

Sommario Rassegna Stampa

Pagina	Testata	Data	Titolo	Pag.
Rubrica Segnalazioni Radio-Tv				
12:07	Radio 24	18/07/2022	<i>OBIETTIVO SALUTE (Ora: 12:07:25 Min: 3:11)</i>	3
Rubrica Cnr - carta stampata				
10	Viversani e Belli	28/07/2022	<i>Le pillole della salute</i>	4
Rubrica Cnr - siti web				
	Ilmattino.it	30/07/2022	<i>Il paniere della giusta dieta e' testato dagli scienziati</i>	5
	Virgilio.it	30/07/2022	<i>Il paniere della giusta dieta e' testato dagli scienziati</i>	8
	Integratorifoodmed.it	28/07/2022	<i>Rischio diabete ridotto con dieta a basso indice glicemico: uno studio del CNR</i>	9
	Ennavivi.it	26/07/2022	<i>Alimenti a basso indice glicemico prevengono il diabete</i>	11
	Affaritaliani.it	25/07/2022	<i>Diabete tipo 2, gli alimenti a basso indice glicemico lo prevengono</i>	13
	CinqueColonne.it	25/07/2022	<i>Alimenti a basso indice glicemico prevengono il diabete?</i>	15
	Ilsole24ore.com	18/07/2022	<i>Una dieta a basso indice glicemico potrebbe contribuire a prevenire il diabete di tipo 2</i>	18
	Onb.it	18/07/2022	<i>Cnr: alimenti a basso indice glicemico e prevenzione del diabete</i>	19
	Radio24.ilsole24ore.com	18/07/2022	<i>Una dieta a basso indice glicemico potrebbe contribuire a prevenire il diabete di tipo 2 - Obiettivo</i>	20
	Persemprenews.it	17/07/2022	<i>Federico II, dieta per prevenire diabete tipo 2</i>	21
	Teatronaturale.it	15/07/2022	<i>Gli alimenti a basso indice glicemico prevengono il diabete</i>	22
	Aise.it	14/07/2022	<i>Amsterdam: Innovazione tecnologica e diritti umani in una tavola rotonda all'IIC</i>	25
	Lamescolanza.com	14/07/2022	<i>Mangiando cibi a basso indice glicemico si puo' prevenire il diabete</i>	26
	Tg24.sky.it	14/07/2022	<i>Una dieta a basso indice glicemico aiuta a prevenire il diabete. Lo studio / Sky TG24</i>	28
	Worldmagazine.it	14/07/2022	<i>Una dieta a basso indice glicemico aiuta a prevenire il diabete. Lo studio</i>	30
	Lospeakerscorner.eu	13/07/2022	<i>Prevenire il diabete di tipo 2</i>	31
	Adriaeco.eu	12/07/2022	<i>Alimenti a basso indice glicemico prevengono il diabete</i>	34
	Aise.it	12/07/2022	<i>Alimenti a basso indice glicemico prevengono il diabete: lo studio del Cnr</i>	36
	Ansa.it	12/07/2022	<i>Dieta a basso indice glicemico puo' prevenire diabete tipo 2</i>	37
	Dazebaonews.it	12/07/2022	<i>Ricerca. Gli alimenti a basso indice glicemico prevengono il diabete</i>	39
	Expartibus.it	12/07/2022	<i>Alimenti a basso indice glicemico prevengono il diabete</i>	41
	Gazzettadiavellino.it	12/07/2022	<i>Alimenti a basso indice glicemico prevengono il diabete. Lo dimostra un recente studio dell'Universit</i>	44
	Gazzettadinapoli.it	12/07/2022	<i>Alimenti a basso indice glicemico prevengono il diabete. Lo dimostra un recente studio dell'Universi</i>	48
	HealthDesk.it	12/07/2022	<i>Alimenti a basso indice glicemico riducono il rischio di diabete</i>	49
	ILCORRIERINO.COM	12/07/2022	<i>Diabete di tipo 2, una dieta a basso indice glicemico puo' prevenirlo</i>	51
	Ilmattino.it	12/07/2022	<i>Una dieta per prevenire il diabete di tipo 2 messa a punto dal Cnr</i>	55
	Ilmondodisuk.com	12/07/2022	<i>Ricerca/ Cnr di Avellino e Universita' Federico II: frutta, verdura e riso...</i>	58
	Insalute.it	12/07/2022	<i>Diabete di tipo 2, una dieta a basso indice glicemico puo' prevenire la malattia. Lo rivela uno stud</i>	60
	Laboratoriopoliziademocratica.blogspot.it	12/07/2022	<i>Salute: cibi a basso indice glicemico prevengono il diabete</i>	63

Sommario Rassegna Stampa

Pagina	Testata	Data	Titolo	Pag.
Rubrica	Cnr - siti web			
	Larampa.it	12/07/2022	<i>Dieta a basso indice glicemico puo' prevenire diabete 2</i>	65
	Lescienze.it	12/07/2022	<i>Alimenti a basso indice glicemico prevengono il diabete - Le Scienze</i>	68
	Meteoweb.eu	12/07/2022	<i>Gli alimenti a basso indice glicemico prevengono il diabete</i>	69
	Napolitime.it	12/07/2022	<i>Salute: alimenti a basso indice glicemico prevengono il diabete</i>	71
	Napolitoday.it	12/07/2022	<i>Quali sono gli alimenti a basso indice glicemico che prevengono il diabete</i>	73
	Salutedomani.com	12/07/2022	<i>Ricerca, alimenti a basso indice glicemico prevengono il diabete</i>	75
	Saluteh24.com	12/07/2022	<i>Ricerca, alimenti a basso indice glicemico prevengono il diabete</i>	78
	SardegnaGol.eu	12/07/2022	<i>Cnr: Gli alimenti a basso indice glicemico potrebbero prevenire il diabete.</i>	80
	Senzaeta.it	12/07/2022	<i>Alimenti a basso indice glicemico prevengono il diabete</i>	83
	Tecnomedicina.it	12/07/2022	<i>Alimenti a basso indice glicemico prevengono il diabete</i>	84
	Teleischia.com	12/07/2022	NAPOLI. FEDERICO II, ALIMENTI A BASSO INDICE GLICEMICO PREVENGONO IL DIABETE LO AFFERMA UNO STUDIO	86

2%, (77,92 6\$/87(2UD

0LQ

8 Q D G L H W D E D V V I R Q G L F J I O L F H P L S F R W U H E R I Q W U L E X L S U H Y H Q L O B L D E H W I H W L S R
, Q W H U Y L V W D D ' R W V D V E D D F F R J L F H U F D W Q H I O D G H Q X W U L J L X E B Q D
P H W D E R O S V P R V R & 15, V D G L \$ Y H O O L Q R

le pillole

della salute

a cura di Tiziano Zaccaria



Un podcast per saperne di più sul diabete

Cosa sappiamo della "malattia del secolo"? Alle tante domande sul diabete, nel podcast prodotto da Pazienti.it *Serotonina* risponde la dottoressa Rosalba Giacco, ricercatrice dell'Istituto di scienze dell'alimentazione del Cnr. I sintomi più frequenti del diabete di tipo 2 sono il bisogno di urinare anche nelle ore notturne, l'aumento inusuale della sete e del senso di fame, affaticamento e stanchezza. La dieta e lo stile di vita contano,

come sempre: «Ridurre il peso corporeo anche solo del 7% può permettere alle persone con pre-diabete di restare normoglicemiche per molti anni», spiega l'esperta.



IN MEMORIA

"Essere Asteroidi", dedicato ai giovani malati reumatici

È dedicato alla memoria del professor Rolando Cimaz, già direttore di Reumatologia pediatrica dell'Ospedale Gaetano Pini di Milano, scomparso prematuramente lo scorso gennaio, il podcast "Essere Asteroidi", prodotto dall'omonimo gruppo giovani di Alomar, Associazione lombarda malati reumatici. In quattro episodi il podcast raccoglie le testimonianze di 17 ragazze e ragazzi, che raccontano cosa significhi per un giovane convivere con una malattia reumatologica. Tra gli esperti intervistati c'è la dottoressa Maria Gerosa, che al Pini è il punto di riferimento per le pazienti reumatologiche che intendono intraprendere una gravidanza.



ANCHOR.FM/ASTEROIDIALOMAR

da vedere



La docuserie sul mondo che ci aspetta

Fra crisi climatica, pandemia e guerra, i prossimi anni sembrano disegnati a tinte oscure, ma la serie documentaria *Verso il futuro* racconta di prospettive più positive ed eccitanti. Disponibile su Netflix, è stata realizzata dal magazine statunitense *The Verge*, specializzato in tecnologia. L'idea è di concentrarsi sul futuro prossimo, quello che potremmo sperimentare nel corso delle nostre vite e che, in alcuni casi, è già realtà, per quanto magari di nicchia. Niente ipotesi che si spingano troppo

avanti nel tempo e sfiorino la fantascienza, dunque, bensì prospettive concrete. Ognuno dei dodici episodi è dedicato a un argomento: dai giochi digitali al turismo spaziale, dall'alimentazione alla moda, dalla salute alla vita dopo la morte.



da leggere

Quando la scienza diventa anche divertente

Titolo: Il pollo di Marconi e altri 110 scherzi scientifici
Autore: Vito Tartamella
Editore: Dedalo
Prezzo: 17,10 euro.



La crociata anti-glutammato scoppiata nel 1968 perché un medico si inventò la "sindrome da ristorante cinese". La "scrotalgia del violoncellista", uno studio farlocco uscito nel 1974 a Londra che fece preoccupare tanti musicisti. Ascellin, un deodorante "da inalare sotto le ascelle delle donne prima di un rapporto sessuale", un anticoncezionale fasullo "inventato" da alcuni scienziati canadesi nel 1965. Nel corso della storia, riviste scientifiche, enti di ricerca e scienziati hanno escogitato scherzi ironici e provocatori, spesso per smascherare pregiudizi e stereotipi. Questo divertente libro li raccoglie e li racconta.

46-13 4-%2)33231-% '90896%74)88%'3074368 8)'2303+-%

+20(1\$32/, \$9(//,12 %(1(9(172 6\$/(512 &\$6(57\$ &\$/\$%5,\$ %086) 7)>v32-

'632%'%430-8-'%0896%78=0)6-'36(- (-2*%2>-%

DGY

-P TERMIVI HIPPE KMYWXE
å XIWXEXS HEKPM WGMIR^

1\$32/,! &521\$&\$

6DEDWR /XJ000DULD 3LUUR

EHZ

/D VDOXWH q VHUYLWD ©%DVWD VFHJOLHUH JOL DOLPHQWL JLXVWL SHU S
PDODWWLH FURQLFR GH5RHOEDDLEMDLFFHUYDHWLWFH GH0
&QU ,VD GL \$YHOOLQR VSLHJDQGR FKH WUD JOL HUURUL SL• LQVLGLRVL
DOWD GHQVLWj QHUUJHWLFD QRQ ELODQFLDWD GD XQ†DGHJXDWD DWWLYLV
XOWLPL ODYRUL VFLHQWLILFL GLPRVWUDQR FKH DEEDVVDUH OD JOLFHPLD
XWLOH D QRQ VYLOXSSDUH LO GLDEHWH GL WLSR H QRQ VROR ©\$ELWXGL
LO ULVFKLR GL REHVLWj GL SDWRORJLH FDUGLRYDVFRODUL H GL DOFXQL
LQVLVWH O†HVSHUWD SUHVHQWDQGR LO SDQLHUH GH0 EHQHVVHUH

%4463*32(-1 i-

-0 '%73

-0 &300)88-23

,MZ XVETMERXS HM GIPPY SZMH MR 'EPE
WXEQMREPM YR TE^MIRXIGS BXEKM MR
ERRM QEPEXS TSWMXMZM I M

OMPSS EP +MJJSRM *MPQ *IV

(%00% 78)77% 7)>-32)

'SZMH MR 'EQTERME
WIXXI QSVXM MRHMG
MR GEPS VMGSZ
MRXIRWMZI

1SRXI *EMXS XYVMWX
WEPZEXS HEP WSGGS'

HM *MSVERKIPE
H %QSVE

%KKYEXS E 2ETSPM Y
GSPTM H EVQE HE JYS

6L FRPLQFLD FRQ L FHUHDOL LQWHJUDOL GD SUHIHULUH D TXHOOR LQGR
OD YHUGXUD H OD IUXWWD SHUFKp FRQWHQJRQR ILEUH FKH UDQOHQWDQR C
GHL FDUERLGUDWL H KDQQR XQ LQGLFH JOLFHLFR EDVVR GHWHUPLQDQR
DXPHQWR GHOOD JOLFHLPLD LQ SHUFHQWXDOH LQIHULRUH D TXHOOR LQGR
GDOO LQJHVWLRQH GL XQD SRUJLRQH GL SDQH ELDQFR FVVS QD VJHVD TX
FDUERLGUDWL ©0DJJLRUL EHQHILFL VL RVVHUYDQR FRQWXRQWR PRIGWE
ILEUH YHJHWDOL DO JLRUQR FKH ULGXFRQR LO FROHYWHUROR GHOOD /GO
FKH FDXVD ODUWHULRVFOHURVL GLPLQXHQR O LQILDPPD JLRQH H QRQ >
DXPHQWDQGR LO VHQVR GL VD JLHWj FKH q XWLOH D SUHYHQLUH O REHVLW
O HVSHUWD VSLHJDQGR FKH DQFKH DOFXQL D H
ULVR SDUERLOHG H SLDGLQH KDQQR XQ EDVVF III
SROHQWD SLJJD H SDWDWH

6JFKMWGLFB XIPYEXM
ZMIRI EGGSPXIPPEXS
MRNEKMRM
REGOIX RIP OIVGEXMR
FVVS TIV SKRM PERC
HM OYMRM 7EFMRS

EHZ

:-()3 4-9 :-783

0E QEQQE HM 8
GSRXVS -PEVJ
JVEWI WGSXXEI

EHZ

6RQR GXQTXH UDFFRPDLQ@HQQWLPFXQRVWUH SRUJ
 LQWHJUDOL D FRODJLRQH SUDQJR H FHQD H F G)
 ROWUH DG DOPHQR WUH SRUJLRQL GL OHJXPL (H
 FDUQH URVVD D GXH SRUJLRQL D VHWLWLPDQD H PDQJLDUH VSRUDGLFDPHQ
 LQVDFFDWL ©3RVVRQR SRUWDUH PDODWWLH FURMoltoFoodFRODUL DOFXQL
 FRPH TXHOOR GHO FRORQ UHWWRª ,O PRWLYR" 'L FHUWR OD FDUQH URVVE
 SURWHLQH DG DOWR YDORUH ELRORJLFR H IHUUR PD DQFKH PROWL JUDVV
 DXPHQWDQR FROHVWHUROHPLD OLYHOOL GL LQVXOLQD QHO VDQJXH H GHO
 GHO WUDWWR LQWHVWLQDOH JOL LQVDFFDWL FRQWHQJRQR WURSSR VDOH
 SUHVVLQRH DUWHULRVD ©/R VWHVVR GLFDVL SHU L IRUPDJJL H OH XRYD
 JUDVVL VDWXUL H FROHVWHUROR 7XWWL L GHULYDWL GHO ODWWH VRQR S
 GL FDOFLR PLQHDOH LPSRUWDQWH SHU OD IRUPDJLRQH GL RVVD H GHQW
 UHJRODJLRQH GL WDWWH IXQJLRQL FHOXODUL È FRQVLJOLDWD OD VRVWL
 VWDJLRQDWL FRQ L IUHVFKL H TXHOOL LQWHUL+FRXS JEXXS MR GWE
 UDFFRPDQGDJLRQH GSR WSPM HYI MRKVIHMI

,SHVFH DJJLRO HOHYDWR FRQWHQXWR GL RPHJD (% XQWLSR364-DFLGR JUI
 LQVDWXUR FKH ULGXFH L OLYHOOL GL WULJOLFHULGL QHO VDQJXH H LO UL
 FDUGLDFKH %HQH DQFKH LO VDOPRQH 3HU TXHVWR VH QH UDFFRPDQGD L
 DOPHQR YROWH D VHWLWLPDQD 4XDQWR DOOROLR H[WUDYHUJLQH GL RC
 GLHWD PHGLWHUUDQHD XQR R GXH FFFKLDL DO JLRUQR WHQJRQR D EDGE
 FDUGLRYDVFRODUL H WXPRUL JUDJLH DJOL DFLGL JUDVVL PRQLQVDWXUL
 FROHVWHUROR FDWWLYR /GO H DXPHQWDQR TXHOOR EXRQR +GO ROWUH
 OD SUHVVLQRH DUWHULRVD
 *XDL D HVDJHUDUH FRQ GROFL EHYDQGH JDVDWH DOFRRO H VDOH SHUFKJ
 H DOWUL JXFFKHUL DJJLXQWL LQQDOJDQR L OLYHOOL GHOOD JOLFPLD H ID
 6HUYH PRGHUJLRQH FRQ LO YLQR URVVR FKH SXz FRPXQTXH DYHUH HIIHWV
 VH QRQ VL VXSHUDQR L GXH ELFFKLHUL DO JLRUQR SHU JOL XRPLQL H XQR
 VDOYR FRQWURLQGLFDJLRQL VSHFLILFKH SHUFKp SXz LQIOXLUH VXL OLYH
 QHO VDQJXH H OJLSHUWHQVLRQH DUWHULRVD ,QILQH LO VDOH FRQ SDUV
 VRGLR FKH DOJD OD SUHVVLQRH &H Qq WURSSR DQFKH QHL FLEL LQ VFDW
 VQDFN 6HL JUDPPL DO JLRUQR PDL GL SL•

8OWLPR DJJLRUQDPHQWR
 (5,352'8=,21(5,6(59\$7\$

'IWXMRS HE TMGRMG GMRU
 TVIA^S GSRGSVVIR^MEPI

EHZ

&HUF D LO WXR LPP

5HJLRQH 4XDOVLDVL

3URYLQFLD 7XWWH

)DVFLD GL \$ 7XWWL

/o %o v] Œ oo P]μ•š] š - š •š š }

> • oμš • ŒÀ]š W - •š • Po] Œ Po] o]u vš] P]μ•š] %o Œ %oŒ À
'] }U Œ] Œ šŒ] o vŒ r /•] À oo]v}U •%o]vR}ŒŒ}Œ}ÀU šŒŒ}
• o ì]]v š μš]o]ì]] u} }}|] } š v}o}P] •]u]o] %o Œ (]v o]š š v] Z
}u •%o](] š} v oo }|] %o}o] ÇX /o Œ](]μš} o }v• v•} %oμWŒ vμ
Œ]Pμ Œ o %oμ o]]š U v}} š Œì %o Œš] • o ì]]v š U %o}šŒ
o2] vš](] ì]]v ššŒ À Œ•} o • v•]}v o]•%o}•]š]À}U o (]v
]•%o}•]š]À} šŒ šš Œ š] %o Œ•}v o] }u] šμ}} š]] μš]o]ì
}vš vμš] %o Œ•}v o]ì]š]U À oμš ì]]v Po] vvμv] o }vš vμš}U
Wμ}} o] Œ u vš %oŒ •š Œ U Œ](]μš Œ } Œ À} Œ]o šμ} }v• v•}
%oŒ (Œ v ì X

,17(*5\$725,)22'0(' ,7

&+, 6,\$02 63(&,\$/,7, 1250\$7,9\$ 1(:6 (9(17,

+RPH 6SHFLDOLMWRORSJLLVDFKLR GLDEHWH ULGRWWR FRQ GLHWD D EDVVR LQGLFH JOLFHPLFR XQR VWXGLR GH

6SHFL, 'LHWRC

6MWGLMS HMEFIXI VMHSXXS G
KPMGIQMGS YRS WXYHMS HIP

6WHIDQLD 6RPOXPOLR

,O GLDEHWH PHOOLWR GL WLSR PDQOMWQDWFRFRPFDFDDU DWWHULJJDWD GD HOHYDWL OLYHOC
GRYXWD D XQIDOWHUDJLRQH GHOOD TXDQWLWj R GHO'IXQJLRQDFHOMSLGBOCHDQVXOXQWR U
FDVL FRQWUR LO GL TXHOOL GL GLDEHWH GL WLSR R JLRDQLOH / DOLPHQWDJLRQH |
JHVWLRQH GL TXHVWD PDODWWLD PHWDEROLFD SHUFKp IDFLQLWD LO FRQWUROOR GHOOD
PLQLPR VH QRQ HOLPLQDWL SHUFKp UHVSQRVDELLOL GL XQ DOWR H UDSLGR FDULFR JOLFI
OD GLHWD OHGLWHUUDQHD UDSSUHVHQWD XQ EXRQ PRGHOOR DOLPHQFRDUHDDQEFKXJSHQHJGVH
IUXWWD H YHUGXUD WURSSR ULFFD LQ DPLGL H JXFFKHUL /D GRPDQGD q VH OD GLHWD SI
O LQVRUJHQJD GHO GLDEHWH VRSUDWWXWWR QHL VRJJHWL JLj LQ VRYUDSSHVR RG REH
ULVSRVWD DIIHUPDWLYD DUULYD GDOOR VWXGLR 0(*, &DUE FRQGRWWR GD ULFHUFDWRU
QDJLRQDOH GHOOH ULFHUFKH GL \$YHOOLQR &QU ,VD LQ FROODERUDJLRQH FRQ O18QLWj C
,, GL 1DSROL H OH 8QLYHUVLWj GL 3XUGXH 86\$ H &KDOPHUV 6YHJLD

- VMWYPXEXM HIPPS WXYHMS 1)(+- 'EVF

,17(*5\$725,)22'0(' ,7

3XEEOLFDWRWULHQRV VVWXGLR VL EDVD VXOOD FRQVDSHYROHJJD FKH DEEDVVDUH OD JOLF
HIILDFDH SHU ULGXUUH O TLQFLGHQJD GHO GLDEHWH LQIDWWL O TDXPHQWR GHOOD JOLFHF
DOOR VYLOXSSR GHOOD \$RODDEWLD D BESHUFD WULFH QHOOT \$UHD GL QXWULJLRQH XPDQD H I
\$YHOOLQR H UHVSQRVDELOH GHO SURJHWWR GL ULFHUFD L SDJLHQWL FRLQYROWL (
WXWWL KDQQR VHJXLWR SHU VHWLPLDQH XQD GLHWD LVR HQHUJHFDL D BGRPDQWEXQ
FHUHDOL D EDVVR LQGLFH JOLFHPLFR H LQ DOWUL VROR FHUHDOL DG DOWR LQGLFH JOLFH
EDVVR LQGLFH JOLFHPLFR YHQLYDQR IRUQLWL JUDWXLWDPHQWH DL SDUWHFLSDQWL BSSRQ
&RVWDELOH HUFDWULFH GHOOT 8QLYHUVLWj)HGHULFR ,, H FRDXWULFH GHOOR VWXGLR 3UL
VHJXLWL SHU VHWLPLDQH SHU YDOXWUOH O LPSDWWR GHOOD ORUR GLHWD DELWXDOH VX
SDUWHFLSDQWL VRQR VWDWL VRWRSRVWL LQ JLRUQL VWDELOLWL D XQ FRQWUROOR JOL
2*77 LQROWUH VL q SURFHGXWR FRQ XQD PLVXUDJLRQH LQ FRQLQXR GHOOD JOLFHPLD
L ULVXOWDWL RWWHQXWL SHUPHWWRQR GL HYLGHQJLDUH LO UXROR SURWHWWLYR GHL FLEL
JOLFHPLFKH VRQR SRL L UHVSQRVDELOL GL WXWWH OH FRPSOLFQJH GHO GLDEHWH GDWR
VDQJXLJQL &RQIHUPD &RVWDELOH &RPH DYHYDPR LSRWLJJDWR LO SURILOR JOLFHPLFR
RUD SULPD H GRSR OD FRODJLRQH H LO SUDQJR ILQR DO WDUGR SRPHULJJLR DXPHQWDYD
JOLFHPLFR PHQWUH ULPDQHYD LQDOWHUDWR LQ FRORUR FKH HUDQR VWDWL DVVHJQDWL C
PDUFDWD WUD L GXH JUXSSL VL UHJLVWUDYD SHU OD ULVSRVWD JOLFHPLFD GRSR LO SUDC
GLPHJJDWD QHO JUXSSR FRQ GLHWD D EDVVR LQGLFH JOLFHPLFR 6VLWR DWRDLQRXQHWDV
VWDWR GLPRVWUDWR FKH XQD GLHWD D EDVVR LQGLFH JOLFHPLFR SRWHVVH ULGXUUH LO UL
VRYUDSSHVR

6WXGLR

%HUJLD 5 (*LDFFR 5 +MRUWK 7 %LVNXS , =KX : &RVWDELOH * 9LWDOH 0 &DPS
'LIIHUHQWLDQ *O\FHPLF (IHFV RI /RZ YHUVXV +LJK *O\FHPLF ,QGH[0HGLWHUUDQHdq 6W'
'LDEHWHV 7KH 0('*, &DUE 5DQGRPLJHG &RQWUROOHG 7ULDO 1XWULHQWV KWW

7\$*6 &15 GLDEHWHGLFH JOLFHWXGLR

%VXMGSPS TVIGIHIRXI

7XYHMS /IXS 1IH JE YR GSRJVSXRS XVE PI HYI HMIXI TIV MP GSRXVSPPS HIP
HMEFIXI

%VXMGSPM (M TM6 HIPPS WXIWW S EYXSVI

7XYHMS /IXS 1IH JE YRRE VIZMWMSRI HIKPMEWYEFM EYXSVIERE 40SSGSHSVSR KS VXMJMG ENIX EP ETMERIXIVVE
GSRJVSXRS XVE PI HGERIRPEIHMPEFIXI YR EMYXS GSRXVS W S ZMSEPTMMSRI > MXEPS Q R K P X W V C E R R E V E S H E
GSRXVSPPS HIP HMEFIXI SFIWMPX PE GEVIR^E HM ZMXE Q M R X I V S Q S R H S



(11\$9,9, ,7

0\$57('Ž /8*/.2 | +RPH

&HUFDC

&RPXQL 3URY 60QRYLQFLD (QWQD r 3DJLQWJLRQL SURYDQWWD 5HJLRQVWHLFLDQD]HBUUVLFDWR
 6HWWLPDQD(6DQWDL 3LW 6DO)6FHOWRBR FLOPDQDFR H 6DQWR3GHORJQ BHLRVRQDJJLR G3FLOVBRQFR
 9LGR 6LFLDQ //LYH IRFZOG PHPRUHLVÆ \$*2; 3Æ 4 %RUJKHVH
 3XEEOLUHGD&RRQDLGL/DZ 8(%

6MUJN μ1GUDQJKHWD DUUVWL H VHTXHVWUDWL EHQL SHU PLOLRQL LQ ,WDOLD H DOO(VWH

0 +RPH 6DQWPHQWL D EDVVR LQGLFH JOLFHPFR SUHYHQJRQR LO GLDEHWH

"MJNFOUJ B CBTTP JOEJDF HMJC

2 VFRQGLD 6DOXWH

8QD GLHWD FRQ EDVVR LQGLFH JOLFHPFR SRWUHEEH SUHYHQLUH
 WLSR 4XHVWR LO ULVXOWDWR GHOR VWXGLR 0(*, &DUE SXEOL
 1XWULHQWV FRQGRWWR GD ULFHUFDWRL GHOOÉ,VWLWXWR GL VFLHQJH
 GHOOÉDOLPHQWJLRQH GHO &RVLJOLR QDJLRQDOH GHOOH ULFHUFKH GL \$YHOOLQR
 &QU ,VD LQ FRODERUDJLRQH FRQ OÉ8QLWGLDEHWH QXWULJLR
 PHWDEROLVPR GHOOÉ8QLYHUVLWGLHGHULFR ,, GL 1DSROL H OH 8QL
 3XUGXH 86\$ H &KOPHUV 6YHJLD ,O JUXSSR GL ULFHUFD KD YDO
 FRPH LO SURILOR JOLFHPFR JLRUQDOLHUR GL LQGLYLGXL LQ VRYU
 VHJJD GLDEHWH IRVVH LQIOXHJJDWR GDOOD GLHWD

É,O SULQFLSDOH SUHVXSSRVWR GL TXHVWR VWXGLR a UDSSUHVHQ'
 GRSR LO SDVWR SX' HVVHUH XQD VWUDWHJLD HILDFDH SHU ULGXUI
 JOLFHPD SRVWSUDQGLDOH UDSSUHVHQWD OÉLQLJLR GHO SURFHVV
 5RVDOED *LDFFR ULFHUFDWULFH QHOOÉ\$UHD GL QXWULJLRQH XPDC
 UHVSRQVDELOH GHO SURJHWWR GL ULFHUFD

3UHFHGHQWL VWXGL KDQR GLPRVWUDWR FKH DOLPHQWL DG DWR
 SROHQWD OD SLJJD H OH SDWDWH Æ IDYRULVFRQR OÉDXPHQR GHOD JOLFHPD 3HUWDQWR OH SH
 PDQWHQHUR VRWR FRWUROOR OD JOLFHPD GRSR LO SDVWR GHYRQR ULGXUOH LO FRQVXPR GL TX
 SUHIHUHQGR QRQ VROR TXHOOL ULFFKL LQ ILEUH FRPH OHJXPL IU;
 FRQ XQ EDVVR LQGLFH JOLFHPFR FRPH OD SDVD LO ULVR SDUERLOHG OH SLDGLQH 7XWWDYLD
 VH DQFKH SHU OH SHUVRQH LQ VRYUDSSHVR D ULVFKLR GL VYLOXSSDUH LO GLDEHWH WLSR SRVVI
 DOLPHQWDUL FKH WHQJDQR FRQR GHOOÉLQGLFH JOLFHPFR

É6DSSLDPD GD SUHFHGHQWL ULFHUFKH FKH OD GLHWD PHGLWHUUDQHD ULGXFH LO ULVFKLR GL GLDEH
 DQFKH VH HVVD VL FDUDWHULJJD SHU XQ XVR SUHIHUHQJLDQGL DOLPHQWL D EDVVR LQGLFH JOLF
 VFHOWD GL TXHVWL DOLPHQWL DEELD XQ UXROR QHOOD SUHYHQJLR
 ULFHUFDWULFH GHOD)HGHULFR ,, H FRDXWULFH GHOR VWXGLR

+DQR SDUWHFLSDWR DOOD ULFHUFD SHUVRQH LQ VRYUDSSHVR D IIVFKIR GI VYIOXSSDUH IO G
 FHQWUL XQLYHUVLWDUL LQ ,WDOLD 6YHJLD H 86\$ \$G HVVH YHQLYD

(11\$9,9, ,7

EDVH GL FHUHDOL FRQ GLYHUVR LQGLFH JOLFHPFR SHU XQ SHULRGR GL WUH PHVL WXWWH OH DOWU HUDQR LGHQWLFKH QHL GXH JUXSSL Ē3HU IDFLOLWDUH OĒDGHVLRQH DOOD GLHWD L SURGRWWL DG JOLFHPFR YHQLYDQR IRUQLWL JUDWXLWDPHQWH DL SDUWHFLSDQW _____ H DYHYDPR LSRWLJJDWR LO SURILOR JOLFHPFR JLRUQDOLHUR PLVXUDWR PHGLDQWH SUHOLHYL HIIHWI GRSR OD FRODJLRQH H LO SUDQJR ILQR DO WDUGR SRPHULJJLR DXPHQWDYD GRSR WUH PHVL GL GLH' DOWR LQGLFH JOLFHPFR PHQWUH ULPDQHYD LQDOWHUDWR LQ FROPIIP FKH HIIHQD VWDWI DUVH IDQV JOLFHPFR /D GLIIHUHQJD SL» PDUFDWD WUD L GXH JUXSSL VL UHJ _____ FI FKH DOOD ILQH GHOOĒHVSHULPHQR HUD SUHVVRFK« GLPHJJDWD QHO JUXSSR FRQ GLHWD D EDVVR L ULIHULVFH *LXVHSSLQD &RVWDELOH ULFHUFDWULFH GHOOĒ8QLYHUVLWĉ)HGHULFR ,, H FRDXWULFH G

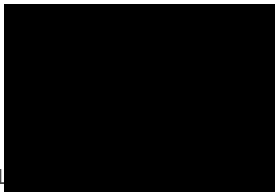
4XHVWR ULVXOWDWR HUD FRQIHUPDWR GDOOD PLVXUDJLRQH LQ FRQWLQXR GHOOD JOLFHPFR LQ FRQ(FKH YHQLYD HIIHWWXDWD SHU WUH JLRUQL DOOĒLQLJR H DOOD ILQH GHOOOR VWXGLR PHGLDQWH XQ) EUDFFLR Ē*UDJLH D TXHVWD PHWRGRORJLD LQQRWDWLYD DEELDPR SRWYWR GREYPHQWDIIP FKH IIIHT RVFLOODJLRQL GHOOD JOLFHPFR QHOĒĒDUFGR GHOOH RUH VRQR S_____ L SRVVRQR HVVHUH QRWHYRPHQWH DWXWLWH FRQ OD GLHWD D EDVVR LQGLFH JOLFHPFR Š QRWR GDQQHJJLDQR OD SDUWH GHOOH DUWHULH H IDYRULVFRQR OR VYLOXSSR GL DUWHULRVFOHURVLĪ FF GHOOD)HGHULFR ,, FRDXWRUH GHOOOR VWXGLR _____

Ē, ULVXOWDWL RWWHQXWL SRVVRQR HVVHUH XWLQD QDFKH SHU YDOXWDUH OĒLPSDWWR GHOOD GLHW SHU OR VWDWR GL VDOXWH , QXPHURVL GDWL UDFFRWL LQ TXHVWR VWXGLR VDUDQD XWI QIUDWL LQWHUDJLRQL WUD OD GLHWD OD IORUD EDWWHULFD LQWHVWLQDOH _____ OH GLIIHUHQJH LQWHUSHUVRQDOL QHOOD ULVSRVWD JOLFHPFR DOOD GLHWD QHOOD SURVSHWVLYD SUHFLVLRQHĪ FRQFOXGH *LDFFR

4IB -)DFHE - 7ZLW š 6WXPEOH ā /LQNH Ö 3LQWHUHYW

m⁶HYLRXV
6HQVRUH SRUWDWLOH ULOHYD LO YLUXV
GHO PRUELOOR QHOOD VDOLYD

3FMBUFE "SUJDMFT



6HQVRUH SRUWDWLOH ULOHYD LO YLUXV GHO PRUELOOR QHOOD VDOLYD
&HUYHOOR VFRSHUWL PHFFDQLVPL PRGXODWRUL QHOOH
1XRYR SRPRGRUR WUDVPLVVLRQL VLQDSWLFKH
ELRIRUWLILFDWR FRQWUDVWD OD
2 PLQXWL DJR FDUHQJD GL 9LWDPLQD ' 2



2x sKoo> 3Go>Scoc`>xSosqKo~> sKoo> !c`l3zBK "\$2 1 0 8 2 " 91 2 0

c_Ku1>]sukS>FKrK rSic t' Q]S >]S_K`rS > F>ppc S`ISGK Q]SGK_SGc]c loKxK`Qc`c

s`KIY' t%o]sQ]Sc t,,tt

S>FKrK rSic t' Q]S >]S_K`rS > F>ppc S`ISGK Q]SGK_SGc]c loKxK`Qc`c

3`> ISKr> oSGG> IS l>pr>' oSpc l>oFcS]KI K IS>IS`K c]roK > xKols Posrr> K]KQs_S lsh >Ssr>oK > loKxK`SoK S] IS>FKrK

IS Is>olc >Q`>--S

S>FKrK 2Sic | F>ppc S`ISGK Q]SGK_SGc]c `o IS`xK]]S`c KIKoSGc IS pr>rc Gc`lcrre Gc]]>Fco>~Sc`l oSGKoG>rcoS 3`SxKopSrB IS [3p>D K R>]_h [1xK~S>D

3`> ISKr>Fppc S`ISG Q]SGK_SGc FFK loKxK IS>FKrK IS`rStc t'rc S] oSps]r>rc IK]]c prOISo IsFF]SG>frrpSK`Gp`lc l> oSGKoG>rcoS IK]]A 1GSK`~K IK]]A>]S_K`r c`pSQ]Sc `>~Sc`>]K l IS`xK]]S`oO p>D S` Gc]]>Fco>~Sc`K Gc`] `sroS~Sc`K K`_Kr>Fc]

IK]]A SxKopSrB KIKoSGc]c IS`rStc t'rc S] IS`rStc t'rc S] oSGKoG> R> x>]sr>rc Gc`K S] locPS]c Q]SGK_SGc QSco`>]SKoc l PcppK S`P]sK`~>rc l>]]> ISKr>%

U] loS`GSI>]K loKpsllcprc IS nsKprc prsISc O o>llKpK`r>rc l>]]> Q]SGK_S> lclc S] l>prc lsh KppKoK s`> pro>rKQS> KPPSG>GK IKc]A>s_K`rc IK]]> Q]SGK_S> lcrplo>'IS>]K o>llKpK`r>]AS`S~Sc IK] _>]>rrS>U' oO p> IS`xK]]S`oO p>D S` Gc]]>Fco>~Sc`K Gc`] `sroS~Sc`K K`_Kr>Fc]

S>FKrK rSic t' ns>]S GSFS > F>ppc S`ISGK -oGKIK`rS prsIS R>`c IS`cpro>rc GRK >]S_K`rS >]]>]KcFS`S]c lc]K`r>']> IS`~> K`K`r>S]Gc`c]A>s_K`rc IK]]> Q]SGK_S>% -Koi lKo _>'rK`KoK pcrre Gc`roc]]c]> Q]SGK_S> lclc S] l>prc IKxc`c oS loKPKoK`lc `c` pc]c nsK]]S oSGGRS S` PSFoK' Gc`K]KQs_S' Posi nsK]]S Gc` s` F>ppc S`ISGK Q]SGK_S]GcS pG d>]6 FcS`K2`S]K`IS>IS`K pr>rc >llso>rc pK >`GRK IKo]K IKopc`K S` pcxo>llK`S`FKrK rSic t' p:

KppKoK srS]S pGK]rK >]S_K`r>oS GRK rK`Q>`c Gc`rc IK]]AS`ISGK

Ú1>IIS>_c l> loKGGIK`rS oSGKoGRK GRK]> ISKr> IS>FKK K`S`S`>:
>`GRK pK Kpp> pS G>o>rrKoS~> IKo s` spc loKPKoK`~S>]K IS >]
pK]> pGK]r> IS nsKprS >]S_K`rS >FFS> s` osc]c `K]]> loKxK`~Sc
Gc`_K`f>oS]K`> 8 SrS`K KoG>roK`KoS`Gc>srSGK IK]]c prsISc%

S>FKrK rSic †, Á SFS > F>ppc S`ISGK Q]SG
pF>]~S IS ~sGGRKoS >`GRK S` GRS `c` pcPF

]]> oSGKoG> R>`c l>orKGSi>rc ...Š, IKopc`K S` pcxo>IKpc1 > oS
`KS roK GK`roS s`SxKopSr>oS S` r>]S>1 1xK~S> K 3p>% I KppK
Gc` >]S_K`rS > F>pK IS GKoK>]S Gc` ISxKopc S`ISGK Q]SGK_SGc
G>o>rrKoSprSGRK IK]]> ISKr> Ko>`c SIK`rSGRK `KS IsK QosIIS%
>l >]rc c > F>ppc S`ISGK Q]SGK_SGc xK`Sx>`c Pco`SrS Qo>rsSr>
Gc`_K`p>]S >FSrs>]S% c_K >xKx>_c SlcrS~>rc1 S] locPS]c Q]SG
loK]SKxS KPPKrrs>rS cQ`S co> loS_> K lclc]> Gc]>~Sc`K K S] lo:
lclc roK _KpS IS ISKr> Gc` Q]S >]S_K`rS >l >]rc S`ISGK Q]SGK_S
GRK Ko>`c pr>rS >ppKQ`>rS >]]> ISKr> > F>ppc S`ISGK Q]SGK_S
pS oKQSpr>x> IKo]> oSplcpr> Q]SGK_SG> lclc S] lo>`c1 GRK >
IS_K~>r> `K] QosIlc Gc` ISKr> > F>ppc S`ISGK Q]SGK_SGc pS]KoS
IK]]> ASxKopSrB K KoS`c oSGK IK]]c prsISc%

/sKprc oSps]r>rc Ko> Gc`PKo_>rc l>]]> _Sps>~Sc`K S` Gc`rS`sc
`co_>]K GRK xK`Sx> KPPKrrs>r> IKo roK QSc`S >]]AS`S~Sc K >]
S_IS>`r>rc ps] Fo>GGSc% Ú o>~SK > nsKpr> _Krc]cQS> S`cx>r:
PoKnsK`rS K _>oG>rK cpGS]]>~Sc`S IK]]> Q]SGK_S> `K]]Á>oGc lK
S] IS>FKrK K GRK KppK lcpcc`c KppKoK `crKxc]_K`rK >rrsrSrK G
`crc GRK S ISGGRS Q]SGK_SGS l>`KQQS>`c]> l>oKrK IK]]K >ork
>orKoScpG]KocpS Ú F>SK]K S`SGc`KoS`Gc>srcoK IK]]c prsISc%

`s_KocpS l>rS o>GGc]rS p>o>`c srS]S~>rS >`GRK IKo Gc`loK`
P]co> F>rrKoSG> S`rKprS`>]K K S] locPS]c IKS _Kr>Fc]SrS l]>p_>
S`rKoIKopc`>]S `K]]> oSplcpr> Q]SGK_SG> >]]> ISKr>1 `K]]> locpl

KQQS >`GRK,

1>]xS`S, Á RS loK`IKoB ISw xcrS `K] Iz S`ISGI
o>G\ ccl PoSs]>`K, l>]]> 0KQSc`K >]roS >SsrS
srrS İ l Đ >l PP>oS, Á2S xK`l> S] o>pS]K
_c pPcQc IS os`Krr> l>]]> ``s`~S>r>, Á!S (
2oK`col1]K ocr>SK spso>`c rocIlc]K oscrK, Gc
1>`~Sc`S1 xS> >]]Á>]]K`r>_K`rc IKo Q>p K Qo>`c
_osIlc 1, >] xS> S] Gc`xcQ]Sc pIKGS>]K 2c
_, >IKorK c]roK †, lcpS~Sc`S IS]>xcoc ro

_pGoSxSrS >]]> Kyp]KrrKo

c`_K`r

2 1,

IS>FK K]SGK SKISGS`p>]srK

&,148(&2/211(,7 :(%

)DWW&XOWX0HR QGL&RQWHV1HLZV 6SRUW6WRUL&RPXQI

6SHFFKL 'RSSLLQHIDJR 3DOFRVFRHDLGFRS IIDL0JXDUGR DG (&VOHLGRVFR'SICRQH « QRQ VR3DUROH 0KULFVDFRSR GL

35(9,6,21, 0(7(2 ,7\$/, \$

/(35(9,6,21, 3(5 /\$ 78\$ /2&\$/,

,QVHULVFL OD WXD ORFDC

0HWHR

0HWHR RJJL VYRO
FRQ WHPSRUDOL H

/1RURVFRSR GL &KL

2URVFRSR GL &KLU'
/XJOLR

/XJOLR

\$OLPHQWL D EDVVR LQG
SUHYHQJRQR LO GLDEHV

9HGL WXWWR

6FULW0DUER 7RUWRULHOOR

6SHFFKL 'RSSL

&,148(&2/211(,7 :(%

8QD GLHWD FRQ EDVVR LQGLFH JOLFHPFR SF
4XHVWR LO ULVXOWDWR GHOR VWXGLR 0('*,

H

\$QWUWLGH DOOD ULFHUF D GH OJKLDFL

\$UURZV SHU ODFKHRORJLD PDULQD GL G

/XJLR

&ULVL GL JRYHUQR (,WDOLD ID VHPSUH K

)LJOL GL 3XWLQ H VWRULD VEDJO

9HGL WXWWR

8QD GLHWD FRQ EDVVR LQGLFH JOLFHPFR SRWUHEEH SUHYHQLUH LO GLDEHWH GL
GHOR VWXGLR 0('*, &DUXW SXEFRORJLD ULFHUF DWR
GHOR DOLPHQWDLRQH GH O RQVLJOLR QDLRQDOH GHOC
FRQ O 18QLWj GLDEHWH QXWULJLRQH H PHWDEROLVPR GH
GL 3XUGXH 86\$ H &KDOPHUV 6YHJLD ,O JUXSSR GL ULF
JLRUQDOLHUR GL LQGLYLGXL LQ VRYUDSSHVR PD VHQJD G

FL
R
R
I I
DV

\$OLPHQWL D EDVVR LQGLFH JOLFHP

3,O SULQFLSDOH SUHVXSSRVWR GL TXHVWR VWXGLR q UD
OD JOLFHPLD GRSR LO SDVWR SXz HVVHUH XQD VWUDWHJ
LQIDWWL O 1DXPHQWR GHOD JOLFHPLD SRVWSUDQGLDOH
VYLOXSSR GHOD FRODOWDD*LDFFRULFHUF DWRULFH QHO
H PHWDEROLVPR SUHVVR LO &QU ,VD GL \$YHOOLQR H UHVSRQVDELOR GH O SURJHWW

\$UWLFOH ODU

Q'
H
R
XF

3UHFHGHQWL VWXGL KDQR GLPRVUDWR FKH DOLPHQWL
ULVR OD SROHQWD OD SLJJD H OH SDWDWH ± IDYRULVFR
FRQ GLDEHWH SHU PDQWHQHUH VRWR FRQWUROOR OD J
TXHVWL DOLPHQWL SUHIHUHQGR QRQ VROR TXHOOL ULFF
LQWHJUDOL PD DQFKH TXHOOL FRQ XQ EDVVR LQGLFH JO
SLDGLQH

6RPPHVVDPHQWH

PL
IL
G
L
)

'LHWD PHGLWHUUDQHD"

36DSSL DPR GD SUHFHGHQWL ULFHUFKH FKH OD GLHWD PH
WXWWDYLD DQFKH VH HVVD VL FDUDWHULJJD SHU XQ XV
JOLFHPFR QRQ q QRWR VH OD VFHOWD GL TXHVWL DOLPH
PDODWWLD O DOLPHQD 9LWDOH ULFHUF DWRULFH GHOD)HC

I I
LP
IC
IH

+DQR SDUWHFLSDWR DOOD ULFHUF SHUVRQH LQ VR'
UHFOXWDWH QHL WUH FHQWUL XQLYHUVLWDUL LQ ,WDOLD
XQD GLHWD FRQ DOLPHQWL D EDVH GL FHUHDOL FRQ GLY
WXWWH OH DOWUH FDUDWHULVWLFKH GHOD GLHWD HU

/XJLR

\$OOD VFRSHUW GL ODFDJLQR

V
S
J

&,148(&2/211(,7 :(%

3HU IDFLOLWDUH O DGHVLRQH DOOD GLHWD L SURGRWV
JUDWXLWDPHQWH DL SDUWHFLSDQWL DOOR VWXGLR H DL
LSRWLJJDWR LO SURILOR JOLFHPLFR JLRUQDOLHUR PLVX
GRSR OD FRODJLRQH H LO SUDQJR ILQR DO WDUGR SRPHU
DOLPHQWL DG DOWR LQGLFH JOLFHPLFR /D GLIIHUHQJD S
ULVSRVWD JOLFHPLFD GRSR LO SUDQJR FKH DOOD ILQH GH
JUXSSR FRQ GLHWD D EDVVR LQGLVHSDQDHRVWDELOHUI
GHOO18QLYHUVLWJFRHGHUWERH,GHOOR VWXGLR

7RO.LQV HVWDWHQ
QHOO1XOWLPR EUXI
%HDFK' IY

9HGL WXWWR

5LVXOWDWL H FRQIHUPH

4XHVWR ULVXOWDWR DUULYD GDOOD PLVXUDJLRQH LQ FRO
3*UDJLH D TXHVWD PHWRGRORJLD LQQRWDWLYD DEELDPR :
RVFLOODJLRQL GHOD JOLFHPLD QHOO1DUFR GHOOH RL
FKH HVVH SRVVRQR HVVHUH QRWHYRPHQWH DWXWLWH
FKH L SLFFKL JOLFHPLFL GDQQHJJLDQR OD SDUHWH GHOC
DUWHULRVFOHU1DEULHFRPHSDVFDUGL GHODDWRNGHULFROR,

&RPXQLFKLDPF

,O 7RPROR HFRPPHUFH GL SURGRWWL WLSLFL LWDOLDQL

3, ULVXOWDWL RWWHQXWL SRVVRQR HVVHUH XWLOL DQFKI
ELRPDUFDWRUL ULOHYDQWL SHU OR VWDWR GL VDOXWH
XWLOLJJDWL SHU FRPSUHQQGHUH PHJOLR OH LQWHUDJLRQL
GHL PHWDEROLWL SODVPDWLFL DO ILQH GL LQWHUSUHWI
JOLFHPLFD DOOD GLHWD QHOOD SURVSHWWLYD GL XQD C

WI
W
D
U:
Q

&21',9,'

&RQWHVWL

6WRULH

ODULR 7RUWRULHOOR

8QLVFH OD SDVVLQRH SHU OD VFULWXXUD H OD FRPXQLFI
VHWWRUH \$SSDVVLQRDWR GL IXPHWWL YLGRJLRFKL H
DSSDVVLQRDWR GL FDOFLR 4XL D &LQTXH&RORQQH LQ G

RF
VL
JD

9HGL WXWWL JOL DUWLFROL GHOO \$XWRUH

/XJOLR

06&, QRPLQD &ULVWLQD %RQGRORZVNL &KLHI
0DUNHWLQJ 2IILFHU

1RYD VWRULD GL XQ
DOOD ULFHUFD GL WI

\$UWLFROR 3UHFHGHQWH

&RVWH PHGLWHUUI
GHL ULVFKL

3RWUHEEHUR SLDFHUWI

?) UU)b? P 4 ŸUóÑèòÑíèíí

Y a r „ - ^ A E r r ~ r A A - - a „ - • ^ ' a - • ^ © - • - 1 - A E 1/4 ^ ~ ~ ^
• - a A E 1/4 - ~ Ê - 1/4 ^ r 1 1/4 ^ Ó ^ a - 1/4 ^ - a „ - r ~ ^ A E ^ „ - A E - 1 -

Y a 1/4 ^ • ^ a A E ^ A E Ê „ - - a A E ^ 1/4 a r B - - a r a ^ 1 Ê ~ ~ a - • r A E - A Ê : Ê A E 1/4 - ^ a A E A A - A E A E - a ^ r - a ' r A E A E -
' a - • ^ © - • - A A A

Y a 1/4 ^ • ^ a A E ^ A E Ê „ - - a A E ^ 1/4 a r B - Ê A E 1/4 ^ A E A E a - r A E r - A Ê ' r A E A E - • - ^
Ê a r „ - ^ A E r r ~ r A A - - a „ - • ^ ' a - • ^ © - • - 1 - A E 1/4 ^ ~ ~ ^ • - a A E 1/4 - ~ Ê - 1/4 ^ r 1 1/4 ^ Ó ^ a - 1/4 ^ - a
A E - 1 - í A ? ~ - ^ A E A E - Ó - P r a Ê A E A E - 1/4 ^ A E A E - A r a r
1/4 - • ^ 1/4 • r A E 1/4 - • ^ a a a é 1/4 ^ r „ - a Ê A E 1/4 - B - - a ^ Ê © r a r ^ © ^ A E r ~ - a - A © - 1 1/4 ^ A A - - a a ,
Ó ^ a a - a - ^ 1/4 ^ A ' - a A r ~ - a ^ „ ^ a 1 1/4 - ' ^ A E A E - „ - 1/4 - • ^ 1/4 • r

r a - a 1 ^ 1/4 „ ^ 1/4 ^

?) UU)b? P 4 ŸUóÑèòÑíèíí

9 ^ ' a - - r a a ^ a r 1/4 A - - a A ^ A E A E - © r a r - a ^ a Ó ^ ç ^ a „ Ê
ò ò © - a Ê A E - „ - r a a ^ a r © ^ a A E - - a A E ^ a A - a ^ a Ó ^ ç ^ a „ r 1/4 ^ ~ ~ 1/4 - ' a - A E ^ A A - ~ ^ a ' - • - „ -
Ê a r a a ^ a r © ^ a A E - „ - í ð è © - a Ê A E - „ - - a A E ^ a A - A E w © - „ 1/4 r A E r ' r A E A E - - a A ^ A E A E - © r a r A

?) UU)b? P 4 ŸUíÑèòÑíèíí

I Ê ~ ~ a - • r A E - - a 1/4 ^ 1 - 1/4 A E - a A E ' 1/4 r a ^ „ ^ a a é r A E A E - Ó - A E w „ -
„ - a r B - - a ^ ^ A E 1/4 r 1 - r a A E - - a) A E r a - r
I - í Ê - © - a - • - „ - a a ^ Ó ð ï • - a A E 1/4 - ï ñ Ó A ^ A E w © „ - r ñ è r a a - A © r A - a - - a
• 1/4 ^ A • - A E r r a • - ^ ' a - - Ó ^ 1/4 ó è

?) UU)b? P 4 ŸUíÑèòÑíèíí

U Ê © - 1/4 - - Ó r 1/4 - • - A E ~ Ê - a ^ a Ê - Ó ^ „ r a a r 1/4 - • ^ 1/4 • r
a „ - Ó - „ Ê r A E - Ê a a Ê - Ó - © ^ A E - „ - 1 1/4 • r 1/4 r A E A E 1/4 - B B r 1/4 ^ - A E Ê © - 1/4 - - Ó r 1/4 - • - • - ^ © - ' a - - 1/4 ^ w
a r „ - r ' a - A - ^ 1 1/4 © ^ A E A E 1/4 w „ - r Ó 1/4 ^ A E 1/4 r 1 - ^ A ^ © 1/4 ^ 1 - í © - 1/4 r A E ^

21% ,7

1(:6 '\$//(5(*,21,\$&&(662 \$// \$ 3\$(\$0,1,675\$=,21(75\$63\$\$*(17=,\$ \$*21% 675(\$0,1*
0< 21% È \$5(\$ 5,6(59\$7\$

25',1()250\$=,21(6(59,=, %\$\$+(\$ \$ /\$9252/(**, 1250\$7,9()\$4 &217\$77, \$99,6, 0< 21%

+RPH)DFHERR&QU DOLPHQWL D EDVVR LQGLFH JOLFHPLFR H SUHYHQJLRQH GHO GLDEHWH

&QU DOLPHQWL D EDVVR LQGLFH SUHYHQJLRQH GHO GLDEHWH

/XJOLR

8QD GLHWD FRQ EDVVR L JOLFHPLFR
SRWUHEEH SUHYHQLUH LO GLDEHWH GL WLSR
4XHVWR LO ULVXOWDWR GHOOR VWXGLR 0('*,
&DUE SXEEDWR
GD ULFHUFDWRUL GHOO ,VWLWXWR GL VFLHQJH
GHOO DOLPHQWDJLRQH GHO &RQVLJOLR QDJLRQD
GHOOH ULFHUFKH GL \$YHOOLQR &QU ,VD LQ
FROODERUDJLRQH FRQ O 8QLW GLDEHWH
QXWULJLRQH H PHWDEROLVPR GHOO 8QLYHUVLW

< 0D\D .UXFKDQRYD VKXWWHUVRFN FRP ±
5LSURGXJLRQH ULVHUYDWD

)HGHULFR ,, GL 1DSROL H OH 8QLYHUVLW GL 3X H &KDOPHU
GL ULFHUFD KD YDOXWDWR FRPH LO SURILOR JOLFHPLFR JLRUQDOLHUR
PD VHQJD GLDEHWH IRVVH LQIOXHQJDWR GDOOD GLHWD &RPH ULFKLHGHH 3DW
6HWWHPEUH

,O SULQFLSDOH SUHVXSSRVWR GL TXHVWR VWXGLR UDSSUHVHQWDW
DEEDVVDUH OD JOLFHPLD GRSR LO SDVWR SX² HVVHUH XGDVWJL
O LQFLGHQJD GHO GLDEHWH LQIDWWL O DXPHQWR GHOOD JOLFHPLD SF
O LQLJLR GHO SURFHVVR FKH SRUWD DOOR VYLOXSSR GHOOD PDODWWI
ULFHUFDWULFH QHOO \$UHD GL QXWULJLRQH XPDQD H PHWDEROLVPR SUI
H UHVSQRVDELOH GHO SURJHWR GL ULFHUFD

/ DUWLFROR **ZZZ** FCHU R WX

h v] š ••}] v] P o] u] } % } š Œ
] š] š] % } î r K] š š] À }

h v] š ••}] v] P o] u] } % } š Œ } v š Œ] μ] Œ % Œ À v] Œ] o
h v Œ v š •š μ] }] v š Œ v î] } v o % μ o] š } • μ E μ š Œ] v š • • } š š } o] v
••}] v] P o] u] } X X X
i
h v Œ v š •š μ] }] v š Œ v î] } v o % μ o] š } • μ E μ š Œ] v š • • } š š } o] v
••}] v] P o] u] } % } š Œ } v š Œ] μ] Œ % Œ À v] Œ] o] š
^ o μ š] o } u u v š } o o } š š } Œ •• Z } • o '] } U Œ] Œ š Œ] v
μ u v u š } o] • u } % Œ ••}] o v Œ r / •] À o o] v } Œ • % } v •] o o %
v } v % Œ Œ

6%'328-86%'> 786)88%1)28)8)24)327-)6-)4%630)08-1)(-%28)62%8-32%0

y 8VEGyI7EPYXI+PM EPMQIRXM E FEWWS MRHMG I KPMGIQMGS TVIZIRKSRS MP HMEFIXI

7EP

+PM EPMQIRXM E FEWWS MRHMG KPMGIQMGS TVIZIRKSRS MP HME

9RE HMIXE GSR YR FEWWS MRHMG I KPMGIQMGS TSXVIFFI GSRXVMFYMVI E
HMEFIXI HM XMTS -P TERI FMERGS MP VMWS PE TSPIRXE PE TM^AE I
JEZSVMWGSRS P~EYQIRXS HIPPE KPMGIQME



9RE HMIXE GSR FEWWS MRHMG I KPMGIQMGS TSXVIFFI TVIZIRMVI MP
XMTS 5YIWXS MP VMWYPXEXS HIPPS WXYHMS 1)(+- 'EVF TYFFPMG
2YXVMIRXW GSRHSXXS HE VMGIVGEXSVM HIPPI~WXMXYXS HM WGMIF
HIPPI~EPMQIRXE^MSRI HIP 'SRWMKPMS RE^MSREPI HIPPI VMGIVGLI H
'RV -WE MR GSPPEFSVE^MSRI GSR P~9RMXP HMEFIXI RYXVM^MSRI
HIPPI~9RMZIVWMXP *IHIVMGS -- HM 2ETSPM I PI 9RMZIVWMXP HM 4YV
'LEPQIVW 7ZI^ME -P KVYTTS HM VMGIVGE LE ZEPYXEXS GSQI MP T
KPMGIQMGS KMSVREPMIVS HM MRHMZMHYM MR WSZVETTIWS QE WIR
MRJPHYR^EXS HEPPE HMIXE

š-P TVMRGMTEPI T VIWYTTTSWXS HM
UYIWXS WXYHMS à
VETTVIWIRXEXS HEPPE
GSRWETIZSPI^^E GLI
EFFEWWEVI PE KPMGIQME HSTS
MP TEWXS TYî IWWIVI YRE
WXVEXIKME IJJMGEGI TIV VMHYVVI
P~MRGMHIR^E HIP HMEFIXI
MRJEXXM P~EYQIRXS HIPPE
KPMGIQME TSWXTVERHMEPI

VETTVIWIRXE P~MRM^MS HIP TVSGIWWS GLI TSVXE EPPS WZMPYTTTS
EJJIVQE 6SWEPFE +MEGGS VMGIVGEXVMGI RIPP~%VIE HM RYXVM^MS
QIXEFSPMWQS TVIWWS MP 'RV -WE HM %ZIPPMS I VIWTSRWEFMPI F
VMGIVGE

4VIGIHIRXM WXYHM LERRS HMQSWXVEXS GLI EPMQIRXM EH EPXS MR
GSQI MP TERI FMERGS MP VMWS PE TSPIRXE PE TM^^E I PI TEXE
JEZSVMWGSRS P~EYQIRXS HIPPE KPMGIQME 4IVXERXS PI TIVWSRI ()
TIV QERXIRIVI WSXXS GSRXVSPPS PE KPMGIQME HSTS MP TEWXS HI
GSRWYQS HM UYIWXM EPMQIRXM TVIJIVIRHS RSR WSPS UYIPPM VM
GSQI PIKYQM JVYXXE ZIVHYVE I GIVIEPM MRXIKVEPM QE ERGLI UY
FEWWS MRHMG I KPMGIQMGS GSQI PE TEWXE MP VMWS TEVFSMPIH
8YXXEZME RSR à QEM WXEXS ETTYVEXS WI ERGLI TIV PI TIVWSRI MF
WSZVETTIWS E VMWGLMS HM WZMPYTTEVI MP HMEFIXI XMTS TSW
YXMPM WGIPXI EPMQIRXEVM GLI XIRKERS GSRXS HIP P~MRHMG I KPM

š7ETTMEQS HE TVIGIHIRXM VMGIVGLI GLI PE HMIXE QIHM XIVVERIE VI
VMWGLMS HM HMEFIXI XMTS XYXXEZME ERGLI WI IWWE WM GEVEX
YWS TVIJIVIR^MEPI HM EPMQIRXM E FEWWS MRHMG I KPMGIQMGS RS
WGIPXE HM UYIWXM EPMQIRXM EFFME YR VYSPS RIPPE TVIZIR^MSRI
QEPEXXME> EJJIVQE 1EVMPIRE :MXEPI VMGIVGEXVMGI HIPPE *IHIVI
GSEYXVMGI HIPPS WXYHMS

,ERRS TEVXIGMTEXS EPPE VMGIVGE TIVWSRI MR WSZVETTIWS E
WZMPYTTEVI MP HMEFIXI VIGPYXEXI RIM XVI GIRXVM YRMZIVWMXEVI
97% %H IWWI ZIRMZE EWWIKREXE MR QSHS GEWYEPI YRE HMIXE GSI
E FEWI HM GIVIEPM GSR HMZIVWS MRHMG I KPMGIQMGS TIV YR TIVM
QIWM XYXXI PI EPXVI GEVEXXIVMWXMGLI HIPPE HMIXE IVERS MHIRX
KVYTTM š4IV JEGMPMXEVI P~EHIWMSRI EPPE HMIXE M TVSHSXXM E
MRHMG I KPMGIQMGS ZIRMZERS JSVRMXM KVEXYMXEQIRXI EM TEVXIG
WXYHMS I EM PSVS GSQQIRWEPM EFMXYEPM 'SQI EZIZEQS MTSXM^^
TVSJMP S KPMGIQMGS KMSVREPMIVS QMWYVEXS QIHM ERXI TVIPMIZM
SVE TVMQE I HSTS PE GSPE^MSRI I MP TVER^S JMRS EP XEVHS TSQI
EYQIRXEZE HSTS XVI QIWM HM HMIXE GSR KPM EPMQIRXM EH EPXS
KPMGIQMGS QIRXVI VMQERIZE MREPXIVEXS MR GSPSVS GLI IVERS W
EWWIKREXM EPPE HMIXE E FEWWS MRHMG I KPMGIQMGS 0E HMJJIVII
XVE M HYI KVYTTM WM VIKMWXVEZE TIV PE VMWTSWXE KPMGIQMGE
GLI EPPE JMRI HIP P~IWTIVMQIRXS IVE TVIWW SGLæ HMQI^^EXE RIP K'
HMIXE E FEWWS MRHMG I KPMGIQMGS> VMJIVMWGI +MYWITTMRE 'SW

VMGIVGEXVMGI HIPPI~9RMZIVWMXP *IHIVMGS -- I GSEYXVMGI HIPPS V
 5YIWXS VMWYPXEXS IVE GSRJIVQEXS HEPPE QMWEVE^MSRI MR GSRX
 KPMGIQME MR GSRHM^MSRM HM ZMXE RSVQEP I GLI ZIRMZE IJJIXYE
 EPP~MRM^MS I EPPE JMRI HIPPS WXYHMS QIHMERXI YR WIRWSVI MQ
 FVEGGMS š+VE^MI E UYIWXE QIXSHSPSKME MRRSZEXMZE EFFMEQS
 HSGYQIRXEVI GLI JVIUYIRXM I QEVGEXI SWGMPPE^MSRM HIPPE KPM
 RIPP~EVGS HIPPI SVI WSRS TVIWIRXM ERGLI MR GLM RSR LE MP H
 IWWI TSWWSRS IWWIVI RSXIZSPQIRXI EXXYXMXI GSR PE HMIXE E FEI
 KPMGIQMGS Ě RSXS GLI M TMGGLM KPMGIQMGM HERRIKKMERS PE T
 EVXIVMI I JEZSVMWGSRS PS WZMPYTTS HM EVXIVMSWGPVSWM) GSG
 6MGGEVHM HIPPE *IHIVMGS -- GSEYXSVI HIPPS WXYHMS

š- VMWYPXEXM SXXIRYXM TSWWSRS IWWIVI YXMPM ERGLI TIV ZEPYX
 HIPPE HMIXE WY EPXVM FMSQEVGEXSVM VMPIZERXM TIV PS WXEXS I
 RYQIVSWM HEXM VEGGSPXM MR UYIWXS WXYHMS WEVERRS YXMPM^^
 GSQTVIRHIVI QIKPMS PI MRXIVE^MSRM XVE PE HMIXE PE JPSVE FEX
 MRXIWXMREPI I MP TVSJMP S HIM QIXEFSPMXM TPEWQEXMGM EP JM
 HMJJIVIR^I MRXIVTIVWSREPM RIPPE VMWTSWXE KPMGIQMGE EPPE HI
 TVSWTIXXMZE HM YRE RYXVM^MSRI HM TVIGMWMSRI) GSRGPYHI +ME

HM 7

M RSWXVM TEVXRIVW

,QIRUPDWLYD

1RL H WHUJH SDUWL VHOHJLRQDWH XWLQJLDPR FRNLH R WHFQRORJLH VLPLQ SHU
 IXQJLRQDOLWj VHPSOLF' ³PLJLRUDPHQWR GHOO HVSHULHQD' ³PLVXUDJLRQDOLWj
 GHQ FRQVHQVR SXz UHQGHU QRQ GLVSRQLELOL OH UHODWLYH IXQJLRQL
 3HU TXDQR ULJXDUGD OD SXEOLJLRQDOLWj VHR LSHR VGLVPIR IXWH DORR DOLJDLRQH SUHFL
 DWWUDYHUVR OD VFDQVLRQDOLWj VHR LSHR VGLVPIR IXWH DORR DOLJDLRQH SUHFL
 GDWL GL XWLQJLR SHU OH VHOHJLRQDOLWj VHR LSHR VGLVPIR IXWH DORR DOLJDLRQH SUHFL
 RVVHUYDLRQL GHQ SXEOLFR H VYLOXSSR GL SURGRWWL
 3XRL OLEHUDPHQWH SUHVWDUH ULILXWDUH R UHYRFDUH LO WXR FRQVHQVR LQ TXI
 3XRL DFFRQVHQWLUH DOOJXWLQJLR GL WDOL WHFQRORJLH XWLQJLDQGR LO SXOVDC

SRH

6FRSUL GL SL• H SH

5LILXW

\$FFHWW

u•š Œ uW /vv}À ì}}v š v}o}P]]Œ]šš] oo-//

D^d Z Dp]• p r 2 /vv}À ì}}v š v}o}P]]Œ]šš] μ u v] 2]o š
oo š À}o Œ}š}v Z o- /•š]šμš} /š o] v}] μošμŒ] u•š
{•%o]š Œ]o %oŒ}•>+uÀ ĩšøUP]v]XŒ}PŒ uu oo }Œ íòXii
oo }Œ íóXiiU }Œ P v]ìì š} oo dZ]v]vP t š Œ u]oo ^}
>-]vv}À ì}}v š v}o}P] •š Œ v} vμ}À •}oμì}}v] %o Œ o} •À]oμ%o%
• ŒÀ]ì] v (]]} oo-μ u v]š U u o }u%o o ••]š oo š v}o}P]
%o}v v } v Z }•š }o] oo- ••}]• ŒÀ]ì] %oμ o]]U ou v} %o Œ }o
Z •}v} }o%o]š] o }•] šš} 2]P]š o]À] 2X /v}ošŒ U o-μ•}]
μš}Œ]š P}À Œ v š]À %oμ~ μ• Œ μv ((šš} 2(Œ š oo} u PP]}Œ 2(
šš]À]š μdZv &Z]v]vP t š Œ u]oo ^}] šÇ μv-}Œ P v]ìì ì}}v }v
%o Œ }uμ}À]v %o Œ š] }o Œ]o] šš]š} o} • u]}]] šŒ]•
%o v}Œ u }v}u] }U μošμŒ o •}] o U μv]š u v š oo- v o
}u%o}Œ š v}U o (]v]]v]À] μ Œ o %o}••]]o] }%o%o}Œ šμv]š • šŒÀ
Œ}š}v • Œ %o Œ š]• oμš]] D Œ]}] 'μo]}U %o Œ š v Œ] W À
]v š ŒÀ v š]]W ']}À vv] Œ o} Œ μv}U Œ] Œ š}Œ • v]}Œ]v]Œ
'] }U ••]•š v š]v]Œ]šš} /v š Œ v ì}}v o o 'Œ}š]μ• v š Œ (}Œ /v
&μoÀ]} D Œ] W o}u]v}U %o Œ }(••}Œ]]Œ]šš} /v š Œ v ì}}v o oo-
(μvì}}v Œ]} o P o ••}] š} oo <}•}À} ^%o] o]•š Z u Œ•X >
W o}u]v}X ~]••

/ \$ 0 (6 & 2 / \$ 1 = \$ & 2 0

4 % +) 0 0) ' 0 % 7 7 - 8 3 6 } % 0 0) () 0 0 % 0 7 () 6 3 (0 6 % 8 8 - 1 3 * 9 7 8) 8 8 (8 3) 1 4 0) % 2 2 6 ' % 8 - 3 2 8 % 8



, 3 8 8 3 4 - 7 0 9 + 0 - 3 ` 8) 6 2 % % 0 :- % 0 - 8) 6 % 9 8 3 6 - > > % 8 - : 3 4) 6 9 2 2 9 :

, 3 1) (- 8 3 6 - %

1 ERKMERHS GMFM E FEWWS MRH KPMGIQMGS WM TYÎ TVIZIRMVI M

0 9 + 0 - 3



9RE HMIXE GSR FEWWS MRHMG I KPMGIQMGS
TSXVIFFI TVIZIRMVI MP HMEFIXI HM XMTS
5YIWXS MP VMWYPXEXS HIPPS WXYHMS 1)(+- 'EVF
TYFFPMGEXS WY 2YXVMIRXW GSRHSXXS HE
VMGIVGEXSVM HIPP~-WXMXYXS HM WGMIR^I
HIPP~EPMQIRXE^MSRI HIP 'SRWMKPMS RE^MSREPI
HIPPI VMGIVGLI HM %ZIPP MRS 'RV -WE MR
GSPPEFSVE^MSRI GSR P~9RMXP HMEFIXI RYXVM^MSR
I QIXEFSPMWQS HIPP~9RMZIVWMXP *IHIVMGS -- HM 2ETSPM I PI 9RMZIVWM
97% I 'LEPQIVW 7ZI^ME -P KVYTTTS HM VMGIVGE LE ZEPYXEXS GSQI MP
KPMGIQMGS KMSVREPMIVS HM MRHMZMHYM MR WSZVETTIWS QE WIR^E HM
MRJPYIR^EXS HEPPE HMIXE \$-P TVMRGMTEPI TVIWTTSWXS HM UYIWXS W
6SWEPFE +MEGGS VMGIVGEXVMGI RIPP~%VIE HM RYXVM^MSRI YQERE I QI
MP 'RV -WE HM %ZIPP MRS I VIWTSRWEFMP I HIP TVSKIXXS HM VMGIVGE • à
HEPPE GSRWETIZSPI^E GLI EFFEWWEVI PE KPMGIQME HSTS MP TEWXS TY
WXVEXIKME IJJMGEI TIV VMHYVVI P~MRGMHIR^E HIP HMEFIXI MRJEXXM
KPMGIQME TSWXTVERHMEPI VETTIVIRXE P~MRM^MS HIP TVSGIWWS GLI T
HIPPE QEPEXXME› 4VIGIHIRXM WXYHM LERRS HMQSWXVEXS GLI EPMQIRXI
KPMGIQMGS • GSQI MP TERI FMERGS MP VMWS PE TSPIRXE PE TM^E I P
JEZSVMWGSRS P~EYQIRXS HIPPE KPMGIQME 4IVXERXS PI TIVWSRI GSR H
QERXIRIVI WSXXS GSRXVSPPS PE KPMGIQME HSTS MP TEWXS HIZSRS VMH
UYIWXM EPMQIRXM TVIJIVIRHS RSR WSPS UYIPPM VMGGLM MR JMFVI GSC
ZIVHYVE I GIVIEPM MRXIKVEPM QE ERGLI UYIPPM GSR YR FEWWS MRHMG I
PE TEWXE MP VMWS TEVFSMPIH PI TMEHMRI 8YXXEZME RSR à QEM WXE
TIV PI TIVWSRI MR WSZVETTIWS E VMWGLMS HM WZMPYTTEVI MP HMEFIX
IWWIVI YXMPM WGIPXI EPMQIRXEV M GLI XIRKERS GSRXS HIPP~MRHMG I KPI
HE TVIGIHIRXM VMGIVGLI GLI PE HMIXE QIHM XIVVERIE VMHYGI MP VMWGL
YXXEZME ERGLI WI IWWE WM GEVEXXIVM^E T :P
FEWWS MRHMG I KPMGIQMGS RSR à RSXS WI PE W :-() 3 4 % +) 0 0) ' 0 % IQ
RIPPE TVIZIR^MSRI HM UYIWXE QEPEXXME› EJJIVGE TEVMPFIRE .MÆEPI VM

/ \$ 0 (6 & 2 / \$ 1 = \$ & 2 0

*IHIVMGS -- I GSEYXVMGI HIPPS WXYHMS ,ERRS TEVXIGMTEXS EPPE VMG
 MR WSZVETTIWS E VMWGLMS HM WZMPYTTEVI MP HMEFIXI VIGPYXEXI RIM
 YRMZIVWMXEVM MR -XEPME 7ZI^ME I 97% %H IWWI ZIRMZE EWWIKREXE MI
 YRE HMIXE GSR EPMQIRXM E FEWI HM GIVIEPM GSR HMZIVWS MRHMG I KPM
 TIVMSHS HM XVI QIWM XYXXI PI EPXVI GEVEXXIVMWXMGLI HIPPE HMIXE I
 HYI KVYTTM
 §4IV JEGMPMXEVI P^EHIWMSRI EPPE HMIXE M TVSHSXXM EH EPXS S E FEV
 • VMJIV^M^V^G^M^I^T^T^M^R^E^ 'S^M^G^X^E^E^F^M^K^P^I^M^G^I^ HIPP~9RMZIVWMXP *IHIVMGS -- I
 GSEYXVMGI HIPPS WXYHMS • ZIRMZERS JSVRMXM VEXYXME QIRX EVM EV
 I EM PSVS GSQQIRWEPM EFMXYEPM 'SQI EZIZEQS MTSXM^A^E^X^S MP TVSJM
 KMSVREPMIVS QMXYVEXS QIHMERXI TVIPMIZM IJJI^E^X^S^A^R^M^S^E^M^V^M^
 GSPE^MSRI I MP TVER^S JMRS EP XEVHS TSQIVMKMS EYQIRXEZE HSTS X
 GSR KPM EPMQIRXM EH EPXS MRHMG I KPMGIQMGS QIRX VMCB^R^E^M^E^P
 IVERS WXEXM EWWIKREXM EPPE HMIXE E FEWWS MRHMG I KPMGIQMGS OE
 QEVGEXE XVE M HYI KVYTTM WM VIKMWXVEZE TIV PE VMWTSWXE KPMGIQM
 GLI EPPE JMRI HIPP~IWTIVMQIRXS IVE TVIWWSGL^E^H^M^Q^I^E^X^E^Y^K^K^I^R^X^I^H^T^S
 FEWWS MRHMG I KPMGIQMGS 5YIWX S VMWYPX^E^S^E^S^I^E^O^G^T^R^I^D^E^H^S^H^E^P
 GSRXMRYS HIPPE KPMGIQME MR GSRHM^MSRM HM G^A^P^E^A^G^E^S^E^M^Z^S^X^M^R^M
 KMSVRM EPP~MRM^MS I EPPE JMRI HIPPS WXYHMST^E^M^M^I^R^P^R^E^M^W^T^R^S^E^K^I^M
 FVEGGMS \$+VE^MI E UYIWXE QIXSHSPSKME MRRS^Z^E^R^M^Z^H^I^E^F^M^E^O^S^S^X^Y^>
 GLI JVIUYIRXM I QEVGEXI SWGMPPE^MSRM HIPPE KPMGIQME RIPP~EVGS HI
 TVIWIRXM ERGLI MR GLM RSR LE MP HMEFIXI I GL 0)++- TSWWSRS IWWIVI
 EXXYMXI GSR PE HMIXE E FEWWS MRHMG I KPMG È RSXS GLI M TM
 HERRIKMERS PE TEVIXI HIPPI EVXIVMI I JEZSVMWGSRS PS WZMPYTTS HM
 GSQQIRXE +EFVMIP I 6MGGEVHM HIPPE *IHIVMGS -- GSEYXSVI HIPPS WXYI
 §- VMWYPXEXM SXIRYXM TSWWSRS IWWIVI YXMPM ERGLI TIVIZE^P^I^X^E^E^V^I^I^P
 WY EPXVM FMSQEVGEXSVM VMPIZERXM TIV PS WXEXS HM WE^P^E^X^I^W^M^R^M^Q^I^V
 UYIWX S WXYHMS WEVERRS YXMPM^A^EXM TIV GSQTVIRHIVI QIRX^M^S^H^I^R^X^M
 HMIXE PE JPSVE FEXXIVMGE MRXIWXMREPI I MP TVSJMP S HIM QIXEFSPMX
 MRXIVTVIXEVI PI HMJJIVIR^I MRXIVTIVWSREPM RIPPE VMWTSWXE KPMGIQM
 TVSWTIXXMZE HM YRE RYXVM^MSRI HM TVIGMWMS^E^I^G^S^R^S^E^M^M^E^O^O^S

OJ 4 EKIPPI
 PEWWMJM
 GSQYRMGE

0)++-

4%+)00) '0%77

834-'7&EWS -RHMGI' M F M ECFM GVS Y TTS (M 6 MGI
 -RGMHITX EEXIKME J K JMHGMSG I

[4 VIZMSY W T2S WXT SWX

6)0%8)(%68-007

(MEFIXI 7MKRSVI HSTS M (MEFIXI I '3:-(GEXXMZE &RPPXQLFDWLRQ PDUNH
 HEPP~RXIPP M K R M E R H E X I G M G E R Q I M E H M T M # M S R I Y G G M H I
 EVXMJMGMEPT MRHMG EVM X X Y M EPMQIRXE^MSRI YGGMHI
 TIV PE XIVETME TM6 HIP JYQS PHGLD

%00) '-259) (00) 716%

0% 46)7% ()00% &%
 (96%28) 0% 6-:309>
 *6%2')7)

7* 6.< ,7

sky (VSORUD 6N\ 7J 6N\ 6SRUW 6N\ 9LGHR

sky *29(51 /\$'5, ', \$&48&&5\$,1\$ &29,' 6.< 92 : ,// 3(5 6.< 7*63(77\$&2/:

6\$/87((% (1(66(HZV\$SSURIRQG L\$FOH@WQWDqH@QFL@DYLG

6\$/87((% (1(66(5(

8QD GLHWD D EDVVR LQGLFH JOLFHPL
VWXGLR

OXJ

3L[DED\



LQGLFDUOR XQR VWXGLR FRQGRWWR GDL ULFHUFDWRUL GHOOØ,
LQ VRYUDSSHVR D ULVFKLR GL VYLOXSSDUH OD PDODWWLD

▶ \$6&2/7\$ \$57, &

&RQGLYLGL

,V FULYLWL DOOD QRVUD QHZVOHWWHU SHU UHVWDUH VHPSUH DJJLRU

8Q UHFHQWH VWXGLR FRQGRWWR GDL ULFHUFDWRUL GHOOØLQGLFH JOLFHPL
GLHWD FRQ XQ EDVVR LQGLFH JOLFHPLGFRD S@W@H@B@H@F@O@H@B@H@V@R@Ø@H@
VYLOXSSDUH OD PDODWWLD , ULVXOWDWL GHOR VWXGLR FRQGRWWR
GHOOØ8QLYHUVLW¢)HGHULFR ,, GL 1DSROL H OH 8QLYHUVLW¢ GL 3XUG

GHOOD ULYLVW ~~WLSHFQWOL~~]]DWD

/R VWXGLR QHO GHWWDJOLR



'LDEHWH RJQL DQQR FROSLVFH PLOLRQL GL LWDOLDQL H FDXVD PL

/D ULFHUFD KD FRLQYROWR SHUVRQH ~~GQDERVHDSWD~~ HDQHLVW ~~KLHRFG~~
6YH]LD H 8VD \$L SDUWHFLSDQWL a VWDWD DVVHJQDWD LQ PRGR FDVXD
JOLFHPFR SHU XQ SHULRGR GL WUH PHVL Ò&RPH DYHYDPR LSRWL]]DW
HIIHWWXDWL RJQL RUD SULPD H GRSR OD FROD]LRQH H LO SUDQJR ILQI
DOLPHQWL DG DOWR LQGLFH JOLFHPFR PHQWUH ULPDQHYD LQDOWHU
JOLFHPFR /D GLIIHUHQ]D SL» PDUFDWD WUD L GXH JUXSSL VL UHJLVW
GHOODHVSHULPHQWR HUD SUHVVRFK« GLPH]]DWD QHO JUXSSR FRQ GLH
ULFHUFDWULFH GHOOD8QLYHUVLWç)HGHULFR ,, H FRDXWULFH GHOOR \
, ULVXOWDWL

, ULVXOWDWL HPHUVL VHFRQGR L ULFHUFDWRUL SRWUHEEHUR DLXWDI
ULOHYDQWL SHU OR VWDWR GL VDOXWH
, QXPHURVL GDWL UDFFRWL LQ TXHVWR VWXGLR VDUDQQR XWLQ]]DV
LQWHVWLQDOH H LO SURILOR GHL PHWDEROLWL SODVPDWLFL DO ILQH
GLHWD QHOOD SURVSHWWLYD GL XQD QXWUL]LRQH GL SUHFLVLRQHÓ

- ', \$ % (7 (



8QD GLHWD D EDVVR LQGLFH JOLFHPFR DLXWHUHE
6\$/87((% (1(66(5(
\$ LQGLFDUOR XQR VWXGLR FRQGRWR GDL ULFHUFDWRUL GHOOD,VWLW
OXJ

:25/'0\$*\$=\$,1(,7

X [ĀW-ž ŸŽ-žW(Ā+•'XIVXXIXñ[]

'ž••ž1 Žœ™~œš('ž1ñ1)'Āœ+šœš(œ+)'œ'1 ž)œ1~ž) Ÿ 'š—ž(11)Ÿ'•W_1 'Ÿž š•š1)

~ž ••'~)š ••žš•'š™ž•šœ~'1í1 ž•žš)š ž))'•'žœ~'•'šž—ž—žž'š••'

+RPH /LIHVWVœœD GLHWD D EDVVR LQGLFH JOLFHPLFR DLXWD D SUHYHQLUH LO GLDEHWH /R

—š1•'ž•š1š1<šœœ~1'—œž1••'œž
š'ž•š1š1™žžž—'ž1'•
œ•ž•'~

WZ1 ž••'1XVXX

/XJOLR

œœ)'Ÿ'•'1š•š1~œ•)š1—ž œ•ž•ž)1™ž)1žœ•šž1œž~™ž1š•'•0—š•0 * 9 6 '
—1)žœž—ž1œž•ž~1œ~—~•~1š'1)'œž)œš~'1ž•œ•'ž•~1'1œœž—žž1ž•š•š'—ž—šž'—žž••~1š1'~œ•)š~1œžžžš1š1žš1œ~1ž—1<šœœ~1'—œž1••'œž~'œ~1™ž)ž<ž1œ~•)™žžžž—ž1'1š<žž1'1'™~1X1—ž•ž1™žž)œ~ž1'—1œ~Ÿ)š™žžœžđ1š1)'œ~1'1œžŸ'•ž™ž)œž•š•š'1ž•ž~1œž•ž~đ1œ~—~•~1—1œ~•š<šžž'—ž1œ~1•—'œž1šžžžœž•ž~žž1ž1—ž•ž•—Ÿž)œž•ž1žž)œ~1š™~'1ž1ž1—Ÿž)œž•ž1žž)žžžđ1—ž•ž1œžšđ1ž1'š—ž)œžđ1œ~~1œžš•'1™žž<œžš•'1œžž•ž1™žš—ž1ž•š1)'Ÿ'œžš1œž™žžœžš'žžšš1žžž—œž

m *LX

OS WXYHMS RIP HIXXEKPMS



631)

(MEFIXI SKRM ERRS GSPTMWGI QMPMSRM HM MXEPMERM I GEYWE

š1)'œž)œžš1š1œ~—Ÿ~•~1W\1™žž)œ~ž1'—1œ~Ÿ)š™žžœžđ1š1)'œœ'~1'1œžŸ'•ž™žšž1'œž

- VMWYPXEXM

1)'œž•š•'1ž—ž)œžđ1œžœ~—~1'1)'œž)œš~'đ1™ž)ž<ž)~1šžšž1š1Ÿšžšž1'1™~œœ'('žž•š•š'—ž—šž'—ž1œž1š••)'1<'~š)œš~'1)'žžš—'1™žž)1~1œžš•~1'1œžš•žžĩ
1—ž—ž)œž'1š•'1šœœ~•'1—1šžžœ~1œžž•~1œžšš—~1ž•'•žžš•'1™žž)1œ~™žž—ž—žž1žž•'—žšž'~'1)š1š1'žšđ1š1•~š1<š•ž)'œžš1—žœž'—šž1žžžšš'~'1™žšžžžžž1ž1'•žžž—žž1'—žž)œž—š'1—žžš1)'œž™žœžš1•œžž—œžš1š•š1'žšđ1—žž•ž'ž~—ž1'1™žžœž'œž~žđ1š1œ~—œžžœ~1'šœœ~ĩ

)96 4EIWM QIQFVM †

~•ž1ñ1 "œ1•XZ

97(

DEEDVVDUH OD JOLFHPLD GRSR LO SDVWR SX' HVVHUH *HQQDLR FD
OÍLQFLGHQJD GHO GLDEHWH LQIDWWL OÍDXPHQWR GH('LFHPEUH UD
OÍLQLJLR GHO SURFHVV FKH SRUWDOO SRVVDQES G'1RYHPEUH
*LDFFR LFHUFDW\$UHFHGHQWULJLRQH XPDQD H PHWDEROL 2WWREUH
\$YHOOLOR HVSRQVDELOH GHO SURJHWWR GL ULFHUFD 6HWWHPEUH
\$JRVWR
3UHFGHQWL VWXGL KDQQR /XJOLR
DOLPHQWL DG DOWR LQGLFH)
SDQH ELDQFR LO ULVR OD \$LXJQR
OH SDWDWH É IDYRULVFRQR ODJJLR
JOLFHPLD 3HUWDQWR OH S\$SULOH
GLDEHWH SHU PDQWHQHUH V)
JOLFHPLD GRSR LO SDVWR G)HEEUDLR
FRQVXPR GL TXHVWL DOLPHC)HQQDLR
QRQ VROR TXHOOL ULFFKL L(*LFHPEUH L
OHJXPL IUXWWD YHUGXUD F'1RYHPEUH
PD DQFKH TXHOOL FRQ XQ E 2WWREUH
JOLFHPLFR FRPH OD SDVWD 6HWWHPEUH
OH SLDGLQH)
7XWWDYLD QRQ a PDL VWDW \$JRVWR
DQFKH SHU OH SHUVRQH LQ /XJOLR
ULVFKLR GL VYLOXSSDUH LO *LXJQR <H
SRVVDQR HVVHUH XWLOL VFH ODJJLR
WHQJDQR FRQWR GHOOÍLQGL)
6DSSL DPR GD SUHFHGHQWL ULFHUFKH FKH OD GLHWD P\$SULOH =H
GLDEHWH WLSR WXWWDYLD DQFKH VH HVVD VL FDUD)DUJR R S
DOLPHQWL D EDVVR LQGLFH JOLFHPLFR QRQ a QRWR VI)HEEUDLR VW
UXROR QHOOD SUHYHQJLRQKDGVRTXWODLOOHQDPSLWDDH *HQQDLR
ULFHUFDWODFHVHGHURFRDXWULFH GHOR VWXGLR 'LFHPEUH
+DQQR SDUWHFLSDWR DOOD ULFHUFD SHUVRQH LQ V)LR
GLDEHWH UHFOXWDWH QHL WUH FHQWUL XQLYHUVLWDL 1RYHPEUH H
DVVHJQDWD LQ PRGR FDVXDOH XQD GLHWD FRQ DOLPHC 2WWREUH)OL
JOLFHPLFR SHU XQ SHULRGR GL WUH PHVL 7XWWH OH 6HWWHPEUH NLI
LGHQWLFKH QHL GXH JUXSSL \$JRVWR
3HU IDFLOLWDUH OÍDGHVLRQH DOOD GLHWD L SURGRW /XJOLR VR
YHQLYDQR IRUQLWL JUDWXLWDPHQWH DL SDUWHFLSDQI *LXJQR L C
DELWXDOL &RPH DYHYDPR LSRWLJJDWR LO SURILOR JC ODJJLR UR
SUHOLHYL HIIHWWXDWL RJQL RUD SULPD H GRSR OD FR \$SULOH ? II
SRPHULJJLR DXPHQWDYD GRSR WUH PHVL GL GLHWD FF)DUJR DC
JOLFHPLFR PHQUH ULPDQHYD LQDOWHUDWR LQ FRORL)HEEUDLR D
EDVVR LQGLFH JOLFHPLFR /D GLIIHUHQJD SL» PDUFDWI)HQQDLR VL
ULVSRVWD JOLFHPLFD GRSR LO SUDQJR FKH DOOD ILQI *LFHPEUH R F
GLPHJJDWD QHO JUXSSR FRQ GLHWDKD ELDVWSSLOD J'1RYHPEUH
&RVWDELOH ULFHUFDWULFHUFRDXWULFH GHOR VWX 2WWREUH
4XHVWR ULVXOWDWR HUD FRQIHUPDWR GDOOD PLVXUDJ 6HWWHPEUH 3H
FRQGLJLRQL GL YLWD QRUPDOH FKH YHQLYD HIIHWWXDV)OC
VWXGLR PHGLDQWH XQ VHQVRUH LPSLDQWDWR VXO EUI \$JRVWR VW
LQQRWDWLYD DEELDPR SRWXWR GRFXPHQWDUH FKH IUH \$JRVWR RV
JOLFHPLD QHOOÍDUFGRHOOR RUH VRQR SUHVHQWL D /XJOLR LO

/263(\$.(56&251(5 (8

SRVVRQR HVVHUH QRWHYROPHQWH DWXWLWH FRQ OD	*LXJQR	LF
FKH L SLFFKL JOLFHPLFL GDQQHJJLDQR OD SDUHHW GH		UL
DUWHULRVFD#BRPH*DEUWHOH SLF9DUGULFRDXWRUH GH	0DJJLR	
VWXGLR	\$SULOH	
	0DUJR	íLF
, ULVXOWDWL RWWHQXWL SRVVRQR HVVHUH XWLOL DQF)HEEUDLR	UD
ELRPDUFDWRUL ULOHYDQWL SHU OR VWDWR GL VDOXW	*HQQDLR	GL
VDUDQQR XWLOLJJDWL SHU FRPSUHQQGHUH PHJOLR OH L	'LFHPEUH	WF
LQWHVWLQDOH H LO SURILOR GHL PHWDEROLWL SODVPL	1RYHPEUH	SH
LQWHUSHUVRQDOL QHOOD ULVSRVWD JOLFHPLFD DOOD	0DJJLR	
SUHFLVLRQFRQFOXVR OD GRWWRUHVVD *LDFFR	\$SULOH	
	0DUJR	
	'LFHPEUH	
	1RYHPEUH	

&RQGLYLGL



0L SLDFH

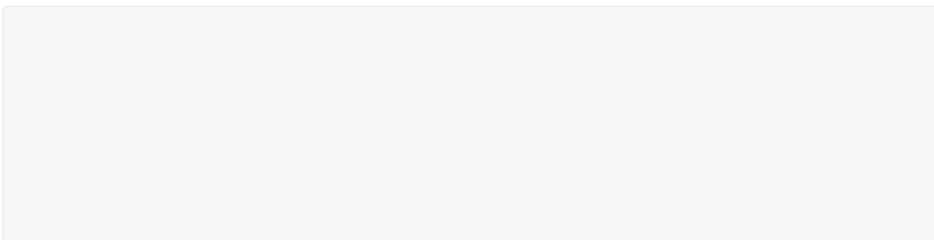
&DULFDPHQWR

8 5HDFW (8 OD WXWHOD GHOOD ULVRUVD LGULFD

/DVFLD XQ FRPPHQWR

,O WXR LQGLULJJR HPDLO QRQPSURSEDEEDWRUWRVRQR FRQWUDVVHJQDWL

&RPPHQWR



>FQLO?>;WFLK? ? =LKQFQRRII; OFISJFPQ;<LK;OPÁð @LDIF; FI DFLOK;I?



G

+RPH \$UHH \$GULDMZVFBOLPHQWL D EDVVR LQGLFH JOLFHPLFR SUHYHQJRQR LO GLDEHWH

\$UHH \$GU 1HZ

À MR<<IF=FQY À

%PMQIRXM E FEWWS M
TVIZIRKSRS MP HMEFI

/XJOLR

;OQF=LIF O?=?KQF

IFJ?KQF ; <;PPL FK>F=?
MO?S?KDLKL FI >F;<?Q?

9R VIGIRXI WXYHMS GSRHSXXS HEM VMGIVGEXSVM HIP~WXMXYXS
HIP~EPMQIRXE^MSRI HIP 'RV HM %ZIPPMRS I HIPP~SRMZJYVWXPRIH
2ETSPM HMQSWXVE GLI YRE HMIXE GSR YR FEWWFS MRHM@FKPMG;QI
GSRXVMFYMVI E TVIZIRMVI MP HMEFIXI HM XMP SFIFOE VMGIVGE à T
WY 2YXVMIRXW

K ;KFJ;O=; SF?Q;QL =E
K F;LILNRFE>F I;SLQL
OFPRIQ;QL >?IIL PQR>FL À ;@Q@MOKQK>L;QQ LP; OF=?O=;QLOF
>?IIB PQFQRQL >F P=F?KW? >?IIB;IFJ?KQ;WFLK? >?I LKPFDFL K;WFLK;I? >?II? OF=?O=E? >F
À KOÀ P;È FK =LII;<LO;WFLK? =LK ID KFQY >F;<?Q?Ú KRQOFWFLK?a=-EERL;FRJM OFIJD K>S?
?>?OF=L >F ;MLIF ? I? KFS?OPFQY >F RO>R? Á È ? E;IJ?OPQFS?WF?#Ú;Q@BRMMLL>F
E; S;IRQ;QL =LJ? FI MOL@FIL DIF=?JF=L DFLOK;IF?OL >F FK>FSP>RPFK PLSO;MM?PL J; P?K
@LPP? FK@IR?KW;QL >;II; >F?Q;Ú

Í I MOFK=FM;I? MO?PRMMLPQL >F NR?PQL PQR>FL a
O;MMO?P?KQ;QL >;II; =LKP;M?SLI?WW; =E?
;<<;PP;O? I; DIF=?JF; >LML FI M;PQL MRk ?PP?O?
RK; PQO;Q?DF; ?@@F=;=? M?O OF>ROO? IDFK=F>?KW; >?I
>F;<?Q?P FK@;QQFÚ ID;RJ?KQL >?II; DIF=?JF;
MLPQMO;K>F;I? O;MMO?P?KQ; IDFKFWFL >?I MOL=?PPL
=E? MLOQ; ;IIL PSFIRMML >?II; J;I;QQF;ÑÚ ;@?OJ; LP;I<; F;=LU OF=?O=;QOF=? K?IIB O?;

FLS?>e - ? S?K?O>e - I
;OF I; NRFKQ; ?>FWFLK



F MFq I?QQF



KRQOFWFLK? RJ;K; ? J?Q;<LIFPJL MO?PPL FI KOÀ P; >F S?IIFKL ? O?PMLK;P;=<E13>?L MQLD;
OF=?O=;Û >?IIB >OF;QF=L ?

O?=?>?KQF PQR>F E;KKL >FJLPQO;QL =E? ;IFJ?KQF ;> ;IQL FK>F=? DIF=?JF=L Á =LJ? FI M;K
<F;K=LÚ FI OFPLÚ I; MLI?KQ;Û I; MFWW; ? I? M;Q;Q? Á @;SLOFP=LKL IÐ;RJ?KQL >?II; DIF=?J
?OQ;KQLÚ I? M?OPLK? =LK >F;<?Q? M?O J;KQ?K?O? PLQQL =LKQOLIIL I; D K=L K F Ú > L M S F I M;
>?SLKL OF>ROO? FI =LKPRJL >F NR?PQF ;IFJ?KQFÚ MO?@?O?K>L KLK PLIL NR?P F OF = E F F
I?DRJFÚ @ORQQ;Û S?O>RO; ? =?O?;IF FKQ?DO;IFÚ J; ;K=E? NR?IIF =LK RK <;PPL FK>F=? DIF
=LJ? I; M;PQ;Û FI OFPL M;O<LFI?>Û I? MF;>FK?Û RQQ;SF;Û KLK a J;F PQ;QL ;MMRO;QL P? ;K
M?OPLK? FK PLSO;MM?PLÚ ; OFP=EFL >F PSFIRMM;O? FI >F;<?Q? QFML 'Ú M L P P ;K L ? P P O ? F
;IFJ?KQ;OF =E? Q?KD;KL =LKQL >?IIBFK>F=? DIF=?JF=LÚ ;P=? O;QFP L

Í ;MMF;JL >; MO?=?>?KQF OF=?O=E? =E? I; >F?Q; J?>FQ?OO;K?; OF>R=? FI OFP=EFL >F >F;<?
QRQQ;SF;Û ;K=E? P? ?PP; PF =;O;QQ?OFWW; M?O RK RPL MO?@?O?KWF;I? >F ;IFJ?KQF ; <;PI
DIF=?JF=LÚ KLK a KLQL P? I; P=?IQ; >F NR?PQF ;IFJ?KQF ;<<F; RK ORLIL K;QI? O M O S R K W F L K K
NR?PQ; J;I;QQF;ÑÚ ;@@?OJ; ;OFI?K; FQ;I?Û OF=?O=;QOF=? >?II; ?>?OF=L =L; E L M Q O P O ; J
PQR>FLÚ

;KKL M;OQ?FM;QL ;II; OF=?O=; '-• M?OPLK? FK PLSO;MM?PLÚ ; OFP=EFL >F PSFIRMM;O? FI
O?IRQ;Q? K?F QO? =?KQOF RKFS?OPFQ;OF FK Q;IF;Û S?WF; ? Û >?PP? S?KFS; ;PP?DK;
=;PR;I? RK; >F?Q; =LK ;IFJ?KQF ; <;P? >F =?O?;IF =LK >FS?OPL FK>F=? DIF=?JF=L M?O RK M'
QO? J?PFP QRQQ? I? ;IQO? =;O;QQ?OFPQF=E? >?II; >F?Q; ?O;KL F>?KQF=E? K?F R? DORMMI
@;=FIFQ;O? IÐ;>?PFLK? ;II; >F?Q;Û F MOL>LQQF ;> ;IQL L ; <;PPL FK>F=? DIF=?JF=L S?KFS;K
DO;QRFQ;J?KQ? ;F M;OQ?FM;KQF ;IIL PQR>FL ? ;F ILOL =LJJ?KP;IF ;<FQR;IFÚ LJ? ;S?S;JL
FMLQFWW;QLÚ FI MOL@FIL DIF=?JF=L DFLOK;IF?OLÚ JFPRO;QL J?>F;KQ? MO?IF?SF ?@@?QQ
MOFJ; ? >LML I; =LI;WFLK? ? FI MO;KWL @FKL ;I Q;O>L MLJ?OFDDFLÚ ;RJ?KQ;S; >LML QO? J
>F?Q; =LK DIF ;IFJ?KQF ;> ;IQL FK>F=? DIF=?JF=L J?KQO? OFJ;K?S; FK;IQ?O;QL FK =LILOL =E
PQ;QF ;PP?DK;QF ;II; >F?Q; ; <;PPL FK>F=? DIF=?JF=LÚ ; >F@@@?O?KW; MFq J;O=;Q; QO; F >
O?DFPQO;S; M?O I; OFPMLPQ; DIF=?JF=; >LML FI MO;KWLÚ =E? ;II; @FK? >?IIB?PM?OFJ?KQL
MO?PPL=Eb >FJ?WW;Q; K?I DORMML =LK >F?Q; ; <;PPL FK>F=? DIF=?JF=LÑÚ OF@?OFP=? FR
LPQ;<FI?Û OF=?O=;QOF=? >?IIB KFS?OPFQY ?>?OF=L ? =L;RQOF=? >?IIL PQR>FLÚ

R?PQL OFPRIQ;QL ?O; =LK@?OJ;QL >;II; JFPRO;WFLK? FK =LKQFKRL >?II; DIF=?JF; FK =LK>F
SFQ; KLOJ;I? =E? S?KFS; ?@@@?QQR;Q; M?O QO? DFLOKF ;IIBFKFWFL ? ;II; @FK? >?IIL PQR>F
P?KPLO? FJMF;KQ;QL PRI <O;==FLÚ Í O;WF? ; NR?PQ; J?QL>LILDF; FKKLS;QFS; ;<<F;JL MLQR
>L=RJ?KQ;O? =E? @O?NR?KQF ? J;O=;Q? LP=FII;WFLKF >?II; DIF=?JF; K?IIB;O=L >?II? ' " LO?
MO?P?KQF ;K=E? FK =EF KLK E; FI >F;<?Q? ? =E? ?PP? MLPPLKL ?PP?O? KLQ?SLIJ?KQ? ;QQR
I; >F?Q; ; <;PPL FK>F=? DIF=?JF=LÚ # KLQL =E? F MF==EF DIF=?JF=F >;KK?DDF;KL I; M;O?Q?
;OQ?OF? ? @;SLOFP=LKL IL PSFIRMML >F ;OQ?OFLP=I?OLPFÑ =LJJ?KQ; ;<OF?I? F==;O>F >?
>?OF=L Ú =L;RQLO? >?IIL PQR>FLÚ

Í OFPRIQ;QF LQQ?KRQF MLPPLKL ?PP?O? RQFIF ;K=E? M?O S;IRQ;O? IÐFJM;QQL >?II; >F?Q;
<FLJ;O=;QLOF OFI?S;KQF M?O IL PQ;QL >F P;IRQ?Û KRJ?OLPF >;QF O;==LIQF FK NR?PQL PC
RQFIFWW;QF M?O =LJMO?K>?O? J?DIFL I? FKQ?O;WFLKF QO; I; >F?Q;Û I; @ILO; <;QQ?OF=; FI
MOL@FIL >?F J?Q;<LIFQF MI;PJ;QF=FÚ ;I @FK? >F FKQ?OMO?Q;O? I? >F@@@?O?KW? FKQ?OM?
OFPMLPQ; DIF=?JF=; ;II; >F?Q;Û K?II; MOLPM?QQFS; >F RK; KRQOFWFLK? >F MO?FPFLK?ÑÚ
F;==LÚ

o]u vš] ••}]v] Po] u] } %o Ā vP}v}]o

ZKD p]• p r hv] š }v ••}]v] Po] u] } %o}šĀ %oĀ Ā
] š] šY%•šX]o Ā]•μoš š} oo} •šμ]} D ' /r Ā U %o μ o] š}
EμšĀ] vš•U }v }šš} Ā] Ā š}Ā] oo- /•š]šμš}]•]vì oo- o]u
}v•]Po]} v]}v o oo Ā] Ā Z] Ā oo]v} ~ vĀr/• •]v }oo }C
o-hv]š] š U vμšĀ]ì}}v u š }o]•u} oo-hv]Ā Ā•]š & Ā] } //
o hv]Ā Ā•]š] WμĀ μ ~h^ • Z ou Ā• ~^Ā]• X /o PĀμ%o%o
Ā oμš š} }u]o %oĀ}([o] Po] u] } P]}Āv o] Ā}]]v]Ā] μ]]v •}
• vî] š (}••]v(oμ vî ž/o %oĀ]v]}%oXo %oĀ•μ%o%o}•š}] <μ•š}
•šμ]} Ā %o%oĀ• vš š} oo }v• %o Ā}o ì] Z •• Ā o Po] u]
%o Ā Ā] μĀĀ o-]v] vî o] š V]v(šš]U o- μu vš} oo Po] u]
%o}Āš oo} •Ā]oμ%o%o} oo u o šš] 2U ((Āu Z}• o '] } U Ā] (Ā
%oĀ ••}]o vĀr/•] Ā oo]v} Ā•%o}WĀĀ]o vš]Ā]P] žš]v} Ā]•ĀĀ
oš}]v] Po] u] } r }u]o %o v] v }U]o Ā]•}U o %o}o vš U
Po] u] X W Āš vš}U o %o Ā•}v }v] š %o Ā u vš v Ā •}šš}]\n
}v•μu}] <μ•š] o]u vš]U %oĀ (Ā v } v}v •}o} <μ oo] Ā] Z]v (] Ā
u v Z <μ oo] }v μv ••}]v] Po] u] }U }u o %o •š U]o Ā]•}
%o%oμĀ š} • v Z %o Ā o %o Ā•}v]v •}ĀĀ %o%o •}U Ā]• Z]}]•/
o]u vš Ā] Z š vP v} }vš} 2o-%p%o] u]Po] %oĀ}X vš] Ā] Ā Z Z (Ā
]o Ā]• Z]}]] š š] %o} ìv šμšš Ā] U v Z • ••] Ā šš Ā]ì
Po] u] }U v}v v}š} • o • oš] <μ•š] o]u vš]] μv Āμ}o}
D Ā]o v s]š o U Ā] Ā šĀ] oo & ,Ā]v} } %d Āš} μ%Ā] } oooĀ]š
•}ĀĀ %o%o •}U Ā]• Z]}]•Ā]oμ%o%o Ā]o] š U Ā oμš š v] šĀ
•• P v š]v u} } •μ o μv] š }v o]u vš] •] Ā o] }v]Ā
u •]V šμšš o ošĀ Ā šš Ā]•š] Z oo] š Ā v}] vš] Z v
%oĀ} }šš] oš} } ••}]v] Po] u] } Ā v]Ā v} (}Āv]š] PĀ
}uu v• o]]šμ o]X }u Ā Ā u}]%o}š]ì]š}U]o %oĀ}([o} Po] u] } P]
}Pv] }Ā %oĀ]u }%o} o }o ì}}v]o %oĀ vî} (]v} o š Ā } %o}u
o]u vš] oš}]v] Po] u] } u všĀ Ā]u v Ā]v oš Ā š}]v }o]
]v] Po] u] }X >]((Ā vî %o]¶ u Ā š šĀ] μ PĀμ%o%o] •] Ā
oo (]v oo- •%o Ā]u vš} Ā %oĀ ••} Z]u ì]š v o PĀμ%o%o} }v
}•š]o U Ā] Ā šĀ] oo-hv]Ā Ā•]š & YμĀ•]š} Ā]•μøšμšĀ]Ā
u]•μĀ ì}}v]v }vš]vμ} oo Po] u]]v }v]ì}}v]] Ā]š v}Āu o Z
(]v oo} •šμ]} u] vš μv •v}Ā]u%o] vš š} •μo Ā]}X 2'Ā ì]
} μu vš Ā Z (Ā <μ vš] u Ā š }•]oo ì}}v] oo Po] u] v oo-
Z]o] š Z •• %o}••}v} •• Ā v}š Ā}ou vš ššμš]š }v o] š
Po] u]] vv PP] v} o %o Ā š oo Āš Ā] (Ā}Ā]• }v} o} •Ā]oμ
oo & Ā] } //U } μšžĀĀ]•qo)š •š]μ]šš vμš] %o}••}v} •• Ā μš]o] v
•μ ošĀ]]}u Ā šĀ] Ā]o Ā vš] %o Ā o} •š š}]• oμš X / vμ Ā
}u%oĀ v Ā u Po]} o]vš Ā ì}}v] šĀ o] š U o (o}Ā šš Ā]]\n
]]vš Ā %oĀ š Ā o]((Ā vî]vš Ā %o Ā•}v o] v oo Ā]•%o}•š Po]
%oĀ]•)}v 2U }v oμ '] }X ~]••

(',=,21, 0HGLWHUUDXURSD 8HXRYD(XURSDPHULFD /DWUDDVLOJOLVK 3RGFDVSM6\$FKHFN 6RFLDO

&DPSDQLD

)DL OD ULFHU \$%%21\$7,

*DOOHULD)RW R9JLJCH BFD

6FHJOL OD 5HJLRQH

&521\$&\$-32/,7,&\$(&2120,\$ 63257 63(77&2/2:\$16\$ 9,\$**,\$57:7(55\$ *8672 6\$1,7-63(&,\$/,\$/ \$66(0%/(\$,1)250\$1\$0%,(17(7(55,725,

\$16\$ LWDPSDQBDQLWj &DPSDQLD

'LHWD D EDVVR LQGLFH JOLFHPFR SXz SUHYHQLUH GLDEHWH WLSR

'LHWD D EDVVR LQGLFH JOLFHPFR SX SUHYHQLUH GLDEHWH WLSR

6WXGLR FRQGRWWR GD &QU ,VD \$YHOOLQR FRQ OD)HGHULFR , , GL 1DSROL

5HGDJLRQH \$16\$

1\$32/,
OXJOLR

1(:6

6XJJHULVFI

)DFHERRN

7ZLWWHU

\$OWUL

6WDPSD

6FULYL DOOD



< \$16\$ &/, &&\$ 3(5
,1*5\$1',5(

\$16\$ 1\$32/, /8* 8QD GLHWD FRQ EDVVR LQGLFH JOLFHPFR
SRWUHEEH SUHYHQLUH LO GLDEHWH GL WLSR 4XHVWR LO ULVXOWDWR G
0(*, &DUE SXEOLFDFWR VX 1XWULHQWV FRQGRWWR GD ULFHUFDFWRUL
GHOO ,VWLWXWR GL VFLHQJH GHOO DOLPHQ 9,*(2 \$16\$ JOLR QD]L
ULFHUFKH GL \$YHOOLQR &QU ,VD LQ FROODERUULR FRQ O 8QJWi GLD
QXWULJLRQH H PHWDEROLVPR GHOO 8QLYHU
8QLYHUVLWj GL 3XUGXH 86\$ H &KDOPHUV 6
KD YDOXWDFWR FRPH LO SURILOR JOLFHPFR
VRYUDSSHVR PD VHQJD GLDEHWH IRVVH LQIC
,O SULQFLSDOH SUHVXSSRVWR GL TXHVWR
FRQVDSHYROH]JD FKH DEEDVVDUH OD JOLF
XQD VWUDWHJLD HIILDFDH SHU ULGXUHU O L
O DXPHQWR GHOO JOLFHPFR SRVWSUDQGLD
SURFHVVR FKH SRUWD DOOR VYLOXSSR GH
*LDFFR ULFHUFDFWULFH QHOO \$UHD GL QXW
SUHVVR LO &QU ,VD GL \$YHOOLQR H UHVSRO
3UHFGHQWL VWXGL KDQQR GLPRVWUDWR
JOLFHPFR FRPH LO SDQH ELDQFR LO ULV
IDYRULVFRQR O DXPHQWR GHOO JOLFHPFR
SHU PDQWHQHUH VRWWR FRQWUROOR OD JO
FRQVXPR GL TXHVWL DOLPHQWL SUHIHUHQ
FRPH OHJXPL IUXWWD YHUGXUD H FHUHDOL
EDVVR LQGLFH JOLFHPFR FRPH OD SDVWD
7XWWDYLD QRQ q PDL VWDWR DSSXUDWR V
VRYUDSSHVR D ULVFKLR GL VYLOXSSDUH LO
XWLOL VFHOWD DOLPHQWDUL FKH WHQJDQR
6DSSLDPR GD SUHFGHQWL ULFHUFKH FKH
LO ULVFKLR GL GLDEHWH WLSR WXWWDYLD
XVR SUHIHUHQ]LDOH GL DOLPHQWL D EDVVR
VFHOWD GL TXHVWL DOLPHQWL DEELD XQ UX
PDODWLD DIIHUPD ODULOHQD 9LWDOH UL
FRDXWULFH GHOO VWXGLR
+DQQR SDUWHFLSDWR DOOD ULFHUFDFWR SH

9,*(2 \$16\$

/8*,2
\$8675\$/\$, \$ 925\$*,1('232 /() 257, 3,2'
)\$ &52//5(81\$ &\$6\$

GL VYLOXSSDUH LO GLDEHWH UHFOXWDWH C
6YHJLD H 86\$ \$G HVVH YHQLYD DVVHJQDWD
FRQ DOLPHQWL D EDVH GL FHUHDOL FRQ GL
SHULRGR GL WUH PHVL WXWWH OH DOWUH F
LGHQWLFKH QHL GXH JUXSSL 3HU IDFLOLWD
DG DOWR R D EDVVR LQGLFH JOLFHPFR YHQ
SDUWHFLSDQWL DOOR VWXGLR H DL ORUR FR
LSRWLJJDWR LO SURILOR JOLFHPFR JLRUQD
HIIHWWXDWL RJQL RUD SULPD H GRSR OD FR
SRPHULJJLR DXPHQWDYD GRSR WUH PHVL G
LQGLFH JOLFHPFR PHQWUH ULPDQHYD LQDQ
DVVHJQDWL DOOD GLHWD D EDVVR LQGLFH J
PDUFDWD WUD L GXH JUXSSL VL UHJLVWUDY
SUDQJR FKH DOOD ILQH GHOO HVSHULPHQW
JUXSSR FRQ GLHWD D EDVVR LQGLFH JOLFHP
&RVWDELOH ULFHUFDWULFH GHOO 8QLYHUV
VWXGLR

4XHVWR ULVXOWDWR HUD FRQIHUPDWR GD
JOLFHPD LQ FRQGLJLRQL GL YLWD QRUPDOR
JLRUQL DOO LQLJLR H DOOD ILQH GHOO VV
VXO EUDFFLR *UDJLH D TXHVWD PHWRGROR
GRFXPHQWUDH FKH IUHTXHQLW H PDUFDWH
GHOO DUFR GHOO RUH VRQR SUHVHQLW D
HVVH SRVVRQR HVVHUH QRWHYRPHQWH DW
JOLFHPFR È QRWR FKH L SLFFKL JOLFHPFR
DUWHULH H IDYRULVFRQR OR VYLOXSSR GL
5LFFDUGL GHOO)HGHLFR ,, FRDXWRUH GHOO
, ULVXOWDWL RWWHQXWL SRVVRQR HVVHUH
GHOO GLHWD VX DOWUL ELRPDUFDWRUL ULOH
QXPHURVL GDWL UDFFRWL LQ TXHVWR VWXGLR
FRPSUHQGHUH PHJLR OH LQWHUDJLRQL WUD
LQWHVWLQDOH H LO SURILOR GHL PHWDEROLWL
GLIIHUHQJH LQWHUHVVRQDOL QHOOD ULVSRVW
SURVSHWWLYD GL XQD QXWULJLRQH GL SUHF
\$16\$

5,352'8=,21(5,6(59\$7\$ (&RS\ULJKW \$16\$

&21',9,'

OXJOLR
,WD \$OWDYLOOD 0HI IDFFLD :
OXJOLR
3DQDPD SURWHVWH FRQWUR F
VFRQWUL PDQLHVWDQWL SROL
WXWWL L

8/7,0\$ 25\$

- HQQH VIUHJLDWD D 1DSROL ILGDQJDWR
- \$ *LIIRQL RVSLWL FL VDUI 5LFKDUG ODGGHQ
-)JLHQGV IRU 3LQR O \$UHQI RPDJJLD 3LQR 'DQLHOH
- 1DSROL SURWHVWD WDVVLV 3OHELVLWR
- %LPED GL DQQL VIUHJLDWE XQ DUPD GD WDJOLR D 1DSR
- 'M PRUWR GRSR EDUEHFXH \$ VDOPD

3/4XWWH OH

5HJLRQH &DPSDQLD YD

/D PRVWUD GDO FRQ
ODUDGRQD GDO * D
ULILXWL DO ERRP W)
/LEUR IRWRJUDILFR FRQ O \$16\$
VHFROR GDOOD QDVFLWD GHOO

,31) 46-13 4-8%2'30896%)'3231-8% 73'-)8%7'-)2>% 8)'2309+-%

•

(;3\$57,%86,7

+20(12, '(2172/2*,\$ 35,9\$&<

5 :

(',725,\$/(&8/785\$ 7(55,725,2 &521\$&\$ 32/,7,&\$ 63257 5(&(16,21, 58%5,&+(

+RPH 7HUULWFOLEPHOWL D EDVVR LQGLFH JOLFHPLFR SUHYHQJRQR LO GLDEHWH

7(55,725, &\$03\$1,3 \$9(/,12 &521\$&\$ &8/785\$ 1\$32/,

6(/(=,21\$ /,1*8

\$OLPHQWL D EDVVR LQGLFH JOLFHPLFR SUHYHQJRQR LO GLDEHWH

'L5HGDJLRQH/XJOLR

)DFHER

5

7ZLWW

)

3LQWHU

#

/LQNHG

4

7XPEO

/R GLPRVWUD XQ UHFHQWH VWXGLR GHOOÍ8QLYHUVLWç H GF
\$YHOOLQR)HGHULFR ,, GL 1DSROL SXEOLFDWR VX 1XWULH
5LFHYLDPR H SXEOLFKLDPR

8QD GLHWD FRQ EDVVR LQGLFH JOLFHPLFR SRWUHEEH SUHYHQLUH LO GLDEHWH GL WLSR

4XHVWR LO ULVXOWDWR GHOR VWXGLR 0('*, &DUE SXEOLFDWR VX 1XWULHQWV FRQGRWWF
ULFHUFDWRUL GHOO¶,VWLWXWR GL VFLHQJH GHOO¶DOLPHQWDJLRQH GHO &RQVLJOLR QD]LRQDO
\$YHOOLQR &15 ± ,6\$ LQ FROODERUD]LRQH FRQ O¶8QLWj GLDEHWH QXWUL]LRQH H PHWDEROLV
GHOO¶8QLYHUVLWj)HGHULFR ,, GL 1DSROL H OH 8QLYHUVLWj GL 3XUGXH 86\$ H &KDOPHUV 6YH

,O JUJSSR GL ULFHUFD KD YDOXWDWR FRPH LO SURILOR JOLFHPLFR JLRUQDOLHUR GL LQGLYLGX
VRYUDSSHVR PD VHQJD GLDEHWH IRVVH LQIOXHQJDWR GDOOD GLHWD

\$IIHUPD 5RVDOED *LDFFR ULFHUFDWULFH QHOO¶\$UHD GL QXWUL]LRQH XPDQD H PHWDEROLVPR
&15 ± ,6\$ GL \$YHOOLQR H UHVSRQVDELOH GHO SURJHWWR GL ULFHUFD

(;3\$57,%86,7

,O SULQFLSDOH SUHVXSSRVWR GL TXHVWR VWXGLR q UDSSUHVHQWDWR GDOOD F
DEEDVVDUH OD JOLFHPLD GRSR LO SDVWR SXz HVVHUH XQD VWUDWHJLD HILFD
O¶LQFLGHQJD GHO GLDEHWH LQIDWWL O¶DXPHQWR GHOOD JOLFHPLD SRVWSUDQ
GHO SURFHVV FKH SRUWD DOOR VYLOXSSR GHOOD PDODWWLD

3UHFHGHQWL VWXGL KDQQR GLPRVWUDWR FKH DOLPHQWL DG DOWR LQGLFH JOLFHPLFR ± FRPH
ELDQFR LO ULVR OD SROHQWD OD SLJJD H OH SDWDWH ± IDYFULVFRQR O¶DXPHQWR GHOOD JO
3HUWDQWR OH SHUVRQH FRQ GLDEHWH SHU PDQWHQHUH VRWR FRQWUROOR OD JOLFHPLD G
GHYRQR ULGXUWH LO FRQVXPR GL TXHVWL DOLPHQWL SUHIHUHQGR QRQ VROR TXHOOL ULFFKL
OHJXPL IUXWWD YHUGXUD H FHUHDOL LQWHJUDOL PD DQFKH TXHOOL FRQ XQ EDVVR LQGLFH J
FRPH OD SDVWD LO ULVR SDUERLOHG OH SLDGLQH

7XWWDYLD QRQ q PDL VWDWR DSSXUDWR VH DQFKH SHU OH SHUVRQH LQ VRYUDSSHVR D ULV
VYLOXSSDUH LO GLDEHWH WLSR SRVVDQR HVVHUH XWLOL VFHOWH DOLPHQWDUL FKH WHQJD
GHOO¶LQGLFH JOLFHPLFR

\$IIHUPD ODULOHQD 9LWDOH ULFHUFDWULFH GHOOD)HGHULFR ,, H FRDXWULFH GHOR VWXGLR

6DSSLDPD GD SUHFHGHQWL ULFHUFKH FKH OD GLHWD P /H XOWLPH GL QDS ULGXFH LO
WXWWDYLD DQFKH VH HVVD VL FDUDWHULJJD SHU XQ XVR SUHIHUHQJLDOH GL E
JOLFHPLFR QRQ q QRWR VH OD VFHOWD GL TXHVWL DOLPHQWL DEELD XQ UXROR
TXHVWD PDODWWLD

+DQQR SDUWHFLSDWR DOOD ULFHUFD SHUVRQH LQ VRYUDSSHVR D ULVFKLR GL VYLOXSSDUH
UHFOXWDWH QHL WUH FHQWUL XQLYHUVLWDUL LQ ,WDOLD 6YHJLD H 86\$ \$G HVVH YHQLYD DVVI
PRGR FDVXDOH XQD GLHWD FRQ DOLPHQWL D EDVH GL FHUHDOL FRQ GLYHUVR LQGLFH JOLFHPL
SHULRGR GL WUH PHVL WXWWH OH DOWUH FDUDWHULVWLFKH GHOOD GLHWD HUDQR VGHQWL

5LIHULVFH *LXVHSSLQD &RVWDELOH ULFHUFDWULFH GHOO¶LQGLFH JOLFHPLFR WUH FRDXWUL
VWXGLR

• '\$QG\ LV EDFN' XOWLPH VHWW
• &LUFXPYHVXYLDQD QXRYL GLVI
XWHQWL &KLXGH OD WUDWWD 1
3RJLRPDULQR
• XRYL H/XFD 38Q TXHVWL
• 83319\$ 1.39.1 & XDOOR OD
SDUWH GHOOHVSHULHQD

3HU IDFLOLWDUH O¶DGHVLRQH DOOD GLHWD L SURGRWL DG DOWR R D EDVVR L
IRUQLWL JUDWXLWDPHQWH DL SDUWHFLSDQWL DOOR VWXGLR H DL ORR FRPH
DYHYDPR LSRWLJJDWR LO SURILOR JOLFHPLFR JLRUQDOLHUR PLVXUDWR PHGLD
RJQL RUD SULPD H GRSR OD FRODJLRQH H LO SUDQJR ILQR DO WDUGR SRPHULJL
WUH PHVL GL GLHWD FRQ JOL DOLPHQWL DG DOWR LQGLFH JOLFHPLFR PHQWUH
FRORUR FKH HUDQR VWDWL DVVHJQDWL DOOD GLHWD D EDVVR LQGLFH JOLF

/D GLIIHUHQJD SL• PDUFDWD WUD L GXH JUXSSL VL UHJ VV
SUDQJR FKH DOOD ILQH GHOO¶HVSHULPHQWR HUD SUH JU
EDVVR LQGLFH JOLFHPLFR

4XHVWR ULVXOWDWR HUD FRQIHUPDWR GDOOD PLVXUDJLRQH LQ LC
YLWD QRUPDOH FKH YHQLYD HIIHWWXDWD SHU WUH JLRUQL DOO¶
XQ VHQVRUH LPSLDQWDWR VXO EUDFFLR VV

&RPPHQWD *DEULHOH 5LFFDUGL GHOOD)HGHULFR ,, FRDXWRUH (

*UDJLH D TXHVWD PHWRGRORJLD LQQRWDWLYD DEELDP H
PDUFDWH RVFLOODJLRQL GHOOD JOLFHPLD QHOODUFR VV
LO GLDEHWH H FKH HVVH SRVVRQR HVVHUH QRWHYROP D
JOLFHPLFR

Ê QRWR FKH L SLFFKL JOLFHPLFL GDQQHJJLDQR OD SDI I
GL DUWHULRVFOHURVL

&RQFOXGH *LDFFR

(;3\$57,%86,7

, ULVXOWDWL RWWHQXWL SRVVRQR HVVHUH XWLLOL DG
ELRPDUFDWRUL ULOHYDQWL SHU OR VWDWR GL VDOX)
VDUDQQR XWLLOLJJDWL SHU FRPSUHQQGHUH PHJOLR OH
LQWHVWLQDOH H LO SURILOR GHU PHWDEROLWL SOD
LQWHUHVVRQDOL QHOOD ULVSRVWD JOLFHPLFD DOO
SUHFLVLRQH

PS
IF
LH
WI
IW

\$XW SUH D]LRQH

ODLO ORUH 3RVVV

\$UWLFRRR SUHFHGHQWH

&DOHQJDQR), ORQQD D SUHWHVLRQ & RQHUHQJD VXOOR VWDWR JOREDOH
SURJHWWR WUDQVL]LRQH HFRORJLFD

\$UWLFRRR VXFFHVVLJR

GHL GLULWWL XPDQL

*\$==(77\$', \$9(//,12 ,7

! *\$==(77\$ ', 0,/\$12\$==(77\$ ', 520\$\$==(77\$ ', 1\$327\$==(77\$ ', 6\$/(5121(7,& 6\$325, &21',9,\$('\$=,21(38%%/,&,7\$| ((7725\$/(
&217\$77,

+20(32/,7,&\$ (&2120,\$,6758=,21(\$0%,(17(%(1(9(172 58%5,&+(

+RPH ,VWUX]LR@QLYHUVLW¢ FKSIOEFDHP¢WID D EDVVR LQGLFH JOLFHPLFR SUHYHQJRQR LO GLDEHWH /R GLPRVWU

.VWUX] / 8QLYHUVLW¢

%PMQIRXM E FEWWS MRHMG I KPI
TVIZIRKSRS MP HMEFIXI OS HMQ
YR VIGIRXI WXYHMS HIP P~9RMZI\
HIP '26 HM %ZIPPMRS *IHIVMGS -
2ETSPM TYFFPMGEXS WY 2YXVMI

6321625

*\$==(77\$', \$9(//, 12 , 7

'L3LHWUR 3L]]ROOD

>

*OXFRPHWHU ZLWK UHVXOW RI VXJDU OHYHO DQG IUHVK SUHSDUHG VXPPHU VDODG RI ZDWHUPHORQ DQG IHWD FKH
'LDEHWHV KHDOWK\ OLIHVW\OHV DQG QXWULWLRQ FRQFHSW

*\$ = (77\$, \$9(//, 12 , 7

8QD GLHWD FRQ EDVVR LQGLFH JOLFHPFLR SRWUHEEH SUHYHQLUH LO GLDEHWH GL WLSR
ULVXOWDWR GHOR VWXGLR 0('*, &WUEHSSRGLWVWRV DULFHUFDWRUL
GHOO, VWLWXWR GL VFLHQJH GHOO, DOLPHQWD]LRQH GHO &RQVLJOLR QD]LRQDOH GHOOH U
\$YHOOLQR &QU ,VD LQ FROODERUD]LRQH FRQ O, 8QLWj GLDEHWH QXWUL]LRQH H PHWDER
GHOO, 8QLYHUVLWj) HGHULFR ,, GL 1DSROL H OH 8QLYHUVLWj GL 3XUGXH 86\$ H &KDOPHUV
6YH]LD ,O JUXSSR GL ULFHUFD KD YDOXWDR FRPH LO SURILOR JOLFHPFLR JLRUQDOLHU
LQGLYLGXL LQ VRYUDSSHVR PD VHQJD GLDEHWH IRVVH LQIOXHQJDWR GDOOD GLHWD

3,O SULQFLSDOH SUHVXSSRVWR GL TXHVWR VWXGLR q UDSSUHVHQWDR GDOOD FRQVDSH'
DEEDVVDUH OD JOLFHPD GRSR LO SDVWR SXz HVVHUH XQD VWUDWHJLD HIILDFH SHU ULC
O, LQFLGHQJD GHO GLDEHWH LQIDWWL O, DXPQR GHOD JOLFHPD SRVWSUDQGLDOH UD
O, LQL]LR GHO SURFHVVR FKH SRUWD DOOR V, RDXSR GHO, PDODWWLD' DIIHUPD
ULFHUFDWULFH QHO, \$UHD GL QXWUL]LRQH XPDQD H PHWDEROLVPR SUHVVR LO &QU ,VD GL
\$YHOOLQR H UHVSQVDELOH GHOD SURJHWWR GL ULFHUF

3UHFHGHQWL VWXGL KDQQR GLPRVWUDWR FKH DOLPHQWL DG DWR LQGLFH JOLFHPFLR ± F
ELDQFR LO ULVR OD SROHQWD OD SL]D H OH SDWDWH ± IDYRULVFRQR O, DXPQR GHOD
3HUWDQWR OH SHUVRQH FRQ GLDEHWH SHU PDQWHQHVRVWR FRQWUROOR OD JOLFHP
SDVWR GHYRQR ULGXUWH LO FRQVXPR GL TXHVWL DOLPHQWL SUHIHUQR QRQ VROR TXH
ILEUH FRPH OHXPL IUXWWD YHUGXUD H FHUHDOL LQWHJUDOL PD DQFKH TXHOOL FRQ XC
LQGLFH JOLFHPFLR FRPH OD SDVWD LO ULVR SDUERLOHG OH SLDGLQH 7XWWDYLD QRQ q
DSSXUDWR VH DQFKH SHU OH SHUVRQH LQ VRYUDSSHVR D ULVFKLR GL VYLOXSSDUH LO GL
SRVVDQR HVVHUH XWLOL VFHOWH DOLPHQWDUL FKH WHQJDQR FRQWR GHOO, LQGLFH JOL

3DSSLDPR GD SUHFHGHQWL ULFHUFKH FKH OD GLHWD PHGLWHUUDQHD ULGXFH LO ULVFKLR
WLSR WXWWDYLD DQFKH VH HVVD VL FDUDWHUL]D SHU XQ XVR SUHIHUQ]LDOH GL DC
EDVVR LQGLFH JOLFHPFLR QRQ q QRWR VH OD VFHOWD GL TXHVWL DOLPHQWL DEELD XQ U
SUHYHQ]LRQH GL TXHVWD P, DVOM, 9DMD, DULFHUFDWULFH GHOD
)HGHULFR ,, H FRDXWULFH GHOR VWXGLR

+DQQR SDUWHFLSDWR DOOD ULFHUFD SHUVRQH LQ VRYUDSSHVR D ULVFKLR GL VYLOXS
GLDEHWH UHFOXWDR QHL WUH FHQWUL XQLYHUVLWDUL LQ ,WDOLD 6YH]LD H 86\$ \$G HVV
DVVHJQDWD LQ PRGR FDVXDOH XQD GLHWD FRQ DOLPHQWL D EDVH GL FHUHDOL FRQ GLYHI
JOLFHPFLR SHU XQ SHULRGR GL WUH PHVL WXWWH OH DOWUH FDUDWHULVWLFKH GHOD
LGHQWLFKH QHL GXH JUXSSL 3HU IDFLOLWDUH O, DGHVLRQH DOOD GLHWD L SURGRWWL D
LQGLFH JOLFHPFLR YHQLYDQR IRUQLWL JUDWXLWDPHQWH DL SDUWHFLSDQWL DOOR VWXGL
FRPPHQVDOL DELWXDOL &RPH DYHYDPR LSRWL]DWR LO SURILOR JOLFHPFLR JLRUQDOLH
PLVXUDWR PHGLDQWH SUHOLHYL HIIHWWXDWL RJQL RUD SULPD H GRSR OD FROD]LRQH H L
ILQR DO WDUGR SRPHULJLR DXPQWDYD GRSR WUH PHVL GL GLHWD FRQ JOL DOLPHQWL I
LQGLFH JOLFHPFLR PHQWUH ULPDQHYD LQDOWHUDWR LQ FRORUR FKH HUDQR VDWL DVVH
GLHWD D EDVVR LQGLFH JOLFHPFLR /D GLIIHUQJD SL• PDUFDWD WUD L GXH JUXSSL VL UH
SHU OD ULVSRVWD JOLFHPFD GRSR LO SUDQ]R FKH DOOD ILQH GHOO, HVSHULPHQR HUD
GLPH]DWD QHO JUXSSR FRQ GLHWD D EDVVR* LQGLS, LQGLFHUFDWULFH' ULIHULVFH
&RVWDELOH ULFHUFDWULFH GHOO, 8QLYHUVLWj) HGHULFR, VWXGLR

4XHVWR ULVXOWDWR HUD FRQIHUPDWR GDOOD PLVXUD]LRQH LQ FRQLQXR GHOD JOLFHP

*\$==(77\$', \$9(//, 12 , 7

FRQGLJLRQL GL YLWD QRUPDOH FKH YHQLYD HIIHWXWDWD SHU WUH JLRUQL DOO¶LQLJLR H I
VWXGLR PHGLDQWH XQ VHQVRUH LPSLDQWDWR VXO EUDFFLR ³*UDJLH D TXHVWD PHWRGR
LQQRYDWLYD DEELDR SRWXWR GRFXPHQWUDH FKH IUHTXHQLW H PDUFDWH RVFLOODJLRQ
JOLFHPD QHOOD¶DUFR GHOOH RUH VRQR SUHVHQWL DQFKH LQ FKL QRQ KD LO GLDEHWH
SRVVRQR HVVHUH QRWHYRPHQWH DWWXWLWH FRQ OD GLHWD D EDVVR LQGLFH JOLFHP
FKH L SLFFKL JOLFHPFL GDQQHJJLDQR OD SDUHW GHOOH DUWHULH H IDYRULVFRQR OR V
DUWHULRVFOHURV*DEERROHGWDFDUGL GHOODFRDQWULFR GHOR
VWXGLR

³, ULVXOWDWL RWWHQXWL SRVVRQR HVVHUH XWLOL DQFKH SHU YDOXWUDH O¶LPSDWWR GH
ELRPDUFDWRUL ULOHYDQWL SHU OR VWDWR GL VDOXWH , QXPURVL GDWL UDFFRWL LQ
VDUDQQR XWLOLJJDWL SHU FRPSUHQQHWH PHJOLR OH LQWHUDJLRQL WUD OD GLHWD OD IO
LQWHVWLQDOH H LO SURILOR GHL PHWDEROLWL SODVPDWLFL DO ILQH GL LQWHUSUHWDUH (L
LQWHUSHUVRQDOL QHOOD ULVSRVWD JOLFHPFLD DOOD GLHWD QHOOD SURVSHWWLYD GL X
SUHFLVLRQH' FRQFOXGH *LDFFR

'SRHMZMHH

) :KDWS\$SS 7ZHH 6WDP\$D 6KD " 7HOHJUD (PDLO

1M TMEGI

&DULFDPHQWR

7\$*6 DOLPHQWDJLRQOOLQR CWFQDOLMWHWHGLFLQGHZV DYHQRQLJLH DYHOOLQR
ULFHLFDOXWMLYHUVM&YHUVLW GHJOL VWXGL GL VDOHUQR

%VXMGSPS TVIGIHIRXI

0~9RMZIVWMXP HM 7EPIVRS I MP 1MRMWXIVS HIPPE
(MJIWE MRWMIQI TIV JSVQEVI M PIEHIV HIPPE
XVEWJSVQE^MSRI HMKMXEPI

3LHWUR 3LJ]ROOD

1DWR D 1DSROL GRYH WXWWRUD YLYH QHO q JLRUQDOLVWD SXEEOLFLVWD H
UHVSQVDELOH DUHD FRQWHQXWL GH /D&RPXQLFDJLRQH\$'9 /DXUHDWR LQ 6FLHQJH
GHOOD &RPXQLFDJLRQH FRQ WHVL LQ PDUNHWLQJ DOWHUQD O DWWLYLWj JLRUQDOLVWFLD
TXHOOD GL FRQVXOHQJD +D FROODERUDWR FRQ LO 520\$ &URQDFD 6DOHUQR ,O
1XRYR 6DOHUQLWDQR H 0HWURSROLV

* \$ = (7 7 \$ ' , 1 \$ 3 2 / , , 7 : (%

o] u v š] ••}] v] P o] u] } %œ Å v P } v }
œ v š •šµ]} oo-hv] Å œ•]

hv] š } v ••}] v] P o] u] } %œ } šœ %œ Å v] œ] o] š] š]
oo} •šµ]} D ' / r œ U E %œ œ œ] v š } U µ } v } š š } œ] œ š } œ] oo
•] v i oo- o] u v š i] } v o } v •] P o] } v i] } v o oo œ] œ Z
} oo } œ i] } v } v o - h v] š] š U v µ š œ] i] } v u š } o] • u } oo-
E %œ } o] o h v] Å œ •] š] W µ œ µ ~ h ^ • Z o u œ • ~ ^ Å i] • X / o P œ µ %
] o %œ } (] o } P o] u] } P] } œ v o] œ }]] v] Å] µ]] v • } Å œ %œ %œ • } u •
oo] 2 š o X %œ] v] %œ o %œ • µ %œ %œ } • š }] (µ • š } • š µ] } œ %œ %œ œ • v š š
•• œ o P o] u] } %œ }] o %œ • š } %œ µ ~ •• œ µ v • š œ š P] ((]
] š V] v (š š] U o - µ u v š } oo P o] u] %œ } • š %œ v] o œ %œ %œ • v
u o š š] 2 U ((œ u Z } • o '] } U œ] œ š œ] v oo- œ] v µ š œ] i] }
œ • %œ } v •] o o %œ } P œ š }] v š] • š œ] Z v v }] u } • š œ š } Z o] u v š]
] o %œ v] v } U] o œ] • } U o %œ } o v š U o %œ] i] o %œ š š 2 (Å } œ] •
] š %œ u v š v œ • } š š } } v š œ } oo } o P o] u] } %œ }] o %œ • š
%œ (œ v } v } v • } o } (µ oo] œ] Z]] v (] œ U } u o P µ u] U (œ µ š š U Å
] v] P o] u] } U } u o %œ • š U] o œ] • } %œ œ }] o U o %œ]] v X
%œ œ • } v] v • } Å œ %œ %œ • } U œ] • Z] }] • Å] o µ %œ %œ œ] o] š š] %œ }
} v š } oo-] v] 2 P o %œ %œ] µ X %œ v š] œ] œ Z Z o] š u] š œ
i V š µ š š Å] U v Z • ••] œ š š œ] i] i %œ œ µ v µ • } %œ (œ v i] o
• o š] (µ • š] o] u v š]] µ v œ µ } o } v oo %œ Å v i] } v] (µ • š u o
& œ] } // } µ š œ] , v v œ %œ œ š] } %œ š } oo œ] œ i ò i %œ • } v] v •
] š U œ o µ š š v] š œ v š œ] µ v] Å œ •] š œ] v / š o] U ^ Å i] h ^
} v o] u v š] •] œ o] } v] Å œ • }] v] P o] u] } %œ œ µ v %œ œ]
] š œ v }] v š] Z v] µ P œ µ %œ %œ] X 2 W œ (] o] š œ o - •] } v c
Å v] Å v } (} œ v] š] P œ š µ] š u v š] %œ œ š] %œ v š] oo } • š µ] }] o } œ
%œ œ } (] o } P o] u] } P] } œ v o] œ } U u] • µ œ š } u] v š %œ œ o] Å] ((š š µ
o š œ } %œ } u œ] P P] } U µ u v š Å } %œ } š œ u •]]] š } v P o] o]
] v o š œ š }] v } o } œ } Z œ v } • š š] •• P v š] oo] š •• }] v]
P œ µ %œ %œ] •] œ P] • š œ Å %œ œ o œ] • %œ } • š P o] u] } %œ }] o %œ v i] U
P œ µ %œ %œ } } v] š •• }] v] P o] u] } 2 U œ] (œ] • '] µ • %œ %œ] v
} µ š œ] oo } µ • š š } } œ] • µ o š š } œ } v (œ u š } oo u] • µ œ i] } v] v
Å] š v } œ u o Z Å v] Å ((š š µ š %œ œ š œ P] } œ v] oo-] v i] } oo
œ] } X 2 ' œ i] (µ • š u š } o } P]] v v } Å š] Å] u } %œ } š µ š } } µ u
oo P o] u] v oo- œ } oo i ð } œ • } v } %œ œ • v š] v Z] v
v } š Å } o u v š š š µ š] š } v o] š •• }] v] P o] u] } X v } š } Z]
œ š œ] (Å } œ] • } v } o } • Å] o µ %œ %œ }] œ š œ] } • o œ] •] 2 } u u v š ' œ
2 / œ] • µ o š š] } š š v µ š] %œ } •• } v } •• œ µ š] o] v Z %œ Å o µ š œ o -
• š š }] • o µ š X / v µ u œ } •] š œ } o š]] v (µ • š } • š µ] } • œ v v } µ š] c
] š U o (o } œ š š œ]] v š • š] v o] o %œ œ } (] o }] u š } o]
] v š œ %œ œ • } v o] v oo œ] • %œ } • š P o] u] oo] š U v oo %œ œ } • %œ } • š v
- ^ o µ š v v • œ - h v] Å œ •] š Z u] -

, 012I&,

^S`KaqSÍ>íF>oocíSaISGKíQ^SGK`SG
IS>FKqK

I & / * ! 7 & , + *
9 :) 2 \$) & , : 8 : : 9 > c 8 :

)@_MìHU@_laÇiUmaÇiia]M_o@ÇiiU{{@ìMii@o@oM
R@ualUmla_ai]â@p^M_oaiKM]]@ìS]UIM^U@ila_ola
_a_ìQì]âp_Ul@ì@mmalU@{Ua_Mi_ao@ìol@ìKUMo@
polUM_omìT@ìKU^amol@oai@_ITMìITMip_@ìKUMo
KU@HMoMìKUìoUiaìŽÆì

ìlUIMìl@oalUìKM]]â moUopoaiKUìmIUM_{MìKM]]â@
uM]]U_aiÕ _lÛ m@ÕiU_ila]]@Hal@{Ua_Mila_ì]â/_l
KM]]â/_UuMImUoDì MKMIUlaì iKUì @ia]UìMì]Mì/_U
T@__aiu@]po@oaila^MìU]iilaRU]aiS]UIM^UlaìSUal
KU@HMoMìRammMìU_R]pM_{@oaiK@]]@ìKUMo@Æ



æ]iìU_IUi@]MìlMmpiiamoaiKUìkpMmoaimopKUaiQ
@HH@mm@lMì]@ìS]UIM^U@ìKaiaìU]iì@moaipeiMr
KU@HMoMÉìU_R@ooUÇì]â@p^M_oaiKM]]@ìS]UIM^l
ialo@ì@]]aimuU]piiàìKM]]@ì^@]]@ooU@çÇì@RRMl^
_polU{Ua_Mip^@_@ìMì^Mo@Ha]Um^aiìlMmmaìU]ì _

IUIMII@Æ

i_aoaITMijMiiMlma_Mila_iKU@HMoMÇiiMli^@_oM
KMua_ailUKpIIMiU]ila_mp^aiKMS]Ui@]U^M_oi@Ki@
IUUITUiu_ìRUHIMÇila^Mi]MSp^UÇiRlpoo@ÇiuMIKpl
U_KUIMiS]UIM^UlaÇila^Mi]@ii@mo@ÇiU]iUmai@I
@iipl@oaïmMi@_ITMiiMli]MiiMlma_MiU_ïmaul@iiMr
iamm@_aiMmmMIMipoU]UimIM]oMi@]U^M_o@IUiITM

@__aii@loMIUi@oaï@]]@iIUIMII@i'ÆiMlma_MiU_
IMI]po@oMi_MUioIMiM_oIUip_UuMImUo@IUiU_i o@
^aKaïl@mp@]Mi@ip_@iKUMo@ila_i@]U^M_oUi@iH
iMIUaKaïKUioIMi^MmUÆi.pooMi]Mi@]oIMiI@I@ooM
æ a^Mi@uMu@^aiUiaoU{{@oaÇiU]iilaRU]aiS]UIM^U
MRRMoop@oUiaS_Uial@iilU^@iMiKaiaï]@ila]@{Ua.
KaiaioIMi^MmUiKUikUMo@ila_iS]Ui@]U^M_oUi@Ki
la]alailTMiMI@_aimo@oUi@mmMS_@oUi@]]@iKUM
ol@iUiKpMiSlpiiUimUilMSUmol@u@iiMli]@iUmiam
KM]]åMmiMIU^M_oaiMI@iilMmmaITNiKU^M{{@o@i_I
IURMIUmIMi UpmMiiU_@i amo@HU]MÇiIUIMII@oIU

]iUmp]o@oaïQimo@oaïla_RMI^@oaïK@]]@i^UmpI
uUo@i_al^@]MiMRRMoop@o@iiMliolMiSual_Ui@]]å
U^iU@_o@oaïmp]iHI@IUaÆiæ I@{UMi@ikpMmo@i/
Kalp^M_o@IMiITMìRIMkpM_oUimì^@II@oMiamIU]]@
iIMmM_oUi@_ITMìU_ìITUi_a_ìT@iU]iKU@HMoMiMiI
KUMo@i@iH@mmaiU_KUIMiS]UIM^UlaÆi i_aoaITM
MìR@ualUmla_ai]aimuU]piiaïKUì@loMIUamI]MIamU
la@poalMiKM]]aimopKUaÆ

& " 3 & \$) & \$\$ & , / + * " + 1 &
") 1 % " 0 (

i* &)



"\$&01/ 1&

, / & 255, (5, 12 & 20

SHGDJL'R QHOD&R EEO&FLOV&DERU&RRNLHQ&R&OLF\

FHUF D QHO V

0(5&2/('— /8*/-2

('---21\$=-21&303\$16&\$%*(6&)*1\$12 0217-3(\$17-6&25/\$ 6255(2175(1\$ &267\$ '(B206&9-3\$(6- 9&6&8\$)5-1-\$*52&\$9\$ &267-(5\$ \$0\$)-7\$1\$

6(=-2 &521\$ &8\$ /-7-6&3\$ 5&8/785\$ (78(59-002- &-1(0\$ (0&6\$ &6&282/\$ ()250\$=-2
02'\$ (7(1'(&8&-11\$ 7--=('\$\$:(%'\$&21&256- (/\$9252

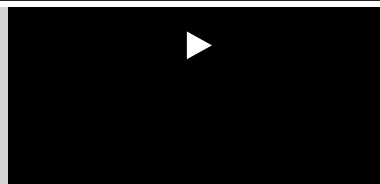
/ \$ 6&23

'LDEHWH GL WLSR XQD GLHWD D EDVV
JOLFHP LFR SX' SUHYHQLUOR

- ULVXOWDWL GHOOR VWXGLR FRQGRWR GD &QU -VD \$YHOOLQ

G&HG

3VGLIWXV&

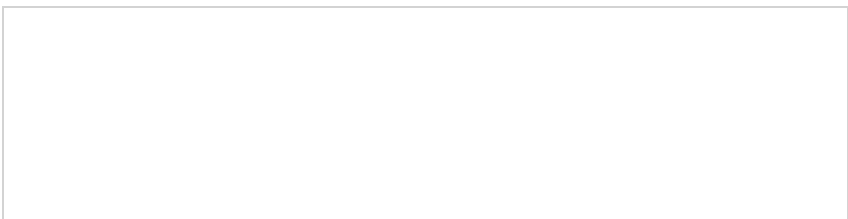


V &RQFHUWR GHOO RUFKHV
&KLRVWUR DUPRQLFR
5HGXFL GD XQ VXFFHVVR V
DOO LQWHUQR GHOO 5DV'
7URLVL L UDJD]]L GHOO RI
GLUHWL GD 0 /DXUD 7UDY
&DVWHOODPPDUH GL 6WDEI
&DUPL

V -O 0LQLVWUR 0DVVLPR *D
&DVWHOODPPDUH GL 6WDEL
*DUDYDJOLD D &DVWHOODP
IXWXUR GHO WXULVPR

V 6FXROD FDOFLR 6 \$QLHO
SUHVWLJLRVR WURIHR UHJL
-O SUHVLGHQWH 7RQLQR 9
O XOWLPR WURIHR YLQWR
JHQHUD]]LRQL PD VRSUDW'
FRPH 4XDJOLDUHOOD R 9LV
PRQR GHO VHWWRUH JLR'
WHFQL

9\$- \$// \$ 6(=-21(9-'(2

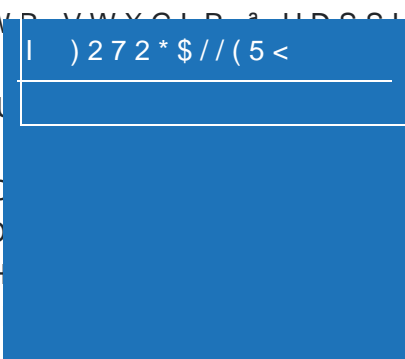


8QD GLHWD FRQ EDVVR LQGLFH JOLFHPFR SRWUHEEH SL
GLDEHWH GL WLSR

4XHVWR LO ULVXOWDWR GHOR VWXGLR 0('*, &DUE SXE
1XWULHQWV FRQGRWR GD ULFHUFDWRUL GHOO ,VWL
GHOO DOLPHQWD]]LRQH GHO &RQVLJOLR QD]]LRQDOH GHOC
\$YHOOLQR &QU ,VD LQ FROODERUD]]LRQH FRQ O 8QLW¢ GLDEHV
H PHWDEROLVPR GHOO 8QLYHUVLW¢)HGH H C
GL 3XUGXH 86\$ H &KDOPHUV 6YH]]LD

,O JUXSSR GL ULFHUFD KD YDOXWD 6HJXL OD 3DJLQD &RQGL' IL(
JLRUQDOLHUR GL LQGLYLGXL LQ VRYUDSSHR PD VHQ]]D GLI
LQIOXHQ]]DWR GDOOD GLHWD

,O SULQFLSDOH SUHVXSSRVWR GL TXHVWR VWXGLR 2 HJQ]]HV
FRQVDSHYROH]]D FKH DEEDVVDUH OD O S
HVVHUH XQD VWUDWH]]LD HIILFD]]H SHU U Q]]I
LQIDWWL O DXPHQWR GHOO JOLFHP]]D S SSI
GHO SURFHVVR FKH SRUWD DOOR VYLC DW
5RVDOED *LDFFR ULFHUFDWULFH QHO L]]L
PHWDEROLVPR SUHVVR LO &QU ,VD GL \$YH
UHVSRQVDELOH GHO SURJHWWR GL ULFHU



I)272*\$/(5<

3UHFHGHQWL VWXGL KDQQR GLPRVWUDY
JOLFHP LFR FRPH LO SDQH ELDQFR LO
SDWDWH IDYRULVFRQR O DXPHQWR GHOC
3HUWDQWR OH SHUVRQH FRQ GLDEHWH SH
JOLFHP LD GRSR LO SDVWR GHYRQR U
DOLPHQWL SUHIHUHQGR QRQ VROR TXHC
IUXWWD YHUGXUD H FHUHDOL LQWHJUD
LQGLFH JOLFHP LFR FRPH OD SDVWD LO U

I /H IRWR GL RJJL GDO DC
8QD GRPHQLFD GD WLWD
VWF
XP
JH
DOL
H S

7XWWDYLD QRQ a PDL VWDWR DSSXUDV
VRYUDSSHVR D ULVFKLR GL VYLOXSSD
HVVHUH XWLOL VFHOWH DOLPHQWDUL
JOLFHP LFR

I / DQQR LQ FXL EU OH
'HEXWWR DO &DPSDQL WLS
7HDWUR SHGDJRJLD H RQ

6DSSLDPR GD SUHFHGHQWL ULFHUFKH
ULGXFH LO ULVFKLR GL GLDEHWH WLS
FDUDWWHUL]]D SHU XQ XVR SUHIHUHQ]]L
JOLFHP LFR QRQ a QRWR VH OD VFHOWD G
QHOO SUHYHQ]]LRQH GL TXHVWD PDODV
ULFHUFDWULFH GHOO)HGHULFR ,, H FRD

HG
DC
D
L D
UL
XGL

+DQQR SDUWHFLSDWR DOOD ULFHUFD
ULVFKLR GL VYLOXSSDUH LO GLDEHWH U
LQ ,WDOLD 6YH]]LD H 86\$

I /L *DOOL ERH FRQWU
3RVL]]LRQH D SURWH]]LFR YU
H F

\$G HVVH YHQLYD DVVHJQDWD LQ PRGR FD
D EDVH GL FHUHDOL FRQ GLYHUVR LQGLFH
PHVL WXWWH OH DOWUH FDUDWWHULVW
GXH JUXSSL 3HU IDFLOLWDUH O DGHVLR
D EDVVR LQGLFH JOLFHP LFR YHQLYD
SDUWHFLSDQWL DOOR VWXGLR H DL O
DYHYDPR LSRWL]]DWR LO SURILOR JO
PHGLDQWH SUHOLHYL HIIHWWXDWL RJQL R

FR
Q SH
D H
SUI
WX
DE
LH
OD

SUDQJR ILQR DO WDUGR SRPHULJJLR D
GLHWD FRQ JOL DOLPHQWL DG DOWR LQGL
LQDOWHUDWR LQ FRORUR FKH HUDQR VWDWL DVVHJQDWL DO
LQGLFH JOLFHP LFR /D GLIIHUHQ]]D SL» PDUFDWD WUD L GX
UHJLVWUDYD SHU OD ULVSRVWD JOLFHP LFD GRSR LO SUDQJR
GHOO HVSHULPHQWR HUD SUHVVRFK« GLPH]]DWD QHO JUXSSR F
EDVVR LQGLFH JOLFHP LFR ULIHULVFH *LXVHSSLQD
ULFHUFDWULFH GHOO 8QLYHUVLW)HGHULFR ,, H FRDXWULFH GH

I (VWDWH DO 3DUFR \$U
3DVVHJJLDWH QRWWXU
OXJOLR H DJRVWR GDO
9\$- \$// \$ 6(=-21()2 WU
WU

4XHVWR ULVXOWDWR HUD FRQIHUPDWR GDOOD PLVXUD]]LRQH
GHOO JOLFHP LD LQ FRQGL]]LRQL GL YLWD QRUPDOH FKH YHQL
SHU WUH JLRUQL DOO LQL]]LR H DOOD ILQH GHOR VWXGLR PHGL
LPSLDQWDWR VXO EUDFFLR *UD]]LH D TXHVWD PHWRGRORJLD

DEELDPR SRWXWR GRFXPHQW DUH FKH IUHTXHQWL H
RVFLOOD]LRQL GHOOD JOLFHPLD QHOO DUFR GHOOH RUH
DQFKH LQ FKL QRQ KD LO GLDEHWH H FKH HVVH SRVVR
QRWHYRPHQWH DWWXWLWH FRQ OD GLHWD D EDVVR LQGLF
QRWR FKH L SLFFKL JOLFHPLFL GDQQHJJLDQR OD SDUHW
GHOOH DUWHULH H IDYRULVFRQR OR VYLOXSSR GL DUV
FRPPHQWD *DEULHOH 5LFFDUGL GHOOD)HGHULFR ,, FRDX
VWXGLR

, ULVXOWDWL RWWHQXWL SRVVRQR HVVHUH XWLOL DQFK
O LPSDWR GHOOD GLHWD VX DOWUL ELRPDUFDWRUL ULOHYDC
VDOXWH , QXPHURVL GDWL UDFFRWL LQ TXHVWR VWXGLR VDL
SHU FRPSUHQQGHUH PHJOLR OH LQWHUD]LRQL WUD OD GL
EDWWHULFD LQWHVWLQDOH H LO SURILOR GHL PHWDEROLWL SO
LQWHUSUHWDUH OH GLIHUHQ]H LQWHUSHUVRQDOL QHOO ULV
DOOD GLHWD QHOO SURVSHWLYD GL XQD QXWUL]LRQH
FRQFOXGH *LDFFR

3HU ULFHYHUH OH QRWL]LH GLUHWWDPHQWH~~HXQKDW~~SS PHPRUL]JD LO QXPHU
PHVVDJLR 67\$57 SHU SURFHGHUH

k 5-352'8=-21(5-6(59\$7\$

[Redacted]

=====

WL SRWUHEEHUR LQWHUHVVDUH DQFKH

[Redacted]

DOWUH QHZV

46-13 4-%2)33231-% '90896%74)88%'3074368 8)'2303+--%

+20(1\$32/, \$9(//,12 %(1(9(172 6\$(/512 &\$6(57\$ &\$/\$%5,\$ %086) 7)>v32-

'632%'%430-8-'%0896%78=0)6-'36(- (-2*%2>-%

DGY

9RE HMIXE TIV TVIZIRMVI M HM XMTS QIWWE E TYRXS

1\$32/,! &521\$&\$

0DUWHGu /XJOLR

EHZ

8QDGLHFRDQ EDVVR LQGLFH JOLFHPFR SRWUHEEH SUHYHQLUH LO GLDEHWH
 É OD WHVL VRWVHGLVROGIBSOXEDULEIXWUJXQWV
 FRQGRWWR GD ULFHUFDWRUL GHOOI,VWLWXWR GL VFLHQJH GHOOI'DOLPHQ'
 QDJLRQDOH GHOOH ULFHUFKH GL \$YHOOLQR &QU ,VD LQ FROODERUDJLRQH
 GLDEHWH QXWULJLRQH H PHWDEROLVPR GHOOI'8QLYHUVLWj)HGHULFR ,, GI
 8QLYHUVLWj GL 3XUGXH 6WDWL 8QLWL H &KDOPHUV 6YHJLD ,O JUXSSR G
 YDOXWDWR FRPH LO SURILOR JOLFHPFR JLRUQDOLHUR GL LQGLYLGLXL LQ
 VHJJD GLDEHWH VLD LQIOXHJJDWR GDO FLER ©\$EEDVVDUH OD JOLFHPFD
 SXz HVVHUH XQD VWUDWHJLD HIILDFDH SHU ULGXUUH OI'LQFLGHQJD GHO GL
 OI'DXPHQWR GHOO JOLFHPFD SRVWSUDQGLDOH UDSSUHVHQWD OI'LQLJLR C
 SRUWD DOOR VYLOXSSR GROODEPDODDWFHDFDDMUHLFPD
 QHOOI'\$UHD GL QXWULJLRQH XPDQD HDPHWDGGOORPHR SUHVVR LO
 UHVSQRVDELOH GHO SURJHWWR GL ULFHUFD

%4463*32(-1 1- 7%098) '327-+0- 98-0-
 (MIXE PEQTS IWXMZE GSWMIXE HM 2S[
 WYTIVEVI PE TVSZE GSWXTQIHVI OK M
 WIXXMQERE P

-PEVJ &PEWM I 8SXXM P YP;
TVMQE HIPPE WITEVE^MSRI
HMWTIVEXM

(%00% 78)77% 7)>-32)

