4\*5".%''"'()3"/."3\*5"?@"A/2B12>"C/0=,0/%>"151&50)"D2+"&5"./%+B"23"
\*33>)Y]]6669DB59D29, /H])>]5']01]0/2B12>151&50)92)>9"

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+55B)"2+B"D2>2D(3(5)"3*2+"B/")3%B5+3)"5+350(+,"23"(+35015B(235"/0"2BH2+D5B" '5H5')9"O(1('20'7J")3%B5+3)"5+350(+,"(+"=(+B50,2035+"*2H5"B(..505+3"+55B)"3*2+" )3%B5+3)"5+350(+,"(+"'2350",02B5)9"4*5"+55B)"/."'/+,"3501"?+,'()*"'520+50)"205" H2)3'7"B(..505+3".0/1"05D5+3'7"200(H5B")3%B5+3)"F6*/"(+"3%0+"H207"(+"3*5(0">0(/0" ./012""5B%D23(/+69"8()30(D3)"H207"D/+)(B502&'7"(+"3*5"B()30(&%3(/+"/."3*5)5"?@" >0/.('5)J")/"+/")(+,'5">0/,021"/0"(+)30%D3(/+2'"2>>0/2D*"6/0=)"./0"2'""?@")3%B5+3)9"" 6--*8**)-**(8 "7/ "2+B"D21>%)5)"205"2 (0.1 (+, ||"(+D)%)/H5||"2+B")2.50"
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E9" 6=-&&#)=#\$8 "7/, "2+B"D21>%)5)"205"2..(01(+,J"(+D'%)(H5J"2+B")2.59"

89" OD\*//')"H2'%5"2+B"&%('B")30/+, "%" 8\$#B)"(;),=-&&#)9"'7(/',-\$9,6"

?9" OD\* / / ') "2+B"B()30(D3) "B5H5' /> "2"D / ''2& /023(H5".02 1 56 /0=". / 0"(B5+3(.7(+, "?+, '() \*" '520+50)"6(3\*"B() 2&('(3(5)"2+B"%) 5"H2'(B"2)) 5)) 1 5+3">02D3(D5) 9"OD \* / /') "2+B" B()30(D3) "B5H5' /> "2>>0/>0(235"(+B(H(B%2'(c5B"5B%D23(/+">0/,021)"F-?\$)6"3\*23") %>> /03"D%'3%02''7"2+B"'(+,%()3(D2''7"(+D'%)(H5">02D3(D5)"2+B">0/H(B5"2>>0/>0(235" 302(+(+,"3/"352D\*50))"3\*%)"'5H502, (+,"5^>503()5")>5D(.(D"3/"?+,'() \*"'520+50))"4\*5" -?\$"2BB05))5)"2D2B51(D", /2')"3\*23"32=5"(+3/"2DD/%+3")3%B5+3"'2+,%2,5" B5H5'/>15+3J"2)"D2''5B"./0"(+")3235"2+B"+23(/+2'">/'(D7"05D/115+B23(/+) $^{\#QJLMJL!}$ "

OO5q 1 6 (5 ) 0**5 5q(1=\$19.8%}}EE@&DØ((57)\*##3#T04)\*\$#)U542\*}-,4'(+21EO)55q6022O5qH111+(.53)8-46(5/(8)(5)28(07B5)42%(DO560O)-)-(5 ) 1 1 .** 

- E9"  $452D^*(+, "2+B")520+(+, "51>*2)(c5"5+, 2, 515+3)"(+3502D3(/+J"B()D/%0)5J"(+g%(07J"2+B")D0(3(D2'"3*(+=(+, "6(3*"3*5")215"-$+-)/$9/=7"7$&(,"./0"?+,'()*"'520+50)"2)"./0"2''")3%B5+3)"(+"52D*"/."3*5"D/+35+3"2052)9"$
- 89" ?+,'() \*"'520+50)"205">0/H(B5B""==/,,)7&)7-/)%<##)=<"\\$=<#< 8 "2'/+, "6(3\*"3\*5" >0/H()(/+"/."2>>0/>0(235"?@")%>>/03)"2+B")50H(D5)9"
- ?9" O3%B5+3)a"-**&8**/)#" (+<"+/"()"%+B50)3//B"2)"2" 1 52+)"3/"2DD5))")%&;5D3" 1 23350" D/+35+3J"2)"2"./%+B23(/+"./0"B5H5'/>(+,"?+,'()\*J"2+BJ"6\*505">/))(&'5J"()" B5H5'/>5B"3/"\*(,\*"'5H5')"/."'(3502D7"2+B">0/.(D(5+D7"2'/+,"6(3\*"?+,'()\*9"
- \9" A(, /0/%) "\$(,7'<=7\$&("#) 8 "7/'\$"#,")%>>/03"\*(,\*"'5H5')"/."(+35''5D3%2'"5+,2,515+39" ?^>'(D(3") D2.../'B(+,"5+2&'5)" 152+(+,.%'">203(D(>23(/+"&7"?+,'()\*"'520+50)"23" B(..505+3"'5H5')"/."?+,'()\*"'2+,%2,5">0/.(D(5+D79"-+35,0235B"'2+,%2,5" B5H5'/> 15+3J"D/+35+3"'520+(+,J"2+B"/>>/03%+(3(5)"./0"&('(+,%2']&('(350235" B5H5'/> 15+3"205"2>>0/>0(235"2DD/0B(+,"3/"3\*5">0/,021"1/B5'9"
- 5'\$(=\$9#/)E-'//D)6B,7/8)!&(;\$7\$&(,)E-"7)6<99&'7)\*%/=7\$:/(/,,)

- I 2)350"\$'2+"2+B"?+,'() \*"@520+50"PBH() /07"E / 1 1 (3355"F?@PEG"2+B"8() 30(D3" ?+,'() \*"@520+50"PBH() /07"E / 1 1 (3355"F8?@PEG"05, %'23(/+)9LL"
- X9" 4\*5")D\*//")7)351"(+H5)3)"";/V<"7/)'/,&<'=/,"3/")%>>/03"3\*5"D/+B(3(/+)" 05g%(05B"3/"2BB05))"?@"+55B)9"
- E9" P", B, 7/8)&%)=<#7<'"#B)" (;)#\$(+<\$,7\$="#B): "#\$;)" (;)'/#\$"F#/)",,/,,8/(7")%>>/03)"(+)30%D3(/+J"D/+3(+%/%)"(1>0/H515+3J"2+B"2DD/%+32&('(37"./0"2332(+15+3")."?+,'()\*">0/.(D(5+D7J"&('(3502D7J"2+B"2D2B51(D"2D\*(5H515+3)")."))
- 89" ! "9"=\$7B)F<\$#;\$(+"/DD%0)"23"2''"'5H5')"/."3\*5")7)351J"(+D'%B(+, "#/";/',-\$9);/:/#&98/(7"3/"%+B50)32+B"2+B"2BB05))"3\*5"+55B)"/."?+,'()\*"'520+50)9"

E9" ?@"5B%D23(/+2'" !>>0/2D\*5)"2+B">0/,021)"205"B5)(,+5B"3/"&5"=&-/'/(7"2D0/))"
)D\*//')"6(3\*(+"B)30(D3)J"2D0/))"(+(3(23(H5)J"2+B"2D0/))"3\*5")32359"

!'&,,@"#?)&%)7-/)!2)\*.)0&";8"9)5'\$(=\$9#/)"(;)\*#/8/(7,)7&)7-/).!WW)

E0/))62'="	5'\$(=\$9#/)1(/) P))53)T [0(5+35B"2+B" N55B)T A5)>/+)(H5" OD*//')"	5'\$(=\$9#/)E@&) -+35''5D3%2'" `%2'(37"/." -+)30%D3(/+"2+B" I 52+(+,.%'" PDD5))"	5'\$(=\$9#/) E-'//) O7)351" E/+B(3(/+)"3*23" O%>>/03" ?5D3(H5+5))"	5'\$(=\$9#/)W&<') P'(,+15+3"P+B" P03(D%'23(/+" C(3*(+"2+B" PD0/))" O7)351)"
.!25)1 (/) X2)(D" FE/+B(3(/+)"/." @520+(+,6" 452D*50)J" I 2350(2')J" \2D('(3(5)"	?'515+3)" PJ"E"p"?" "	?'515+3)" PJ"XJ"p"8"	?'515+3)" X"p"8"	?'515+3)" PJ"XJ"p"E"
.! 25)E@&) O3235" O32+B20B)" FE/+B(3(/+)"/." @520+(+,6"	?'515+3)" PJ"X"p"?"	?'515+3)" PJ"XJ"\J"p"U"	?'515+3)" X"p"8"	?'515+3)" X"p"E"
.!25)E-'//) \$205+32'" -+H/'H515+3" F?+,2,515+36"	?'515+3)" XJ"8"p"?"	?'515+3" 8"	?'515+3" 8"	?'515+3" E"
. ! 25)W&<') \$%>('" PD*(5H5 1 5+3" F\$%>('" [ %3D/ 1 5)G"	?'515+3" E"	?'515+3)" PJ"XJ"p"E"	?'515+3)" P"p"X"	?'515+3)" X"p"E"

.!25)W\$:/) \$%>('" ?'515+3)" XJ"EJ"p"8"



?+,2,515+3" F?+,2,515+36"

) 32+B20B) J"5H(B5+D5") \* /%'B"&5"2>>'(5B"3/"3\*5"3\*5/053(D2'"/0"D/+D5>3%2'" 1 /B5'J"3\*5" (1 > '5 1 5+323(/+J"2+B"3\*5"'/D2''7"/&) 50H5B"/%3D/ 1 5)"./0"3\*5"B() 30(D39"

- •" k\$0/1()(+,"\%3%05)k"05>/03".0/1"3\*5"N23(/+2'"PD2B51(5)"/."OD(5+D5)J" ?+,(+550(+,"2+B" I 5B(D(+5"FB()D%))5B"2&/H5GLS"
- •" -+)3(3%35"/."?B%D23(/+"OD(5+D5)"\$02D3(D5"U%(B5)"/+"'(3502D7<sup>LQ</sup>"2+B"2D2B5 1 (D" D/+35+3]'2+,%2,5<sup>KM</sup>"
- •" N23(/+2'"@(3502D7"\$2+5'"/+"?+,'() \*"'520+50)<sup>K!</sup>"
- •" 4\*5"E8?a)">%&'(D23(/+"/."05)520D\*T&2)5B">02D3(D5)K#"
- •" [3\*50">%&'()\*5B")7+3\*5)5)"/."05)520D\*"/+"?+,'()\*"'520+50)KL"

 $O\%D^*">\%\&'(D23(/+)")^*/\%'B">0/H(B5"2+"(+(3(2'"(1>53\%)"3/"B()30(D3)"'//=(+,"./0"2+"5H(B5+3(207".//3*/'B"(+3/"3*5(0"05./01"5../03)9"4*23")2(BJ"3*5"D/+D'%)(/+)".0/1"05)520D*"&7"+/"152+)" , %202+355"2>>'(D2\&('(37"2+B"5..5D3(H5+5))"(+"2",(H5+"'/D2'"D/+35^3"j"6(3*"'/D2'"H20(23(/+)"(+"D2>2D(37"./0"(1>'515+323(/+"/0"3*5"2>>0/>0($ 

67" (; "'; )XD) 4 & (\$7&'\$(+)<, /)&%)#&="#) 8 /7'\$=, )&%), B, 7/8)\$ 8 9#/8 / (7"7\$&()"(;)"; <#7)
#/"'(\$(+)&<7=&8/,6)

 $A5)520D^*"/+"5...5D3(H5")7)351)")50H(+,"?+,"()*"'520+50)")>52=)"3/"3*5"(1>/032+3"0/'5"/."D/*505+3"'52B50)*(>9"-+"2">0/D5))"/."D/+3(+%/%)"(1>0/H515+3J"(3"6/%'B"3*505./05"&5"(1>/032+3"3/"B5H5'/>"152+(+,.%'"(+B(D23/0)"/.")7)351"(1>'515+323(/+J")%D*"2))"$ 

- !9" @52B50) \*(>"0/'5) "2+B"05)>/+)(&('(3(5)"./0"?@")3%B5+3) "205"B()30(&%35B"2+B") \*205B9"
- #9" @52B50) \*(>"D05235) "B(..505+3">'2+)"./0"?@")3%B5+3) "&2)5B"/+"(+B(H(B%2'" 5B%D23(/+2'"2+B"'520+(+, "\*()3/0(5) "F59, 9J"B(..505+3(23(+, "&53655+">0/, 02 1)"./0" +56D/150)J"'/+, T3501"?+, '() \*"'520+50)J"2+B"05D'2))(.(5B"?+, '() \*T>0/.(D(5+3" )3%B5+3)69"
- L9" \$0/.5))(/+2'"'520+(+, "()"./D%)5B"/+"D/+35+3">5B2, /, 7J"2D3(H5"'520+(+, J"2+B" D/\*505+3J")%)32(+5BJ"D/''5D3(H5">203(D(>23(/+9"
- K9" @52B50)\*(>"5+,2,5)"(+"+536/0=)"2+B"D/''2&/023(/+)"6(3\*"/3\*50"B()30(D3)"(+" D/+3(+%/%)"(1>0/H515+3">'2++(+,"2+B"2D3(H(3(5))9"
- R9" 8()30(D3"05)/%0D5"2''/D23(/+">0/D5))5)"205"B0(H5+"&7")30235, (D">0(/0(3(5)"./0"?+,'()\*" '520+50)9"

## 67" (; "'; )X"D) 4 & (\$7&'\$(+)<, /)&%)#&="#) 8 /7'\$=,)&%),7<; / (7)#/"'(\$(+),<99&'7,)"(;) 9'&=/,,/,6)

\$0(+D(>'5"46/Y"-+35''5D3%2'"`%2'(37"/."-+)30%D3(/+"2+B" I 52+(+,.%'"PDD5))""

?'5 1 5+3"#P"h"-+35,0235B"2+B"85)(,+235B"?@8""

?'5 1 5+3"#X"h"-+35''5D3%2''7"A(D\*J"O32+B20B)T&2)5B"E%00(D%'%1""

?'5 1 5+3"#E"h"

 $> 0/.5))(/+2'''B5H5'/>15+3'')\%>>/035B''&7'';/&T51&5BB5B''D/2D*(+,"2+B".2D('(323(/+J'''D/%>'5B''6(3*"'52B50)*(>"B5H5'/>15+3"2+B"3*5"&%('B(+,"/."2"D/''2&/023(H5"D%'3%059"O?P@">0/H(B5)"2"3//'=(3"/."05)520D*T&2)5B"(+)30%D3(/+2''')30235,(5)"3*23".(3"(+"3*5"'20,50">5B2,/,(D2'''D/+35^3"/."(+35,0235B"'2+,%2,5"2+B"D/+35+3"(+)30%D3(/+"2+B"D0/))TD/+35+3" 3*5123(D"%+(3)9"$ 

 $\label{eq:continuous} $$\03^*50J''O?P@''05D/, +(c5)''3^*23''12)350(+, "2"D/1>'5^")53"/."+56"(+)30%D3(/+2")30235, (5)" 2+B"D%00(D%'20"2>>0/2D*5)''32=5)''3(15J''05)/%0D5)J''2+B")%>>/03"./0"352D*50)9"452D*50)" 2')/"+55B"/>>/03%+(3(5)"3/")55"3*5">02D3(D5)"&5(+, "1/B5'5B"(+"3*5(0"/6+"D'2))0//1)J" 5+D/%02, 515+3"3/"307"+56")30235, (5)J"2+B"D/+)30%D3(H5".55B&2D=".0/1"2"=+/6'5B,52&'5" 2+B")%>>/03(H5"D/2D*"2+B".0/1"D/''52,%5)9"$ 

P" I 5 1 /02+B% 1 "/."e+B50)32+B(+, "F I [ e%"6(3\*"52D\*">203(D(>23(+,")D\* / /'"B()30(D3" / %3'(+5)" 2'"3\*5"D / 1 > / +5+3)" / ."(1 > '5 1 5+323(/ +J"(+D'\%B(+,";/&T5 1 &5BB5B"D / 2D\*(+,9"

$$\begin{split} &\text{O?P@"()"D\%005+3'7"\&5(+,"(1>'515+35B"23"!M!")(35)"2D0/))"\#M"E2'(./0+(2"B()30(D3)9"4*5)5"}\\ &\text{B()30(D3)"02+,5".0/1"0\%02"FC(''(21)J"E/2'(+,2T<\%0/+J"U/'B5+"\$'2(+)J"I5+B/32J"2+B"}\\ &\text{\(''1/05"e+(.(5B"OD*//'"8()30(D3)G"3/"\%0&2+"F@/)"P+,5'5)"e+(.(5B"OD*//'"8()30(D3GJ"3/")) &\text{\((88.60)B3GMB3}) &\text{\((98.60)B3GMB3}) &\text{\(98.60)B3GMB3} &\text{\((98.60)B3GMB3}) &\text{\(98.60)B3GMB3}) &\text{\((98.60)B3GMB3}) &\text{\(98.60)B3GMB3}) &\text{\(98.6$$

#### \*:\$;/(7\$"'B)C",\$,)

 $O32 + B20B"!"F)\% >> /035B"\&7"2 + "5^()3(+, "05)520D*"\&2)()GY"4*5">0/,021"5^>'(D(3'7")3235)" 3*055"./% + B23(/+)"3*23"B026".0/1"05)520D*")7 + 3*5)5)"/+ "5..5D3(H5"(+)30%D3(/+"2+B"3*5" (1 > /032 + D5"/."2335 + B(+, "3/")3%B5 + 3"'2 +, %2,5"B5H5'/> 15 + 39^{KV"}$ 

O32+B20B"#2"F'/D2" 1530(D)"/.")3%B5+3"'520+(+,")%>>/03)"2+B">0/D5))5)GY"4\*505"62)"2+"

O32 + B20B"L"F)3%B5 + 3"'520 + (+, "/%3D/15)GY" - + "2".(H5"7520" > ('/3"5H2'%23(/+")3%B7J"O?P@")

 $\begin{array}{l} C*('5"3*5"@4?@"'2\&5'"62)"D05235B"3/"./D\%)"2335+3(/+"/+"2+"/H50'//=5B"2+B"\%+B50)50H5B" \\ >/>\%'23(/+J"3*5"'2\&5'"*2)"\&55+"D0(3(g\%5B"2)">50>53\%23(+,"2"B5.(D(3">50)>5D3(H5)^{KS"} \\ </65H50J"O2+,50"2+B"\setminus(05\&2\%,*"*2H5"32=5+"2")7)351(D"2>>0/2D*"3/"(1>'515+3(+,"D'2))0//1J")D*//'J"2+B"B()30(D3">02D3(D5)"3*23"&53350")\%>>/03")3\%B5+3)3"'2+,%2,5"2+B" \\ D/+35+3"'520+(+,9"4*0/\%,*"3*5"(+(3(23(H5J"3*5"B()30(D3))"*2H5"3*/\%,*3"B55>'7"2&/%3"*/6"3/"&%('B"/+")3%B5+3)3"2))53)9"\/0"5^21>'5J"(+./015B"&7"05)520D*")*/6(+,"3*23"?+,'()*"'520+50)"(+"B%2'T'2+,%2,5">0/,021)"*2H5"&53350"'/+,T3501"'2+,%2,5"2+B"D/+35+3"/%3D/15)J"O2+,50"*2)"B5H5'/>5B"2+B"'2%+D*5B"2"+56"B%2'T'2+,%2,5">0/,0219"-+"2BB(3(/+J)^*&2)5B"/+"(+350+2'"B232"2+2'7)()")*/6(+,"3*23"?+,'()*"'520+50)"6*/">203(D(>235B"(+"3*5"B()30(D3a)">05)D*//'">0/,021"6505"2332(+(+,"?+,'()*">0/.(D(5+D7"520'(50J"O2+,50"*2)"D/11(335B"3/"5^>2+B(+,"(3)"/%3052D*"3/".21('(5)"3/"5+D/%02,5"1/05">205+3)"/."?+,'()*"'520+50)"3/"5+0/""3*5(0"D*('B05+"(+">0/)"3*5(0"D*('B05+"(+">0/)"3*5(0"D*('B05+"(+">0/)"3*5(0"D*('B05+"(+">0/)"3")"/"">0/$ 

#### \*:\$;/(7\$"'B)C",\$,)

 $O32 + B20B"!"F)\% >> /035B"\&7"2 + "5^()3(+, "05)520D*"\&2)()GY"4*505"()"'(33'5")7)35123(D"05)520D*" 3*23") >52 =) "3/"3*5"5...(D2D7"/."D0/))TB()30(D3"D/''2&/023(/+J^{KQ}"2'3*/%, *"3*505"()"2", 0/6(+, "=+/6'5B, 5"&2)5"/+"352D*50">0/.5))(/+2'"D/''2&/023(/+"2+B"/+"05)520D*">02D3(D5T >> 203+50)*(>)<math>9^{RM}$ "O2+, 50a)"2>> 0/2D\*"3/"05./01"3\*23")%>> /03)"(3)"352D\*50">0/.5))(/+2'" '520+(+, "D%''3%05"2+B"2"./D%)"/+")3%B5+3"'520+(+, "\*2)"&55+"65''TB/D% 15+35B9^R!"

 $O32 + B20B"#2"F'/D2'" 1 530(D)"/.")3\%B5 + 3"'520 + (+,")\% >> /03)"2 + B">0/D5))5)6Y"O3\%B5 + 3"6 /0 = " *2)"2'627)", \% (B5B" 1 \%D*"/."3*5"6 /0 = "/."352D*50" \$@E)9" I /05"05D5 + 3'7J"3*0/\%, *"3*5" > 203+50)*(>J"O2+,50"2+B" \ (05&2\%, *"352D*50)"*2H5", 23*505B")2 1 > '5)"/.")3\%B5 + 3"$ 

O32+B20B"L"F)3%B5+3"'520+(+,"/%3D/15)GY"E/+)()35-3'7")30/+,")3%B5+3"123\*")D/05)"/+"3\*5" EPPO\$\$"3\*23"5^D55B5B"5^>5D323(/+)"./0"U20B5+"U0/H5"6505"+/35B"(+"2"05>/03"3\*23" 2+2'7c5B"B232"./0"B()30(D3)">203(D<23(+,"(+"  $B27)"/."302(+(+,"3/"'520+"2\&/\%3")3\%B5+3"5'(,(&('(37"3/"EOe"2+B"eE"D21>\%)5)")/"3*23"3*57"\\ D/\%'B"&53350"(+./01")3\%B5+3)"2&/\%3"3*5(0">/)3T)5D/+B207"/>3(/+)9""$ 

 $4*5"D/1 &(+23(/+"/."3*5" ">2D=53)"2+B"./''/6T%>"D/+H50)23(/+)"&7"*(,*")D*//'" D/%+)5'/0)"6(3*"\05)+/"e+(.(5B"OD*//"8()30(D3")5+(/0)"'5B"3/"2+"(+D052)5"(+")3%B5+3" 2>>'(D23(/+$ 

O32 + B20B"L"F)3%B5 + 3"'520 + (+, "/%3D/15)GY"4\*5"B()30(D3"\*2)"'//=5B"23"3\*5"./%0T7520"D/\*/03", 02B%23(/+"0235"F(+D052)(+, ".0/1"VQ">50D5+3"(+"#MMQh!M"3/"ZQ">50D5+3"(+"#M!Lh!KG"2+B"365'.3\*", 02B5")3%B5+3)a"P

# Α

# 299/(;\$S)2D)\*.)0&";8"9)5&#\$=B)

$$\begin{split} & E2'(./0+(2"?+,'()*"@520+50"A/2B12>"O3235"X/20B"/."?B\%D23(/+"\$/'(D7Y""?B\%D23(/+2"\$0/,021)"2+B"O50H(D5)"./0"?+,'()*"@520+50)"\\ & 4*()">/'(D7"()"(+35+B5B"3/"2))()3"3*5"E2'(./0+(2"85>20315+3"/."?B\%D23(/+"(+">0/H(B(+,",\%(B2+D5"3/"'/D2""5B\%D23(/+2""2,5+D(5)"F@?P)G"(+"65'D/1(+,J"%+B50)32+B(+,J"2+B"5B\%D23(+,"3*5"B(H50)5">/>%'23(/+"/.")3\%B5+3)"6*/"205"?+,'()*"'520+50)"2335+B(+,"E2'(./0+(2">%&'(D")D*//')9"I2+7"?+,'()*"'520+50)"05>05)5+3"3*5"+565)3"151&50)"/."/%0" \end{split}$$

4\*5"O3235"O52"'' / "X('(3502D7"5+D/%02,5)"B()30(D3)"3/"05D/, +(c5")3%B5+3)a"&('(350235">0/.(D(5+D79"85H5'/>(+,"2))5)) 15+3)"(+"'2+,%2,5)"/3\*50"3\*2+"?+,'()\*"3\*23"205"2'(,+5B"3/")3235"2D2B5 1 (D")32+B20B)"F59,9J"3\*5"E2'(./0+(2"O>2+()\*"P))5)) 15+36"205"=57"3/"05D/,+(c(+,"&('(3502D7"2+B"2D2B5 1 (D"2D\*(5H5 15+3"(+" 1 /05"3\*2+"/+5"'2+,%2,59"4\*5">2))2,5"/."3\*5"E2'(./0+(2"?B%D23(/+"./0"2"U'/&2'"?D/+/17"-+(3(23(H5J"=+/6+"2))"\$0/>/)(3(/+"RS"F2 15+B(+,"\$0/>/)(3(/+"##Z6J" 1/H5)"%)"&57/+B"(1>0/H5 15+3"5../03)"./D%)5B")/'5'7"/+"'2+,%2,5"/."(+)30%D3(/+"3/">0/.021)"2+B">23\*627)"3\*23"5..5D3(H5'7"B5H5'/>"2D2B5 1 (D"D/+35+3"=+/6'5B,5J"B()D(>'(+5T)>5D(.(D">02D3(D5))"2+B"2D2B5 1 (D"'2+,%2,5"%)5)J"2+B"&('(+,%2'T&('(350235">0/.(D(5+D79")")")))))

$$\begin{split} & \quad E2'(./0+(2a) @/D2''E/+30/''' \lor +B(+," \lor /0 1 \%'2"F@E \lor \lor ("()">05 1 () 5B"/+"'/D2''B() 30(D3)" \\ & \quad >0/H(B(+,"5g\%(32\&'5"'520+(+,"D/+B(3(/+)J">>>("'/\%3D/15)J"2+B"5..5D3(H5"5+,2,515+3"/." ?+,'()*"'520+50)9"8()30(D3)"205"5^>5D35B"3/")53J"6(3*"3*5(0">205+3"2+B"D/118+(37">>203+50)J"152+(+,.%''',/2')"2+B"/%3D/15)"3*23"05g\%(05".%''''2DD5))"3/"3*5"D\000(D\000'\00041J" 2))\0005"?+,'()*"'520+50)a"152+(+,.%'''>0/,05))"3/620B"2332(+(+,"2D2B51(D"?+,'()*">0/.(D(5+D7J"2+B"D'/)(+,",2>)"(+"2D2B51(D"2D*(5H515+3"./0")3\0008B5+3)"5+350(+,",2)"?+,'()*"'520+50)9"@E \\">0/H(B5)"B()30(D3)"2BB(3(/+2'''05)/\0008D5)9"O3235T>0/B\0008B'B/D\000815+3)">0/H(B5)"D/*505+3",\0008(B2+D5"./0"B()30(D3)"/+"(1>'515+3(+,"1/05"2+B"&53350"D/150+50)"H(2"3*5"@/D2'''E/+30/'''2+B"PDD/\0008+32&('(37"$'2+"F@EP$G">0/D5))J"2+B">0/H(B5)")\0008>>/03"./0"D/+3(+\0008)"(1>0/+3(+\0008)"))>>/03"./0"D/+3(+\0008)"(1>0/+515+3)""$$

 $[\ \%0"2DD/\%+32\&('(37")7)\ 35\ 1\ "()")\ 3235TB5350\ 1\ (+5BJ"2+B"()"D/+)()\ 35+3"6\ (3*".5B502'",\%(B2+D5")\ 30/H(B5B"./0")\ 3235)\ "3/"(1>'5\ 15+3"3*5"?H507"O3\%B5+3"O\%DD55B)"PD3"F?OOPGJ"6*(D*")\ 30/H(B5B"./0")\ 30/H(B5B)\ 30/H(B5B)\$ 

 $U(H5+"?OOPa)"4(3'5"---">0/H()(/+)J"E2'(./0+(2"6(''"05T5^21(+5")32+B20B(c5BJ")32356(B5"?@"5+302+D5"2+B"5^3(3">0/D5B%05)"2+B"D0(350(2J"2+B"05>/03"2D2B51(D">50./012+D5"/."=57")%&D235, /0(5)"/."?+, '() *"'520+50)J")%D*"2)"'/+, T3501"?+, '() *"'520+50)"2+B")3%B5+3)"6(3*"B()2&('(3(5)9"4*5"&0/2B50".5B502'")32+D5"/+"1%'3(>'5"(+B(D23/0)"/.">50./012+D5"2')/"D/1>'515+3)"/%0")7)351a)"%)5"/."1%'3(>'5")3235"2+B"'/D2''7TD/''5D35B"(+B(D23/0)"/+"2D2B51(D"2D*(5H515+3J"?@">0/,05))J"*(, *")D*//'",02B%23(/+J"D*0/+(D"2&)5+355()1"2+B")3%B5+3")%)>5+)(/+J")D*//'"D'(1235"2+B">205+3"5+,2,515+3"3/"2BH2+D5"2"1/05"D/1>'535">(D3%05"/."B()30(D3">0/,021"5..5D3(H5+5))9""$ 

 $4*()">/'(D7"2') / "05.'5D3)"3*5"D\%05+3"+23(/+2'"05)520D*"D/+)5+)\%)"/+")5D/+B"'2+,\%2,5" \\ '520+(+,J"&('(+,\%2'()1J">0/,021"5..5D3(H5+5))J"2+B">/'(D7"05)520D*^VMJ"1\%D*"/."6*(D*"()"D/+)()35+3"6(3*"520'(50")7+3*5)5)".0/1"3*5"E2'(./0+(2"85>20315+3"/."?B\%D23(/+$ 

- •" P>>0/>0(235"2))5)) 15+3"(+"H20(/%)"./01)"F59,9J"./0123(H5J"&5+D\*120=J")%1123(H5G"3/"%+B50)32+B"2+B")%>>/03")3%B5+3"'520+(+,""
- •" \$0/D5))5)"05'235B"3/")/D(2'"51/3(/+2'"B5H5'/>15+3"2+B"(B5+3(37"./0123(/+""

$$\begin{split} & \quad E2'(./0+(2"()"2")3235"3*23"65'D/\ 15)"+56D/\ 150)"2+B"3*5(0".2\ 1\ ('(5)J"2+B"3*23"2BB05))5)"\\ & \quad 3*5(0"'(+,\%()3(D"B(H50))(37"6(3*"2">/)(3(H5J"2BB(3(H5"/0(5+323(/+9"[\ \%0")D*//)"+55B"3/"05.'5D3"\ 3*()"/0(5+323(/+"&7"2..(0\ 1\ (+,J"65'D/\ 1\ (+,"2+B"05)>/+B(+,"3/"2"B(H50)5"02+,5"/.")3\%B5+3"\ )305+,3*)J"+55B)J"2+B"(B5+3(3(5)J"2+B">05>205",02B%235)"6(3*"3*5"'(+,\%()3(DJ"2D2B5\ 1\ (D"2+B")/D(2'")=('')"2+B"D/\ 1>535+D(5)"+55B5B"./0"D/''5,5J"D20550"2+B"D(H(D">203(D(>23(/+"(+"2",3'')B(H50)5"2+B")B'')-10(B)") )5"2+B"18''(1,\%2'')-10(B)" ]2" \end{split}$$

# ! "#\$%&'(\$"\,)]\$,\$&()&\)6<==/,,)\\&')\*(+#\\$,-)./"'(/',)

?+, '()\*"'520+50)".%''7"2+B" 1 52+(+,.%''7"2DD5))"2+B">203(D(>235"(+"2"#!)3"D5+3%07"5B%D23(/+".0/1"520'7"D\*('B\*//B"3\*0/%,\*",02B5"365'H5"3\*23"05)%'3)"(+"3\*5(0"2332(+(+,"\*(,\*"'5H5')"/."?+,'()\*">0/.(D(5+D7J"12)3507"/.",02B5"'5H5'")32+B20B)J"2+B"/>>/03%+(3(5)"3/"B5H5'/>">0/.(D(5+D7"(+"1%'3(>'5"'2+,%2,5))"

### 4\$,,\$&()

# W&<')5'\$(=\$9#/,)

#### 5'\$(=\$9#/)^XD)0HE\*..\*!E[2.)U[2.0E`)1W)0H6E0[!E01H)2H3)4\*2H0HLW[.) 2!!\*66)

 $?+, '()*"'520+50)"5+, 2, 5"(+"(+35"'5D3\%2"'7"0(D*J"B5H5'/>15+32"'7"2>>0/>0(235"'520+(+, "54.5))"3*23"./)350"*(, *"'5H5')"/."?+, '()*">0/.(D(5+D79"4*5)5"5^>>50(5+D5)"(+35,0235"'2+, %2,5"B5H5'/>15+3J"'(3502D7J"2+B"D/+35+3"'520+(+, "2)"65""2)">0/H(B5"2DD5))"./0"D/1>05*5+)(/+"2+B">203(D(>23(/+"3*0/%, *"+23(H5"'2+, %2,5"(+)30\%D3(/+"2+B")D2../'B(+,9"?+,'()*"'520+50)"*2H5"152+(+,.%'"2DD5))"3/"2".%''")32+B20B)T&2)5B"2+B"05'5H2+3"D%00(D%'%1"2+B"3*5"/>>/03%+(37"3/"B5H5'/>">0/.(D(5+D7"(+"?+,'()*"2+B"/3*50"'2+,%2,5))"$ 

# 5'\$(=\$9#/)^YD)6`6E\*4)! 1H30E01H6)EZ2E)6[5510E)\*WW\*!E0]\*H\*66) ?2D\*"'5H5'"/."3\*5")D\*//'")7)351"F)3235J"D/%+37J"B()30(D3J")D\*//'J">05T)D\*//'G"\*2)"'52B50)" 2+B"5B%D23/0)"6\*/"205"=+/6'5B,52&'5"/."2+B"05)>/+)(H5"3/"3\*5")305+,3\*)"2+B"+55B)"/." ?+,'()\*"'520+50)"2+B"3\*5(0"D/11%+(3(5))J"2+B"%3('(c5"H2'(B"2))5))15+3"2+B"/3\*50"B232" )7)351)"3\*23"(+./01"(+)30%D3(/+"2+B"D/+3(+%/%)"(1>0/H515+3i"05)/%0D5)"2+B"3(505B" )%>>/03"()">0/H(B5B"3/"5+)%05")30/+,">0/,021)"2+B"&%('B"3\*5"D2>2D(37"/."352D\*50)"2+B" )32.."3/"&%('B"/+"3\*5")305+,3\*)"2+B"1553"3\*5"+55B)"/."?+,'()\*"'520+50)9"

# A B: A

- •" PPO\$\$\forall \text{"E2'(./0+(2"P))5)} 15+3"/."\text{"O3\\B5+3"}\$50./012+\D5"2+\B"\$0/,05)}""
- •" **P**"?B9U9?9"-+(3(23(H5\"4 \* 5"E2'(./0+(2"?B%D23(/+"./0"2"U'/&2'"?D/+/17"-+(3(23(H5"
- •" **&**A Y"4\*5"E2'(./0+(2"?+,'() \*"@520+50"A/2B12>Y"O305+,3\*5+(+," E/1>05\*5+)(H5"?B%D23(/+2'"\$/'(D(5)J"\$0/,021)J"2+B"\$02D3(D5)"./0"?+,'() \*" @520+50)""
- •" EP4Y"E/+H50)23(/+"P+2'7)()"4//""
- •" E8?\"E2'(./0+(2"85>20315+3"/."?B\D23(/+""
- •" E?@84Y"E2'(./0+(2"?+,'() \*"@2+,%2,5"85H5'/>15+3"45)3""
- •" EOPY"E2'(./0+(2"O>2+()\*"P))5))15+3""
- •" EOeY"E2'(./0+(2"O3235"e+(H50)(37""
- •" ?EY"?B%D23(/+"E/B5""
- •" ?@Y"?+,'()\*"'520+50"F2&&05H(23(/+"%)5B"./0"2B;5D3(H5)"/+'7J"+/3"6\*5+"%)5B"2)"2" +/%+6""
- •" ?@PY"?+,'()\*"'2+,%2,5"203)""
- •" ?@PEY"?+,'() \*"@520+50"PBH() /07"E / 1 1 (3355""
- •" ?@8Y"?+,'() \*"'2+,%2,5"B5H5'/>15+3""
- •" ?@"A/2B12>"\$/'(D7\"E2'(./0+(2"?+,'() \*"@520+50"A/2B12>"O3235"X/20B"/." ?B\D23\(/+\"\\$/'\(D7\"\"\?B\D23\(/+2\"\\\$0/,021\)\"2+B\"O50H\(D5\)\"./0\"?+,'\() \*\"\@520+50\)\"
- •" 8?@PEY"8()30(D3"?+,'() \*"@520+50"PBH() / 07"E / 1 1 (3355""
- •" ?@\$PEY"?+,'() \*"@2+,%2,5"\$0/.(D(5+D7"P))5))15+3)"./0"E2'(./0+(2""
- •" ?O?PY"?'515+3207"2+B"O5D/+B207"?B%D23(/+"PD3""
- •" ?OOPY"?H507"O3%B5+3"O%DD55B)"PD3""
- •" -?\$\"-+B(H(B\%2'(c5B\"5B\%D2\3(/+\">0/,021\"\"
- •" -<?Y"-+)3(3%3(/+"/."\*(,\*50"5B%D23(/+""
- •" @EP\$\"@/D2'"E/+\30/'"2+B"PDD/\%+\32&('(\37\\\$'2+\\"
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• "

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