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02 RUGHU VRY DFKILHYH VKUV RENAFUNYH, D ODUIH SRRO RI GHAFULSVRUV KDV EHHQ FDODXODVAG DOG VKH VHOFFURQ RI UHOHDOQV SDUDPHAAUV KDV EHHQ GROH E\ WAASZIVH PXO1050H 0100-HDU UHJ UHWIRQ PHAKRGI

; KH SDUHOAVXIIXFVIUH RI 7KHOAODONODPLOH XHG LO SUHHOAV VIXIGA LVAKRZ QLO-LI XUH FII

%00.SUHMHQ/WWXG\DGDVD/VHMRIŽ\$

SKHOLODON ODPLOHV KOV EHHQ VONHQ I URP VKH OLANLOVAUH I RU 8: (9 WAXG\1; KH SVLFKRPHAVE DEVLYV RI GUXU V DUH J HOHDOOL H[SUHWHG LQ PHAEDOOH XQVV^{*}MU^{*}, GH LOHG DV VKH UDVIR RI VKH HI HEVLYH GRVH RI PHAEDOOH VKI VKH HI HEVLYH GRVH RI VKH VHWANG FRPSRXOGI; KH SRVNOEN LV XVXDOOL H[SUHWHG DV 02J MU^{*}, Z KHUH MU LV VONHQ DV PROFI RI PHAEDOOHY PROFI RI VKH VHWANG SKHOLODN ODPLOH; KH GDVD VHVLQ VKU Z RUN FROLIVANG RI VKH 02J MU YDOXHV RI Ž# SKHOLODON ODPLOH GHUYDVANG Z KLEK Z HUH VONHQ I URP VKH OLANLOVAUHB C; KH VWXEVAUDO I HDVAUHV RI VKHM FRPSRXOGV DOG VKHU H[SHUPHOLOOD2J MU YDOXHV DUH SUHVHOJAG LQ

% OV LOFOXGHV > LHOHU COCH[~> "BT#C, GILI HUHOW WSHV RI) DODE DQ ELDOFKLOJ LOGH[~1KHANY, 1KHANY, 1KH

%7K\VERFKHPIEDOSURSHUUH VHWHG LQ SUHHOWWWG\ DUH 4 RODU UH UDF\WYLW 4 9, 4 RODU YROXPH 4 = 7DUDFKRU 7F, 00GH[RI UH UDF\WRQ 79, : XJ DFH VHQVRQ 5; ; + HQVW 5+ 7RODU] DELOW 7RO DOG 6 FVDORO Z DVHUSDUMMRQFRH I LEHQWCBU 71

%7 DLDPHAHUVVXFK DV (SSUR[LPDVAI : XUDFH DUHD `(:(`,:XUDFH (UHD . UG `:(.`, /\GLDVARQ HOHUI \ `/,`DQG / HDWRI - RUPDVARQ `/-`Z HUH VAMAAG LQ VALV FDVAU RU\I ODULIH VHWRI GHVFUSVRUV REVONLOHG I URP PHOWROHG VRIVØ/DUH WH GHNFUSVIRUV VKRZ LOJ UHOPYDOWRU VJ OLLEDOWFRUHOVURO ZWX 0RJ4 < ZHUH VHOHFVAGE \ 4 X00050F1 000HDU UHJUHWURQ DODONAV DOG 8: (9 PRGHOY KOV EHHQ GHYHORSHGI ; KH VHOFFING GHVFUSVRUVIRUŽ\$ SKHOLODOLODPLOHVDUH SUHVHOANG D

02 WHASZ WH PX00050F1 000-HDU UHJUHWURQ DODQVU/ WH PRGHO REVOLO-IG UDOJ HVI URP XOLYDUDVA VRZ PXOLYDUDVA PRGHO-URP WH DWHWPHOWRI SRWEEDH XOLYDUDWH PRGHO LWKDV EHHQ REVHUYHG WADWORDH RI WAH WASROBULEDO SK\VERFKHPLEDORU YROXP HWIE GHVFUSVRUV DUH KDYLOJ VKH WIDWIWFDOD VJ OLLEDOW UHXXXX

; KH WAASZINH UHUUHWARQ DODQVIV OF DGV WAY VHYHUDO PRGHO KRZ HYHU WAH EHWVRXW RI DOO XOLYDUDVAI PRGHOV LV REVOLOHG Z LVKV LOGLEDVARU SDUDPHVAU Qž ; KHPRGHOYREVDILLHGIURPQz SDUDPHNHUVIVDVEHDRZ %

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00 RUGHU WAY REVOND PRUH HILFELHOWPRGHOEL, WIL VHWOD DOG SHOUDY YOUDWH PRGHOY KOV EHHO, GHYHORSHGI 6 OD WAH EHWW PRGHORE VDILCHG LQ HDFK WHS LV SUHMHOME HORZ I ; KH WDNDMIFDO SDUDPHAHU RQ WAH EDVUV RIZ KLEK WAHVH PRGHOV DUH VHODEVAHG IRU8: (9 WXG\ LV DOOR PHOLARCHG Z LVK/HDFK PRGHD

KHPRGHOREVDILOHGIURPELYDUDWIFRPELODVUROLVDVEHORZ $\mathbb{Q}_2 < \int \mathbb{Q}_2^* = \int \mathbb{Q}_$

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- RU WAH GHMALAPIG WAXFWALDODODODOVUV WAH WIL DOG VANVO~YDUDVA FRPELODWAROV DUH WAWAYG DOG WAH PRGHOV REVOLOHG I URP WAH FDOFXODVARO/DUHDVEHORZ%

 $\mathbb{R}J4 < \text{'} \text{fil}\# \text{L}\$^{\text{'}} \text{fil}\# \text{fl}\$^{\text{'}} \mathbb{Q}_{z} \text{''} \text{fil} Z \text{'} \text{fil}\# \text{fl} Z \text{'} \mathbb{R}J7$

a fiififižž^{*}fiifififiž^{*}:(. ″Łıfl#Ł", Tı^{*}

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- RUVKHIXUKHULPSURYHPHOWRIVKHSUHGLEVLYHSRWHOLDORIVKH PRGHOSHOUD YDUD WHERPELOD WIRO / DUH VHWHIG DOG WHPRGHOV REVDILOHG IV SUHVHOUNG DVEHORZ

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Q'Ž\$&:H' fiił!flfi&U' fii#"!#&-' Ł#i! fiŽ&8 ' ŁiŽł fi (VZH SDWIURP WAH, TI FI WAY Ž WAHUH LV FROMOXHV LOFUHDVH LO WAH YDOXH RIUIURP fii! "WAY fii#"! # DOROJ ZUWAY WAH GHFUHDVH IQ WAH YDOXH RI: H, LOFUHDVH IQ WAH YDOXH RI U LV REYLRXV Z LWA WH DGGLVIRO, RI SDUDP HVHU EXWVLP XODOLFRXV GHFUHDVH LQ WH YDOXH RI: HIXXXIIA WAH DGGLVIRQ RI SDUDPHANUV IQ WAH PRGHOV *ROMOXHV LOFUHOVH IURP HTI FI VAY Ž, LQ VKH WLOVUMUATOO). JHOHDVHG SDUDPHNHU TXDODV IDFVRU 8 DOR NAMUA VKH HTXDVIRQ/DOG VKHUSUHGIEVIYH SRVAQVIDO

; KH EHWV8: (9 PRGHO

REVDALCHG LQ SUHVHQXWXXG\ SUHVHQXHG DERYH DV , T ži; KH SUHAFOFH RI LOGLEDVIRU SDUDP HAHU @ 7 Z LAK SRVLAVH FRUHOVARO FRHILFLHOARI fil#Łłł VXJJHWW/WKDW&Łż WXEWWWWRQROWKH PROFEXON LOLOXHOELOJ WALL SVJ.FKRVRPLPHNAF DEVLAYUV RU WAL WE WINNAMERO, RO, SRVINIARO, Ł DOG Ż I DYRU WAH SW. FKRWARP LP HNUF DFVLYV ORU 4 <1

; KH SUHWHOFH RI K\GURSKREIF SDUDP HVHU ORU 7 Z LVK/ SRVLLVYH FRUHOWARO, FRHILELHOWRI FIIŽ FIŽ VXJ J HWAMH RI SRVAMH LPSDFW RI K\GURSKRELFLW RQ ORJ 4 <1 ; KHUH RUH, DQ\ VXE WUMMAHQW ZKLEK LOEUHDVHV K\GURSKRELELW ZLOOEH IDYRUDEOH IRU WAH EIRORJ IFDODEVLYW RIVKH FRP SRXOGV

; KH , T ˘ź ` VKRZ V QHJ DWYH FRUUHDWIRQ FRH I LEIHQWRI : (. Z KLEK VKRZ V ORZ HU VXU DEH DUHD JULG LV I DYRUDE OH I RU VKH SVA FKRVRP LP HVUF DFVLYLVM

6 Q WAH RWAHU KOOG SRVAAMH FRHILFELHOWRI 1KHAAY DOG 4 9 VASSRUMY KU KHU YDOXHV RI ERWKY WKH GHVFUSVARU VAY HOKDOFH ELROPULED OLP SDEWRI WITH FRP SRXOGV ; KHWH SDUDP HWHU/ UHYHOV EUDOFKLOJ DOG UH UDFWYLW LQ WH FRP SRXOGV

(V WAH PRGHORE WALL OF G I URP SHOUD VAN FRPELOD WAROV WAH , TIŽ KDYLOJ WKH Ł RXWOLHŲ FRPSRXOG OR Ł DOG Ž#I (IVHU WKH GHOMARORI ERWYFRPSRXOGVIURPFDODXODVAROPRGHOREVDIOHG IVDVEHORZ %

°D' + DVD/SRLOWORRUSRLDWAG LQFDODXDDVBRQIURP, TI"

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+ DVD VHVDQG FRUHASRQGIQJ REVHUYHG DQG FDODXDVANG YDOUHV RI ORJ 4 < XVQJ , T " 4 < LV VDNHQ DV WH PROHV RI PHVFDQDH/ PROHV RI VKH VANANG SKHQ, ODD VDH QH

+ HAFUS VARUY : HOPFVARG E \ P XOODS OF OLD HU UHWARQ DODO VUVI RUVKH 8 : (9 VAAG \ RI 7KHO LODO LODH UHWARQ DODO VUVI RUVKH 8 : (9 VAAG \ RI 7KHO LODO LODH UHWARQ DODO VUVI RUVKH 8 : (9 VAAG \ RI 7KHO LODO LODH UHWARQ DODO VUVI RUVKH 8 : (9 VAAG \ RI 7KHO LODO LODH UHWARQ DODO VUVI RUVKH 8 : (9 VAAG \ RI 7KHO LODO LODH UHWARQ DODO VUVI RUVKH 8 : (9 VAAG \ RI 7KHO LODO LODH UHWARQ DODO VUVI RUVKH 8 : (9 VAAG \ RI 7KHO LODO LODH UHWARQ DODO VUVI RUVKH 8 : (9 VAAG \ RI 7KHO LODO LODH UHWARQ DODO VUVI RUVKH 8 : (9 VAAG \ RI 7KHO LODO LODH UHWARQ DODO VUVI RUVKH 8 : (9 VAAG \ RI 7KHO LODO LODH UHWARQ DODO VUVI RUVKH 8 : (9 VAAG \ RI 7KHO LODO LODH UHWARQ DODO VUVI RUVKH 8 : (9 VAAG \ RI 7KHO LODO LODH UHWARQ DODO VUVI RUVKH 8 : (9 VAAG \ RI 7KHO LODO LODN VUVI RUVKH 8 : (9 VAAG \ RI 7KHO LODO LODN VUVI RUVKH 8 : (9 VAAG \ RI 7KHO RUVKH 8 :

4 RGHOOJ SDUDPHNHUVFDOOXODNHG I RUVHOPFNHG FRPSRXOGVZ LVVPLOUPXPUHNGXH

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- Łfii 2KDGINDŲ 7ι = ι,+HKSDQGH 5ι 5ι,2DQ 7ι (ι,+RKLQQ (ι, XM7DQ Q,+RCHZIRŲ. ι 1ι fl\$\$ž`*KHPι QQ ι*RPSW : FL ł ž ,žŽ"ι
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