C DUdU >c~c DUi`c =ž U]bXU ^cj Ya ž YbWtbhfci G~c @i \pm g A Uf]U ; f][b]cb XY A cbhZcfhY UdfYbXYi Wta Y`Y U Ua Uf U A ~Y XY 8 Yi g" J Y^U Uei] c ei Y Y`Y X]n XUei Y`Y ei Y f Wtbg]XYfUXc c "a U]cf XYj chc XU J]f[Ya "GUbh \pm gg]a U"

75FH5 8C D5D5 >CÇC D5I @C = ÆG: 5A &@=5G A CB: CFH=B5G GC6F9 5 8CI HF=B58C G9I: I B858CF



dYfa UbYWi dfUh]Wa YbhY XYgWtb\YVJXc dcf a U]g XY i a gfW `c" E i UbXc Z]bU`a YbhYž ei UgY dcf UWUgcž Ya % (& Zc] XYgWtVYfhc Y Ya % (' Zc] di V`]WUXcž hYj Y gi Wyggc]a YX]Uhcž fYj Y`UbXc!gY i a U cVfU XY YZJWJ.bVJU YI hfUcfX]bzf]U dUfU U X]Zi g~c XU [j YfXUXY]fU XYj c, ~cî { J]f[Ya GUbhtgg]a U" 9i dfŒdf]cž bcg Ubcg XU a]b\U ^i j Ybhi XYž h]fY] [fUbXYg VYbYZtWJcg XU `Y]hi fU XYghY `]j fcž bc ei U` [YbWtbhfY] U fYgdcghU { g a]b\Ug dYfd`YI]XUXYgî XYj]XUg Uc fYWf]c ei Y c Wi `hc U A Uf]Už [X]`UhUbXc!gY YI Wygg]j Ua YbhYžUWVVUggY dcf Wta dfca YhYf U gi dfYa UWJU Xc Wi `hc XYj]Xc U 7f]ghcî fB ca Y a]ghff]cždz["', Ł" GcV U cf]YbhU, ~c gzV]U XY G~c @i tg A Uf]U Wta dfYYbX] ei Yžei UbXc gY j]j Y c a]ghff]c XY A Uf]U Ya 7f]ghcžYggY f]gwt b~c gi Vg]ghY" C dYbgUa Ybhc a Uf]c`Œ[]Wt Xc GUbhcž XY ZJWtcž [Yghz fUX]WUXc bc A]ghff]c hf]b]hzf]c Y bU j YfXUXY XU 9bWJfbU, ~c Xc J YfVc XY 8 Yi g'f]V]X"Ł"

 $5 = [fY'UZ XYgXY Ug gi Ug cf][YbgZ Y gcVfYhi Xc bcg a ca Ybhcg a U]g X]Z$Wf]gZ WbhYa d`ci Wa dUfh]W `Uf]bhYbg]XUXY ia Xcg UWbhYWA Ybhcg XU DU]I ~c XY >Ygi g 7f]ghcZfYZYf]Xc U G~c >c~c. Í>i bhc { Wfi n XY >Ygi g YghUj Ua <math>ZXY dfZgi Ua YY U]fa XY gi Ua YZA Uf]UZUa i `Yf XY 7`cdUgZY A Uf]U A UXUYbU" 9bh~cZ>Ygi gZUc j Yf U`] XY df U gi Ua YY c X]gWtdi `c ei Y 9`Y Ua Uj UZX]ggY { a Y. [A i `YfZY]g c hYi Z]`\c^î "8Ydc]gZX]ggY Uc X]gWtdi `c. [9]g U hi Ua Y^î "9ZXYgXY Uei Y`U \cfUZc X]gWtdi `c UWt`Yi!U Wa c gi UÎ fbc % Z&)!&+L" 5c `cb[c XU gi U \]ghŒ[UZc Dcj c XY 8 Yi g YI dYf]a Ybhci YghU XcU, ~c ZY]hU dcf >Ygi g Wfi WZ]WUXc. U XcU, ~c XU gi U A Y" A Uf]U GUbhtgg]a U f j YfXUXY]fUa YbhY U bcggU A ~Yžei Y bcg UWta dUb\U bU bcggU dYfY[f]bU, ~c XY ZfZYgdYfUb, U Y Wwf]XUXY fi a c$



 $\{ib\}\sim WUXUjYnaU]g]bhYbgUWta7f]ghcž•b]WtgU`jUXcfYaYX]UXcfXUgU`jU, ~cfWZ"7cbgh"@iaYb'[Ybh]iaž*$Y'*&Ł"$

7 ca c gY gUVYž bc a Yi VfUg~c Yd]gWtdUʻž ei Y f U]'i ghfU, ~c g]a VŒ]WU Xc hYl hc Yj Ub[f]Wt UW]a U W]hUXcžc a chY Hchi g hi i g Yghz]bgd]fUXc bU Xci hf]bU XY G~c @ ‡g A Uf]U ; f][b]cb XY A cbhZcfh fWZ 8 ca Y a]ghff]cž dz[g"',!'-. F cgUf]i a J]f[]b]g A Uf]UYž % Ł" 9ghUg Xi Ug dUʻUj fUg Yl df]a Ya U dYfhYb, U hchUʻU >Ygi g dcf a Y]c XY A Uf]U. [Hi i g hchi g Y[c gi a ž Yh ca b]U a YU hi U gi bhì ž YgWfYj Y G~c @ ‡g A Uf]U/ Y hfUXi n. [9i gci hcXc hYi ž Y hi Xc c ei Y f a Yi hY dYfhYbWʻž a Yi Ua zj Y` >Ygi gž dcf a Y]c XY A Uf]Už hi U GUbhU A ~YÎ fHfUhUXc gcVfY U j YfXUXY]fU XYj c, ~cž &' ' Ł" 5 Xci hf]bU XYghY GUbhc Yl YfWi i a U dfcZ bXU]bZi .bWJU gcVfY U XYj c, ~c a Uf]UbU XY a i]hcg Z]f]g Y gcVfY U a]b\U dfcEdf]U j]XU" HfUhU!gY XY i a U Xci hf]bU j]j]XUž XY [fUbXY dfcZ bX]XUXY UgWfh]WU Y a ‡gh]WbZ Yl dfYggU Wta i a Ygh]`c j]i c Y ZYfj cfcgcžei Y i gU Wta ZfYei .bWJU]a U[Ybg Y gta Vc`cg" 5 dUfh]f Xc hYa dc Ya ei Y G~c @ ‡g A Uf]Uj]j Yi žU hYc`c[]Ua Uf]UbU Wtbhi Xc XYgYbj c`j Yi !gY a i]hcž gcVfYhi Xc a YX]UbhY c Wtbhf]Vi hc XYWJg]j c Xc 7 cbWt]c J Uh]WUbc = Dcf WtbgY[i]bHYž\c^Yž XYj Y gYf `]XU bcj Ua YbhY Y]bhYfdfYhUXU { `i n Xc 7 cbWt]c U Xci hf]bU a cbZcfh]bUžei Y WtbqYfj U`XY'][i U`a cXc Uʻqi Uʻqi VqhUbWJU`j U`]XUXY"

7ca YghU 7UfhU Xcg YgWf]hcg XY G~c @i ‡g A Uf]Užei Y bcg U'i XUa bYghYg a ca Ybhcg X]Z‡Wf]g'U'U`]a YbhUf'U'bcggU'WbZ]Ub, U'bU'a YX]hU, ~c XU'A ~Y'Xc GYb\cf"

5X = Ygi a 'dYf'A Uf]Ua



 $G\text{-c} @ \ddagger g \text{ A Uf}] U \ dfcd" \text{ Y Wta} \quad g]b[i`Uf \text{ YZ}]W]..bW]U U \ WtbhYa d`U, \ \sim c \ Ua \ cfcgU \ Xc \ a \]ghff]c \ XU \ 9bWUfbU, \ \sim c" \ 5 \ j \ YfXUXY]fU \ XYj \ c, \ \sim c \ a \ Uf]UbU \ f \ Wf]ghcW.bhf]WU" \ 7 \ ca \ YZY]hcž \ Wta \ c \ fYWtfXci \ c \ 7 \ cbWt]c \ J \ Uh]WUbc \ \implies z \ [U = [fY'Už \ a \ YX]hUbXc \ d]YXcgUa \ YbhY \ bU \ J]f[Ya \ z \ Y \ WtbhYa \ d`UbXc! U \ { `i n Xc \ J \ YfVc \ ZY]hc \ `ca Ya z \ dYbYhfU \ a \ U]g \ dfcZ \ b XUa \ YbhYz \ WXY]U \ XY \ fYgdY]hcž \ bc \]bgcbXzj Y` \ a \]ghff]c \ XU$



9bWJfbU, ~cî fl7cbgh"@i a Yb [Ybh]i a ž*) Ł"

C Ua cf XY 8 Yi g a YX]UbhY U i b]~c U >Ygi g 7f]ghc f U Z]bU`]XUXY XY ei U`ei Yf XYj c, ~c Ui h.bh]WUzdcfei Y Wta c YgWfYj Y G~c @ tg A Uf]U 7f]ghc [f c bcggc •b]Wt a YghfY Y XYj Y]bghfi]f!bcgzc bcggc •b]Wt GYb\cf Xc ei U` XYj Ya cg XYdYbXYfžUbcggU •b]WU 7 UVY, U { ei U` XYj Ya cg dYfa UbYWf i b]Xcgz c bcggc •b]Wt a cXY`c Wta c ei U` bcg XYj Ya cg WtbZcfa Ufžc bcggc •b]Wt a fX]Wt ei Y bcg XYj Y W fUfžc bcggc •b]Wt dUghcf ei Y bcg XYj Y U`]a YbhUfžc bcggc •b]Wt WWa]b\c ei Y bcg XYj Y j]j]Z]WWf Y c bcggc •b]Wt hi Xcž Ya hcXUg Ug Wt]gUgžei Y bcg XYj Y gUh]gZUnYfî fHfUhUXc gcVfY U'j YfXUXY]fU XYj c, ~cž*%L"

5 XYj c, ~c { GUbhJ J]f [Ya f i a a Y]c df]j] `Y[]UXc [dUfU YbWbhfUf >Ygi g 7f]ghcž dUfU c Ua Uf Wta hYfbi fU Y dUfU c gYfj]f Wta Z]XY`]XUXYÎ fHfUhUXc gcVfY U j YfXUXY]fU XYj c, ~cž*&£" 9ghY XYgY'c WbhfU` XY [Ua Uf Wta hYfbi fUÎ f]a YX]UhUa YbhY X]`UhUXc bi a U ZYfj cfcgU cfU, ~c U >Ygi gž dYX]bXc U [fU, U XY dUfh]W]dUf bU]bX]ntJ Y` Wta i b\~c XY Ua cf ei Y YI]ghY YbhfY 9`Y Y U gi U A ~Y" 5 fY`Uh]j]XUXY hchU` XY A Uf]U U 7f]ghcž Yž b \mathfrak{B} Yž { GUbhtgg]a U Hf]bXUXYž f UbhYg XY a U]g YI dYf]a YbhUXU bU cVgYfj U, ~c. [HcXUg Ug y YnYg ei Y dYbgUg Ya A Uf]U`ci j U Y \cbfU Wtbh][c U 8 Yi g" A Uf]U f hcXU fY`Uh]j U U 8 Yi gž Y Yi WX Ua z!`U!]Ua i]hc VYa U fY`U, ~c XY 8 Yi gžei Y YI]ghY i b]Wa YbhY Ya fY`U, ~c U 8 Yi gž C YWt XY 8 Yi gžei Y b~c X]n Y b~c fYdYhY U b~c gYf 8 Yi g" GY X]nYg A Uf]Už Y`U fYdYhY 8 Yi g" GUbhU =gUVY` `ci j ci A Uf]U Y dfcWUa ci !U VYa !Uj Ybhi fUXU dcfei Y UWfYX]hci " A Uf]U c YWt Z]Y` XY 8 Yi g Ybhcci . A U[b]Z]WhUb]a U a YU 8 ca]bi a . U a]b\U U`a U`ci j U U C GYb\cf" 5 ei]`c ei Y A Uf]U ZYn bUei Y`U cWUg]~cž fYdYhY!c hcXcg cg X]Ug" Ei UbXc f `ci j UXUž Ua UXUž \cbfUXU ci fYWfYY U`[cž8 Yi g f `ci j UXcž8 Yi g f Ua UXcž8 Yi g fYWfVY dY`Uga ~cg XY A Uf]U YYa 'A Uf]UÎ 'fHfUhUXc gcVfY'U'] YfXUXY]fU'XYj c, ~cž&&) Ł"

v U]bXU bU cfU, ~c { A ~Y Xc GYb\cf ei Y G~c @i \ddagger g A Uf]U YI df]a Y U X]a Ybg~c hf]b]hzf]U XU gi U fY`U, ~c Wta 8 Yi g. [GU• Xc!hY A Uf]Už:]`\U dfYX]`YhU Xc DU] YhYfbc° GU• Xc!hY A Uf]UžA ~Y UXa]fzj Y` Xc:]`\c° GU• Xc!hY A Uf]Už9gdcgU Z]XY` \ddagger gg]a U Xc 9gd \ddagger f]hc GUbhc°î fGY[fYXc XY A Uf]Už*, \ddagger " 9ghU hfUX]W]cbU` YI dfYgg~cž′z i gUXU dcf G~c: fUbW]gWt XY 5gg]g fWZ": cbhYg: fUbW]gWUbUgž&, %tža Yga c WtbhYbXc b \ddagger y]g \YhYfc[fbYcg XY UbU`c[]UžfgYa X•j]XU YZ]WUn dUfU YI df]a]f XY WYfhU Zcfa U U dYWi`]Uf dUfh]W]dU, ~c XY B cggU GYb\cfU bU'j]XU`XU`GUbhtgg]a U`Hf]bXUXY"

G~c @ \pm g A Uf]U W&bhYa d`U hcXcg cg a]ghff]cg XU 9bWUfbU, ~c ei Y gY fYU`]nci bc a ca Ybhc XU 5bi bWJU, ~c" 5gg]a ž bc HfUhUXc gcVfY U j YfXUXY]fU XYj c, ~cž A Uf]U f UdfYgYbhUXU W&a c íc j YfXUXY]fc dUfU \pm gc hYffYghfY Xc B cj c 5X~cî ž U íhYffU j]f[Ya Y]a UW`UXUÎ dY`U ei U` 9`Y Zc] d`Uga UXc fb" &* %£" 9`U f hUa V fa U B cj U 9j Už UggcWJUXU Uc B cj c 5X~c bU cVYX]..bWJU ei Y fYdUfU U XYgcVYX]..bWJU cf][]bU` Xc \ca Ya Y XU a i `\YffWZ"]V]X"ž)' / GUbhc = fYbYi 5Xj Yfgi g \UYfYgYgž == &% %! &&ž (\£" Dcf a Y]c XYghU cVYX]..bWJUž c :]`\c XY 8 Yi g YbhfU bc a i bXc" 5 a Yga U 7fi n ½ Yghz a]ghYf]cgUa YbhY dfYgYbhY bc a ca Ybhc XU 9bWUfbU, ~cžbc a ca Ybhc Ya ei Y >Ygi g f WbWYV]Xc bc gY]c XY A Uf]U" 7 ca YZY]hcžc YWWY j Yb]cž XU 7 UfhU Ucg < YVfYi g fWZ" %\$ž)!- £ f c UWhc df]a cfX]U` XU cVYX]..bWJU Xc :]`\c Uc DU]ž UWY]hU, ~c Xc gYi GUWf]ZtWJc fYXYbhcf Íei Ub,Xc YbhfU bc



a i bXcl"

A Uf]Uža Ya Vfc Ya]bYbhY Xc 7cfdc a ‡gh]Wc Y A ~Y XU =[fY'U

GY[ibXc Uq dU'Uj fUq Xc 7cbWt]c J Uh]WUbc =ž A Uf]U Í f qUi XUXU Wta c a Ya Vfc Ya]bYbhYY]bhY]fUaYbhYg]b[i`UfXU=fY'UžgYi h]dcYYIYa d`UfdYfZY]htgg]a cbUZfYbUWUf]XUXYÎ f7cbqh"@i a Yb [Ybh]i a ž) ' Ł" 5 A ~Y Xc F YXYbhcf f hUa V fa fYX]a]XU dcf Y`YžXY a UbY]fU • b]WU bU gi U = a UW `UXU 7 cbW], ~cžY dfYWXYi !bcg bUei Y`U YgW hU WfYbhY Y WX Y]U XY Ua cf XU DU'Uj fU XY 8 Yi gei Y bcg hcfbU VYa !Uj Ybhi fUXcg fW"]V]X"ž), Ł" HUa V fa dcf $|qqcžAUf]U[Yqhz]bh]aUaYbhYib]XU{=|fY'U.UA~YXY8YiqfUZ][ifUfhmdiqkXU=|fY'Už$ Włac 'z Ybg]bUj U GUbhc 5a Vf@jcž]qhc fžbU cfXYa XU ZfžXU WJf]XUXY Y XU i b]~c dYfZY]hU Wta 7f]ght" 8 Y ZUWhtž bc a]ghff]c XU = fY'Už ei Y f hUa V fa WX Ua UXU 'i ghUa YbhY a ~Y Y $\mathsf{j}\,\mathsf{]} \mathsf{f}[\,\mathsf{Ya}\,\,\check{\mathsf{z}}\,\,\mathsf{U}\,\,\mathsf{6}\mathsf{Ya}\,\,\mathsf{!}\,\mathsf{5}\mathsf{j}\,\,\mathsf{Ybh}\,\,\mathsf{fU}\mathsf{X}\mathsf{U}\,\,\mathsf{J}\,\mathsf{]} \mathsf{f}[\,\mathsf{Ya}\,\,\,\mathsf{A}\,\,\mathsf{U}\mathsf{f}]\mathsf{U}\,\,\mathsf{f}\,\,\mathsf{U}\,\,\mathsf{d}\mathsf{f}]\mathsf{a}\,\,\mathsf{Y}]\mathsf{fU}\check{\mathsf{z}}\,\,\mathsf{X}\mathsf{U}\mathsf{b}\mathsf{Xc}\,\,\mathsf{XY}\,\,\mathsf{a}\,\,\mathsf{c}\mathsf{Xc}\,\,\mathsf{Ya}\,\,\mathsf{]}\mathsf{b}\mathsf{Y}\mathsf{b}\mathsf{h}\mathsf{Y}\,\,\mathsf{Y}$ g]b[i`UfcYlYad`cXYj]f[YaYXYa~YÎf=V]X"ž*' E"Cdf@df]c7cbWt]cWcbhYad`UAUf]U WcacA ~Y XcgaYa VfcgXY 7f]ghcfWZ"]V]X" \check{z})' /* & \check{z} Y Ugg]a DUi `cJ = U dfcWUaciA ~Y XU = fY'U" 5 Xci hf]bU Xc 7cfdc a toh]Wtžei Y YI df]a Y XY a UbY]fU a U]g ZcfhY U i b]~c XY 7f]qhc Wta $U = fY'Uz f h Ua V f a c Z b X Ua Y b h c V \pm V \mathbb{T}) Wt X Y g h U UZ f a U, ~c" \(15 \) W V Y, U Y c q$ a Ya Vfcq dYfhYbWa { a Yga U a ~YÎ fHfUhUXc qcVfY U j YfXUXY]fU XYj c, ~cž' &Łž fYWcfXU! bcg G~c @ tg A Uf]U" B YghY gYbh]XcžX]nYa cg ei Yždcf cVfU Xc 9gd ff]hc GUbhcžcg a Ya Vfcg Ygh-cib]XcgYWcbZcfaUXcgWca 7f]ghc7UVY, Už:]`\cXcDU]YXYAUf]UžXYhU`acXceiY ĺei U'ei Yf į YfXUXY]fc Z]`\c XU ≡ fY'U XYį Y hYf 8 Yi g Wta c DU] Y A Uf]U Wta c A ~YÎ fGY[fYXc XY'A Uf]Už'%Ł"

9a 7f]ghcž:]`\c i b][fb]hcž gca cg fYU`a YbhY Z]`\cg Xc DU] Yž Uc a Yga c hYa dcž Z]`\cg XY A Uf]U Y XU = [fY'U" 7ca c bUgW]a Ybhc j]f[]bU` XY >Ygi gž XY WYfhU Zcfa U f hcXU U \i a Ub]XUXY ei Y fYbUgW\" Æ A ~Y Xc GYb\cf [dcXYa gYf Ud`]WWXUgž XY a UbY]fU a U]g j YfXUXY]fU XY ei Ubhc G~c DUi `c Ug Ud`]WU U g] a Yga cž YghUg dU`Uj fUg. [A Yi g Z]`\cgž dcf ei Ya g]bhc ci hfU j Yn XcfYg XY dUfhcž Uhf ei Y 7f]ghc gY Zcfa Y YbhfY j fl ` (ž% Ł" 8 ci { `i n hcXcg cg X]Ug cg Z]`\cg XY 8 Yi gž Ybei Ubhc b~c Ygh]j Yf Zcfa UXc bY`Yg >Ygi 7f]ghcža Yi



l a U XUg Yl dfYgg" Yg a U]g bcVfYg XU Ygd]f]hi U`]XUXY XY G~c @ \pm g A Uf]U; f][b]cb XY A cbhZcfh fYZYfY! gY {]XYbh]Z]WU, ~c Xc Z]Y` Wca A Uf]U bc gYi Ua cf dcf >Ygi gž bc gYi gYfj], c`U`>Ygi g"



WtacgY

Yldf]a Y bU cfU, ~c. [Dcf Z]a ž a]b\U ei Yf]XUY Ua UX‡gg]a U A ~YžgY Zcf dcgg‡ Y`žZUn Wta ei Y Yi b~c hYb\U ci hfc Ygd‡f]hc U b~c gYf c hYi dUfU Wtb\YWf >Ygi g 7f]ghc Y cg gYi g XYgY^cg X]j]bcg/ei Y b~c hYb\U ci hfU U`a U U b~c gYf U hi U dUfU `ci j Uf Y [`cf]Z]WUf c GYb\cf/ei Y b~c hYb\U ci hfc WtfU, ~c U b~c gYf c hYi dUfU Ua Uf 8 Yi g Wta WUf]XUXY di fU Y UfXYbhY Wta c'hi Î fGY[fYXc XY A Uf]Už*, Ł"

5 gUbh]XUXY dYfZY], ~c XU VWf]XUXY



B U Ygd]f]hi U`]XUXY a cbZcfh]b Užc X]b Ua]ga c XU WUf]XUXY f YI dfYggc YgdYW]Uʻa YbhY UhfUj fg Xc g‡a Vc`c XU YgWfUj]X~c Xc Ua cf U >Ygi g U YI Ya d`c Y W£a U Uʻi XU a UhYfbU XY A Uf]U" HfUhU!gY XU W£a i b\~c d`YbU bU _Ybcg]g XY 7f]ghc/W£a i b\~c j]j]XU W£a A Uf]Už]bh]a Ua YbhY dfYgYbhY bcg a]ghff]cg XU j]XU Xc :]`\c" [B ~c \z bUXU YbhfY cg Wf]gh~cg ei Y ZU, U dYfhYbWff XY a UbY]fU a U]g UVgc`i hU U >Ygi g 7f]ghc Y { gi U GUbhU A ~Y W£a c U YgWfUj]X~c XU j cbhUXYž gY[i bXc c YI Ya d`c Xc df@f]c >Ygi g 7f]ghcž ei Y Uggi a]i Ug W£bX], ~c XY YgWfUj c dcf Ua cf U b@ Zcfa Ua gYfj] UWN]d]Ybg Y XU GUbhU J]f[Ya ž ei Y gY W£bg]XYfci gYfj U Y YgWfUj U Xc GYb\cf" C Ud@phc`c \cbfU!gY Xc h#i `c XY gYfj i g 7\f]gh]" J zf]Ug j YnYgž bU GU[fUXU 9gWf]hi fUž cg Wf]gh~cg g~c WkUa UXcg gYfj] 7\f]gh]Î fHfUhUXc gcVfY U j YfXUXY]fU XYj c, ~cž +&£" 8 Y ZUWrcžc :]`\c XY 8 Yi gž ei Y j Y]c Uc a i bXc Ya cVYX].bWJU Uc DU] bU 9bWlfbU, ~c fWZ" < V %\$ z +Łž \i a]`\ci !gY XYdc]g ZUnYbXc!gY cVYX]YbhY Uhf { a cfhYž Y a cfhY XY 7fi n fWZ" : `&ž +!, Ł" A Uf]U W£ffYgdcbXYi { j cbhUXY XY 8 Yi g W£a c Xca hchU` XY g]žW£fdc Y U`a UždUfU gYa dfYžXYgXY U 5bi bWJU, ~c Uhf { 7fi nž Y XUʻ7fi n rUhf' { 5ggi b, ~c"}

7 YfhJa YbhYž YbhfY U cVYX]..bVJU XY 7f]ghc Y U cVYX]..bVJU XY A Uf]U Yl]ghY ia U Ugg]a Yhf]U XYhYfa]bUXU dY`U X]ZYfYb, U cbhc`<math>H]WU YbhfY U DYggcU X]j]bU Xc :]`\c Y U dYggcU \ia UbU XY A Uf]Už Xc ei Y XYf]j U hJa Vfa U Yl Wi g]j]XUXY XU YZ]WJ..bVJU gU`j ‡Z]WU ZcbhU` XU cVYX]..bVJU XY 7f]ghcž XU ei U` U gi U dfGdf]U A ~Y fYWVYi U [fU, U dUfU dcXYf cVYXYWYf`XY`a cXc'hchU`U`8 Yi g`Y`Ugg]a `Wc`UVcfUf`Wca `U`a]gg~c`Xc`gYi :]`\c"

5 Í dYfY[f]bU, ~c XUZfÎ

BUBcjca]``Ybb]c]bYi bhY YgWfYj]ei Y ÍgY U`Wb, U >Ygi gi b]Wa YbhY dY`c Wa]b\c XUZfÎ fb" % \text{L": c] dfYW]gUa YbhY YghY c Wla]b\c gY[i]Xc dcf A Uf]U Xi fUbhY hcXU U gi Uj]XU hYffYbUžY f c Wla]b\c XU = fY'U dYfY[f]bU Uhf Uc Z|a Xcg hYa dcg" C 7cbWf\text{Le} J Uh]Wbc =



]bg]gh]i a i]hc gcVfY U $\mathbb{Z}f$ XY A Uf]Už a]ghYf]cgUa YbhY dUfh]`\UXU dY`U =[fY'Už dcbXc Ya fYU`WY c]h]bYfzf]c XY B cggU GYb\cfU XYgXY c a ca Ybhc XU 5 bi bW]U, ~c Uhf Uc a ca Ybhc XU DU]I ~c fYXYbhcfU fWZ" 7 cbgh" @i a Yb [Ybh]i a ž) + Y *+/ 7 UfhU YbW FYXYa dhcf]g A UhYfž'&)!&+Ł"

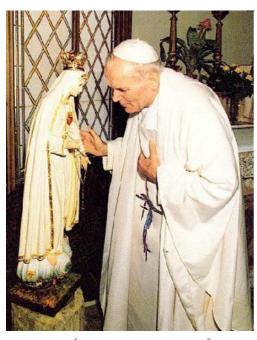
Bcg YgWf]hcg XY G~c@i tg A Uf]U YbWbhfUacg U a Yga U ..bZUgY gcVfY U Zf i]j]XU dY`U A \sim Y XY >Ygi q bi a Wa]b\c ei Y i U] XU 9bWUfbU, \sim c Uhf { 7fi nži a U Zf bU ei U A Uf]U f a cXY'c Y h]dc XU = fY'U" G~c @i tg A Uf]U YI dfYggU!c Wta f]ei YnU XY]a U[Ybg ei UbXc YI d"Y Uc qYi `Y]hcf cq (YZY]hcq a UfUj]`\cqcql XU dYfZY]hU XYj c, ~c a Uf]UbU. (DcfhUbhcž ei Ubhca U]g[Ub\UfYgUVYbYjc`..bWJUXYghUjYbYfzjY`Df]bWJgUYJ]f[Ya Z]Y`žhUbhca U]gc hYi Wa dcfhUa Ybhc XY j]XU YghUfz]bgd]fUXc dY`U Zf di fU" I a U Zf di fUž dcfhUbhc b~c hY dfYcWdUfzga]b]a Ua YbhY XY ei Ubhc f gYbg‡ Y`Y YI hfUcfX]bzf]U" I a U Zf j]j U Y Ub]a UXU]bUVU'zjY` WtaciaU fcWXUžeiY hY ZUfz dYfa UbYWf ZJfaY Y WtbghUbhY bcaY]c XY Zi fuw'yg Y XY hYa dyghuxyg" I a U Zf `uvcf]cgu Y dybyhfubhy ei Yž Wca c a]ghyf]cgu Wkuj Y dc`]j U`YbhYž hY ZUfz YbhfUf Ya hcXcg cg a]ghff]cg XY >Ygi g 7f]ghcž bcg Z|bg • `h]a cg Xc \ca Ya Y bc Wtfu, ~c Xc df Gdf]c 8 Yi g" I a U Zf Wtfu/cquž ei Y hY Zufz Ya df YYb XYf Y WcbWfYhlnUf gYa \Yg]hU, "Yg Wc]gUg [fUbXYg dUfU 8 Yi g Y dUfU U gU`i U, ~c XUg U`a Ug" Dcf Z]a ži a U Zf ei Y gYfz U hi U VX Ua U UfXYbhYžU hi U j]XU X]j]b Užc hYi hYgci fc YgV¢bX]Xc XU GUVYXcf]U X]j]bu Y U hi U Ufa U ca b]dchYbhYž Wta U ei U` YgWUfYWfzg hcXcg cg ei Y g~c htv]cg Y h.a bywgg]XUXY Xc cifc UfXYbhY XU WUf]XUXYž XUfzg XY bcjc j]XU Ucg ei Y a cffYfUa dcf WUi gU Xc dYWUXcž Wta cj Yfzg Y dYfhi fVUfzg Wta Ug hi Ug dU`Uj fUg gi Uj Yg Y ZcfhYq cq Wcfu, "Yq XY dYXfu Y cq WYXfcq Xc @‡Vubc Yž dcf Za ž fYq]qh]fzq Uc XYa @b]c Y U hcXcgcgc]b]a][cg:XU:gU:j U, ~cîfHfUhUXc gcVfY:U:j YfXUXY]fU:XYj c, ~cž&% Ł"

G]bU`XY`YgdYfUb, U`V**Y**fHU

C 9gd#f]hc Gubhc Webj]XU A Uf]U U Í fYdfcXi n]f!gYÎ bcg gYi g Y`Y]hcgž U`Uf[UbXc UhfY`Yg Ug fU‡nYg XU gi U Í Zf]bj YbWf Y`Î ža Ug hUa Vfa XU gi U Í Z]fa Y YgdYfUb, UÎ fWZ' HfUhUXc gcVfY U j YfXUXY]fU XYj c, ~cž' (Ł" C 7cbWf]c J Uh]WUbc = fYWefXci ei Ubhc gY[i Y. Í 5 A ~Y XY >Ygi gž Ugg]a Wea cž [`cf]Z]WUXU 'z Ya Wefdc Y U`a Užf]a U[Ya Y]b‡W]c XU = fY'U ei Y gY \z!XY Webgi a Uf bc gfW`c Zi hi fcž Ugg]a hUa Vfa ž bU hYffUž Vf]`\U Wea c g]bU` XY



YgdYfUb, U gY[i fU Y XY Wtbgc`U, ~cž dUfU c Dcj c XY 8 Yi g U]bXU dYfY[f]bUbhYž Uhf ei Y WXY[i Y c X]U Xc GYb\cf fl7cbgh'@i a Yb [Ybh]i a ž *, Ł" 9ghU X]a Ybg~c YgWlrc` \mathbb{Z}]WU f WtbhYa d`UXU dcf G~c @i \sharp g A Uf]U gcVfYhi Xc ei UbXc ZU`U Xcg [gUbhcg Xcg • `h]a cg hYa dcgl ž Zcfa UXcg dY`U J]f[Ya GUbhU dUfU `Yj Uf { =[fY'U U j]hŒ]U XY 7f]ghc gcVfY Ug Zcf, Ug Xc a U`fWZ" HfUhUXc gcVfY U j YfXUXY]fU XYj c, ~cž (-!) - Ł" B ~c gY hfUhU XY a cXc U`[i a XY i a U Zcfa U XY [a] `YbUf]ga clža Ug Xc gYbh]Xc dfcZ bXc XU \sharp bXc`Y YgWlrc` \mathbb{Z}]WU XU =[fY'Už`][UXU { i b]WJXUXY Y i b]j YfgU`]XUXY gU`j \sharp ZJWU XY >Ygi g 7f]ghc" 5 =[fY'U YgdYfU U j]bXU [`cf]cgU XY >Ygi g bc Z]a Xcg hYa dcg" 7ca c A Uf]U Y Wta A Uf]Už cg gUbhcg g~c bU =[fY'U Y dUfU U =[fY'Už dUfU ZJnYf fYgd`UbXYWff U gi U gUbh]XUXYždUfU U`Uf[Uf Uhf Ucg WtbZ]bg Xc a i bXc Y Uhf`Uc`Z]a XcgʻhYa dcgʻUʻcVfUʻXY`7f]ghcž• b]Wt`GU`j UXcf"



B U UbhłZcbu Guʻj Y F Y[]buž U =[fY'u W Ua U U A ~Y XY 8 Yi g ĺbcggu 9 gdYfUb, Ul̂ " 5 a Yga U Yl dfYgg~c f i guXu dcf G~c @i \ddagger g A Uf]u u dufh]f XY i a hYl hc XY G~c >c~c 8 Ua UgWłbcž ei Y Udʻ]WU U A Uf]u c g‡a Vcʻc V‡Vʻ]Wt XU | bWtfU fWZ" < ca "%]b 8 cfa "6"J "A ". D; -*ž+% Ł ĺB Œgi b]a cg Ug Uʻa Ug U h]ž bcggu YgdYfUb, Už Wta c U i a U | bWtfU Z]fa Y" 5 YʻU UZY], cUfUa !gY Ya a U]cf a YX]XU cg gUbhcg ei Y gY gUʻj UfUa Y Z]nYfUa UZY], cUf cg ci hfcgž dUfU ei Y dYfgYj YfUggYa bUj]fhi XY" DcfhUbhcž VYa ! Uj Ybhi fUXcgž]bZ]b]hJa YbhY VYa ! Uj Ybhi fUXcg cg Wf]gh~cg ei Y \c'Y gY a Ubh.a i b]Xcg U YʻU Z]Y` Y hchJʻa YbhY Wta c U i a U | bWtfU Z]fa Yl̂ fHfUhJXc gcVfY U j YfXUXY]fU XYj c, ~cž%) Ł" 5 hfUj fg XU XYj c, ~c U A Uf]Už c dfŒdf]c >Ygi g ĺ UʻUf[U c WtfU, ~c Wta i a U gUbhU WtbZ]Ub, U Ya 8 Yi gž ZJnYbXc Wta ei Y YʻY gYʻUj]ghc Wta c DU] Y]bgd]fUbXc i a Ua cf hYfbc YʻZ]`]Uʻl̀ f\tev{y}." z" z" & -Ł"

>i bhUa YbhY Wta U J]f[Ya GUbhUž Wta c a Yga c WtfU, ~c XY a ~Yž U =[fY'U fYnUž YgdYfU Y]bhYfWfXY dY`U gU`j U, ~c XY hcXcg cg \ca Ybg" G~c Ug • `h]a Ug dU`Uj fUg XU Wtbgh]hi], ~c @i a Yb [Ybh]i a . [8]f]'Ua hcXcg cg Z]f]g]bghUbhYg g• d`]WUg { A ~Y XY 8 Yi g Y a ~Y Xcg \ca Ybgž dUfU ei Y Y`Už ei Y Ugg]gh]i Wta Ug gi Ug cfU, " Yg Ucg Wta Y, cg XU =[fY'Už hUa Vfa U[cfUž YI U`hUXU gcVfY hcXcg cg Ub'cg Y VYa ! Uj Ybhi fUXcgž]bhYfWfXUž '\frac{1}{2} bhc XY gYi :]`\cž bU Wta i b\~c XY hcXcg cg gUbhcgž Uhf ei Y hcXcg cg dcj cgž hUbhc cg ej # cghYbhUa c



bca Y Wf]gh-cž Wta c cg ei Y U]bXU][bcfUa c GU'j UXcfž gY fY•bUa ZY`]na YbhYž Ya dUn Y \Ufa cb]Užbc•b]Wt'Dcj c'XY'8 Yi gždUfU'[`Œ]U'XU'gUbhtgg]a U'Y']bX]j]gU'Hf]bXUXYÎ fb"'*-Ł"

: UnYbXc XY bcjc a Yig YghYg jchcgžeiY 1 bhUa YbhY Wca cg cihfcg DUXfYg 7cbW[]UfYg Yl dfYggY] \z ei UgY ei UfYbhU UbcgžYbj]c U hcXU U : Ua ‡]U a cbZcfh]bU i a U YgdYW]U`6..b, ~c`UdcghŒ]WU"

Vaticano, 8 de Dezembro de 2003, Solenidade da Imaculada Conceição da Bem-Aventurada Virgem Maria.

