

**"A COMPARATIVE STUDY OF YOGIC AND NON
YOGIC PERSON'S PSYCHOLOGICAL WELL-BEING
AND STATE - TRAIT ANXIETY "**

cc 1 MUS VG[IAGI MUS jI ISTVMGL DGMU{7FIGS
;]BFSFZL VG[5IZI: YITHgI v 5U8 IJSTIRTF
VU[GM V[§ T], GftDS VeIF; cc

THESIS

**of the Ph.D. Thesis to be submitted to
Saurashtra University
RAJKOT**

**FOR THE DEGREE OF
DOCTOR OF PHILOSOPHY
IN
PSYCHOLOGY**

BY :

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APRIL - 2010

Reg. No : 3587

Reg.Dt. : 28 Feb.,2007

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RAJKOT

DECLARATION

I, here by declare that the research work presented in thesis is prepared by me after studying several references. The description and narration found there in are entirely original. Therefore I declare then authentically as original. Moreover I am responsible for opinions and the other details found in this thesis.

I declare thesis to by my original work.

Date :- /04/2010

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CERTIFICATE

This is to certify that work embodied in this thesis entitled "**A COMPARATIVE STUDY OF YOGIC AND NON-YOGIC PERSON'S PSYCHOLOGICAL WELL-BEING AND STATE-TRAIT ANXIETY**" has been carried out by **PIPALIYA HANSAGAURI N.** under my direct guidance and supervision. I also declare that the work done and presented in this thesis is original and independent.

Date :- /04/ 2010
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k6 :JLSFZ

; XMWG SFI " VGS jI ISTVMGL 5Z6F4 DFUNX'G VG[VFXLJFNYL XSI AG[KP
5]:TJ ; XMWG 56 VGS jI ISTVMGF ; CSFZG; HG KP VCLV; J[5]T VFEFZGL , FU6L
jI ST SZL k6 :JLSF~ KP

DFZF ; DU ; XMWG SFI "NZIDI FG ; i NI TFYL DFUNX'G VF5GFZ zL VFZPVFZP
58, DIC, F SM, HGF DGMJ7FGGF jI FbI FTF VG[DFZF DFUNXS zL OFWP TZI, SFAIG
V, P hf, FJOLIFGM C\ VT0SZ65J'S VFEFZ DFG] KP ; XMWGSFI GL ; DU 5]SIF
NZIDI FG jI ISTUT Z; , . H[VD]I DFUNX'G VG[5Z6F 5ZL 5FOL K[T[AN, C\ TDGL
; NJ k6L KP

VF ; FY[DG[ZFC ATFJGFZ DGMJ7FG EJGGF VwI 1F VG[DFZF U]- OFWP OLPHP
E8' ; FC[A4 OFWP UWJ"HMDFL ; FC[A VG[OFWP IDGF1FLAG OLP NJ; F. GM C\ i NI 5J'S
k6EFJ jI ST S~ KP VF p5ZFT OFWP HMU; 6 ; FC[AGM56 C\ VFEFZ DFG] KP

DFZF ; XMWG SFI 'DF; DU|ZLT[DNN SZGFZ DFZL AC[G 5F~, GM C\ VFEFZ DFG] K]
TYF DG[I MUI ; DI[; CFG]E]T AGGFZ VIDTEF. 58, VG[S<5]EF. GM 56 C\ VFEFZ
DFG] KP

; XMWG SFI 'DF\ D G[; CI MU VF5GFZ I MUTF, LD SgS R, FJGFZ ; M-F :S, GF
I5h; L5F, IJHI I; C ; M-F4 AF<SG0GL AFZLDF I MU IXBJGFZ 5ZDFZ ; FC[A4 RF6
; FC[A TYF HFDGUZDFVVFJ, UJHZET VFI JN I]GJI; 8LDFRF, TF I MU . g:8L8I BGF
jIF; ; ZGM C\ VFEFZ DFG] K] TYF HFDGUZDF IJ IJW IJ:TFZDFZC[TF I MU SZTF VG[I MU
G SZTF jI ISTVMGM; CI MU 5F%T YI M K[V; JGM VFEFZ jI ST S~ KP

SND%I BZF. h 8F. 5 ; BLU SZGFZ VIDTEF. RF6 5]I[VFEFZGL , FU6L jI ST
S~ KP

HDFG ; FY JUZ VF SFI "G Y. XSI\ CMT T]F DFZF 5IT ING\ ALP58, GL C]
i NI 5J'S VFEFZL KP VF p5ZFT HGFDFYL ; DI , . G[D]DF~ VF SFI "SI] K[T]L DFZL
INSZL O] FGL 56 C\ k6L KP TYF HDFG TZOYL Jft; <I VG[NZS 5SFZ[DNN 5ZL 5F0GFZ
VG[HDFG] k6 SNF5L G RBJL XSFI V]F DFZF DFTFvI5TF TDH EF. vEFEL VG[DFZL
ACGM TDH DFZF ; J[SB]ALHGMGL i NI 5J'S VFEFZL KP

VGSDI6SF

5SZ6	IJUT	509 GAZ
1	IJQFI 5JX	
2	; XMWG ; FICTI GL ; DL1FF	
3	; XMWGGF C[T]VM ; XMWG I MHGF VG[5 S F	
4	5IZ6FDGL RRF"VG[VYW8G	
5	; XMWGGF\TFZ6M VG[E, FD6M	
★	VF, BM	
★	; WE"; JR	
★	5IZIX08	
	* 5 GFJ, LGM GDGM	

; FZ6L ; JR

; FZ6L SDFS	IJUT	509 GAZ
1.1	wI FG NZdI FG DUHDFAYTAVF<OF TZUM VUJL VFSIT	
1.2	I MU V§ 5IJ+ IJ7FGv VUJL VFSIT	
3.1	2x2x3 O§8MZI , I MHGF VTU" 5IZJti M'VG[TGL S1FFVM	
3.2	2x2x3 O§8MZI , I MHGF VTU" 5ti § HYDA; DFIJ08 jI ISTVMGL ; bI F	
3.3	IJEFUv 2 I MHGF VTU" 5IZJti M'VG[TGL S1FFVM	
3.4	IGNXG\J6G	
3.5	State- Trait Anxiety Scale GL IJ` J; GLI TF VFS NXF"JT]SMQ8S	
3.6	DGMJ{7FIGS ; }BFSZLGF\38SMVG[TGF IJWFG GAZM	
4.1	O§8MZI , I MHGF VTU" IJLW HYMGL DGMJ{7FIGS ; }BFSZLGF\5F%TFSMGA DwI SMTYF 5DF6 IJR, GM	
4.2	jI ISTGM 5§FZ4 jI ISTGL HFIT VG[pDZGF ; NED\ DGMJ{7FIGS ; }BFSZL VUGF\ANOVA GM ; FZFX	
4.3	HYMGL DGMJ{7FIGS ; }BFSZLGF DwI SMTYF DwI SMJrRGF TOFJTM	
4.4	O§8MZI , I MHGF VTU" IJLW HYMGF\ DGMJ{7FIGS ; }BFSZLGF\ 38S ; VMFGF\ DwI SMTYF 5DF6 IJR, GM	
4.5	jI ISTVMGM 5§FZ4 HFIT VG[pDZGF ; NED\ DGMJ{7FIGS ; }BFSZLGF\38S ; VMF VUGF\ ANOVA GM ; FZFX	
4.6	HYMGL DGMJ{7FIGS ; }BFSZLGF\38S ; VMFGF\ DwI SMTYF DwI SMJrRGF TOFJTM	
4.7	O§8MZI , I MHGF VTU" IJLW HYMGL DGMJ{7FIGS ; }BFSZLGF\38S ; FDFIHS VWFZGF\ 5F%TFSMGA DwI SMTYF 5DF6 IJR, GM	

; FZ6L SDFS	IJUT	509 GAZ
4.8	jIISTGM 5SFZ4 HFIT VG[pDZGF ; NEDF\ DGMU{7FIGS ; }BFSFZLG}38S ; FDFIHS VFWFZ VUJGF ANOVA GM; FZFX	
4.9	HYMGL DGMU{7FIGS ; }BFSFZLG} 38S ; FDFIHS VFWFZGF DwI SM TYF DwI SM JrRQGF\TOFJTM	
4.10	O\$8MZI , IMHGF VTU" IJIW HYMGL DGMU{7FIGS ; }BFSFZLG}38S VYUJICGTFGF 5F%TFSMGF DwI SM TYF 5DF6 IJR, GM	
4.11	jIISTGM 5SFZ4 HFIT VG[pDZGF ; NEDF\ DGMU{7FIGS ; }BFSFZLG}38S VYUJICGTF VUJGF ANOVA GM; FZFX	
4.12	HYMGL DGMU{7FIGS ; }BFSFZLG} 38S VYUJICGTFGF DwI SM TYF DwI SM JrRQGF TOFJTM	
4.13	O\$8MZI , IMHGF VTU" IJIW HYMGL DGMU{7FIGS ; }BFSFZLG} 38S XFZLIZS OIZI FNGF 5F%TFSMGF DwI SM TYF 5DF6 IJR, GM	
4.14	jIISTGM 5SFZ4 HFIT VG[pDZGF ; NEDF\ DGMU{7FIGS ; }BFSFZLG}38S XFZLIZS OIZI FNGF VUJGF ANOVA GM; FZFX	
4.15	HYMGL DGMU{7FIGS ; }BFSFZLG} 38S XFZLIZS OIZI FNGF DwI SM TYF DwI SM JrRQGF TOFJTM	
4.16	O\$8MZI , IMHGF VTU" IJIW HYMGL DGMU{7FIGS ; }BFSFZLG}38S VfDUFZJGF 5F%TFSMGF DwI SM TYF 5DF6 IJR, GM	
4.17	jIISTGM 5SFZ4 HFIT VG[pDZGF ; NEDF\ DGMU{7FIGS ; }BFSFZLG}38S VfDUFZJGF VUJGF ANOVA GM; FZFX	
4.18	HYMGL DGMU{7FIGS ; }BFSFZLG} 38S VfDUFZJGF DwI SM TYF DwI SM JrRQGF TOFJTM	

; FZ6L SDF5	IJUT	509 GAZ
4.19	jI ISTGM 5ŞFZ VG[TVMGL HFITGL VFTZIS FGF ; NEDFjI ISTGF\ DGMU{7FIGS ; BŞFZLGF\38S VftDUFZJ VUJGF L.S.D. GF 5IZ6FDM	
4.20	jI ISTGM 5ŞFZ VG[TGL pDZGL VFTZIS FGF ; NEDFjI ISTGF\ VftDUFZJ VUJGF L.S.D. GF 5IZ6FDM	
4.21	OŞ8MZI , I MHGF VTUT IJIJW HYMGL DGMU{7FIGS ; BŞFZLGF\38S IJ3FI S , FU6LGF\ 5F%TF5MGF DwI SMTYF 5DF6 IJR, GM	
4.22	jI ISTVMGM5ŞFZ4 HFIT VG[TGL pDZGF ; NEDF\ DGMU{7FIGS ; BŞFZLGF\38S IJWFI S , FU6L VUJGF ANOVA GM; FZFX	
4.23	HYMGL DGMU{7FIGS ; BŞFZLGF\38S IJWFI S , FU6LGF\ DwI SMTYF DwI SM JrRGF TOFJT	
4.24	jI ISTVMGM 5ŞFZ VG[TGL HFITGL VFTZIS FGF ; NEDF\ DGMU{7FIGS ; BŞFZLGF\38S IJWFI S , FU6L VUJGF L.S.D. GF 5IZ6FDM	
4.25	OŞ8MZI , I MHGF VTUT IJIJW HYMGL DGMU{7FIGS ; BŞFZLGF\ 38S SFI DL 5JITGF\5F%TF5MGF DwI SMTYF 5DF6 IJR, GM	
4.26	jI ISTVMGM 5ŞFZ4 HFIT VG[TGL pDZGF ; NEDF\ DGMU{7FIGS ; BŞFZLGF\38S SFI DL 5JIT VUJGF ANOVA GM; FZFX	
4.27	HYMGL DGMU{7FIGS ; BŞFZLGF\38S SFI DL 5JITGF DwI SM TYF DwI SM JrRGF TOFJT	
4.28	OŞ8MZI , I MHGF VTUT IJIJW HYMGL DGMU{7FIGS ; BŞFZLGF\ 38S ÖJG ; VMFGF\5F%TF5MGF DwI SMTYF 5DF6 IJR, GM	
4.29	jI ISTVMGM 5ŞFZ4 HFIT VG[TGL pDZGF ; NEDF\ DGMU{7FIGS ; BŞFZLGF\38S ÖJG ; VMF VUJGF ANOVA GM; FZFX	

SID	IJUT	509 GAZ
4.30	HYMGL DGMU{7FIGS ; BFSFZLG}38S ÖJG ; VMFGA Dwl SM TYF Dwl SM JrRGF TOFJTP	
4.31	jI ISTGM 5SFZ VG[TMGL HFITGL VFTZIS FGF ; NEDA jI ISTGL DGMU{7FIGS ; BFSFZLG}38S ÖJG ; VMF VUJGF L.S.D. GF 5IZ6FDM	
4.32	O\$8MZI , IMHGF VVTUT IJIW HYMGF DGMU{7FIGS ; BFSFZLGA}38S VftD; V DGA 5F%TFSMGF Dwl SM TYF 5PF6 IJR, GM	
4.33	jI ISTVMGM 5SFZ4 HFIT VG[TGL pDZGF ; NEDA DGMU{7FIGS ; BFSFZLG}38S VftD; V D VUJGF ANOVA GM; FZFX	
4.34	HYMGL DGMU{7FIGS ; BFSFZLG}38S VftD; V DGA Dwl SM TYF Dwl SM JrRGF TOFJT	
4.35	jI ISTGM 5SFZ VG[pDZGL VFTZIS FGF ; NEDA jI ISTGL DGMU{7FIGS ; BFSFZLG}38S VftD; V D VUJGF L.S.D. GF 5IZ6FDM	
4.36	O\$8MZI , IMHGF VVTUT IJIW HYMGL DGMU{7FIGS ; BFSFZLGA}38S TF6GA 5F%TFSMGF Dwl SM TYF 5PF6 IJR, GM	
4.37	jI ISTVMGM 5SFZ4 HFIT VG[TGL pDZGF ; NEDA DGMU{7FIGS ; BFSFZLG}38S TF6 VUJGF ANOVA GM; FZFX	
4.38	HYMGL DGMU{7FIGS ; BFSFZLG}38S TF6GADwl SM TYF Dwl SM JrRGF TOFJT	
4.39	O\$8MZI , IMHGF VVTUT IJIW HYMGF ; FZF56FGF DGMU{7FIGS ; BFSFZLGA}38SGF 5F%TFSMGF Dwl SM TYF 5PF6 IJR, GM	
4.40	jI ISTVMGM 5SFZ4 HFIT VG[TGL pDZGF ; NEDA DGMU{7FIGS ; BFSFZLGF}38S ; FZF56F VUJGF ANOVA GM; FZFX	
4.41	HYMGL DGMU{7FIGS ; BFSFZLG}38S ; FZF56FGA Dwl SM TYF Dwl SM JrRGF TOFJT	

; FZ6L SDF8	IJUT	509 GAZ
4.42	0§8MZI , I MHGF VTUT IJW H¥MGL ; FDFgI V; ZSFZSTFGFDGMW{7FIGS ; }BFSFZLGF\38SGF 5F%TF8MGF DwI SM TYF 5DF6 IJR, GM	
4.43	jI ISTVMGM 5§FZ4 HFIT VG[TGL pDZGF ; NEDFDGMW{7FIGS ; }BFSFZLG}38S ; FDFgI V; ZSFZSTF VUJGF ANOVA GM; FZFX	
4.44	H¥MGL DGMW{7FIGS ; }BFSFZLG}38S ; FDFgI V; ZSFZSTFGF\ DwI SM TYF DwI SM JrRGF TOFJT	
4.45	0§8MZI , I MHGF VTUT IJW H¥MGF VftDctIFGF IJR FZMGF DGMW{7FIGS ; }BFSFZLGF\38SGF 5F%TF8MGF DwI SM TYF 5DF6 IJR, GM	
4.46	jI ISTVMGM 5§FZ4 HFIT VG[TGL pDZGF ; NEDFDGMW{7FIGS ; }BFSFZLG}38S VftDctIFGF IJR FZM VUJGF ANOVA GM; FZFX	
4.47	H¥MGL DGMW{7FIGS ; }BFSFZLG}38S VftDctIFGF IJR FZMGF DwI SM TYF DwI SM JrRGF TOFJT	
4.48	0§8MZI , I MHGF VTUT IJW H¥MGL 5IZI:YITHgI IRTFGF\ DwI SM TYF 5DF6 IJR, GM	
4.49	jI ISTVMGM 5§FZ4 HFIT VG[TGL pDZGF ; NEDF 5IZI:YITHgI IRTF VUJGF ANOVA GM; FZFX	
4.50	H¥MGL 5IZI:YITHgI IRTFGF\ DwI SM TYF DwI SM JrRGF TOFJT	
4.51	jI ISTVMGM 5§FZ VG[TGL pDZGL VFTZIS IFGF ; NEDF jI ISTGL 5IZI:YITHgI IRTFGF DwI SM VG['F' D}I	
4.52	jI ISTVMGM 5§FZ VG[TGL pDZGL VFTZIS IFGF ; NEDATVMGL 5IZI:YITHgI IRTF VUJGF L.S.D. GF 5IZ6FDM	
4.53	0§8MZI , I MHGF VTUT IJW H¥MGL 5µ8IJUSTIRTFGF\ 5F%TF8MGF DwI SM TYF 5DF6 IJR, GM	

; FZ6L SDF5	IJUT	509 GAZ
4.54	jI ISTGM 5SFZ4 HFIT VG[pDZGF ; NEDFA 5U8IJSTIRTF VUGF ANOVA GM; FZFX	
4.55	HYMGL 5U8IJSTIRTFGF DwI SM TYF DwI SMJrRGF TOFJTM	
4.56	VMKL4 DwI D VG[JW] DGMU{7FIGS ; BBSFZL 3ZFJTF jI ISTVMGL 5IZI:YITHgI IRTFGF DwI SM 5PF6 IJR, G VG[c 8lc D}I M	
4.57	VMKL4 DwI D VG[JW] DGMU{7FIGS ; BBSFZL 3ZFJTF jI ISTVMGL 5U8IJST IRTFGF DwI SM 5PF6 IJR, G VG[c8lc D}I M	

Vf, B ; JR

GAZ

Vf, BGL IJUT

- 1 I MUS VG(IAGI MUS jI ISTVMGL DGMW{7FIGS ; BfSFZL NXFJTM:TEF, BP
- 2 I MUS VG(IAGI MUS jI ISTVMGL 5IZI:YITHgI IRVF NXFJTM:TEF, BP
- 3 I MUS VG(IAGI MUS jI ISTVMGL 5U8 IJST IRVF NXFJTM:TEF, BP
- 4 DGMW{7FIGS ; BfSFZLGF ; NEDf\5IZI:YITHgI IRVF NXFJTM:TEF, BP
- 5 DGMW{7FIGS ; BfSFZLGF ; NEDf\5U8 IJST IRVF NXFJTM:TEF, BP

5\$Z6v 2
; XMG ; FICtI GL ; DL1FF

2.1 5|:TFJGF

2.2 5IZI:YITHgI v5|U8 IJSTIR\TF VUJGF VeI F; M

2.3 DGMJ{7FIGS ;]BFSFZL VUJGF VeI F; M

2.4 VeI F; MGL ; DL1FF

2.5 5|:TJT VeI F; XF DF8[m

5\$Z6v 3
; \XWGGF C[T]VM ; \XWG I MHGF VG[5|S| F

- 3.1 5|:TFJGF
- 3.2 ; D:IF SYG
- 3.3 Vwl I GGF C[T]VM
- 3.4 X|I ptS<5GFVM
- 3.5 Vwl I GGF\5IZJtI M
- 3.6 ; \XWG I MHGF
- 3.7 IGNX"5; NUL
- 3.8 DFICTL V\$+LSZ6GF; FWGM
- 3.9 DFICTL V\$+LSZ6GL 5|S| F
- 3.10 VFSOFXF: +LI 5|I]STVM

5§Z6v 4
5IZ6FDGL RRF"VG[VY"38G

4.1 5|:TFJGF

4.2 IJEFUv1

jI ISTGM 5§FZ4 HFIT VG[pDZGF\ ; NE'DF\ T\MGL
DGMJ{7FIGS ;]BFSFZL4 5IZI:YITHgI v5|U8 IJST IR\TF VG[
DGMJ{7FIGS ;]BFSFZLGF\13 38SM

4.2.1 jI ISTGM 5§FZ4 HFIT VG[pDZGF\ ; NE'DF\ T\MGL DGMJ{7FIGS
;]BFSFZLP

4.2.2 jI ISTGM 5§FZ4 HFIT VG[pDZGF\ ; NE'DF\ D GMJ{7FIGS
;]BFSFZLGF\13 38SMP

4.2.2.1 jI ISTGM 5§FZ4 HFIT VG[pDZGF\ ; NE'DF\ DGMJ{7FIGS
;]BFSFZLG\ 38S ; \TMQFP

4.2.2.2 jI ISTGM 5§FZ4 HFIT VG[pDZGF\ ; NE'DF\ DGMJ{7FIGS
;]BFSFZLG\ 38S ; FDFIHS VFWFZP

4.2.2.3 jI ISTGM 5§FZ4 HFIT VG[pDZGF\ ; NE'DF\ DGMJ{7FIGS
;]BFSFZLG\ 38S VY'IJICGTFP

4.2.2.4 jI ISTGM 5§FZ4 HFIT VG[pDZGF\ ; NE'DF\ DGMJ{7FIGS
;]BFSFZLG\ 38S XFZLIZS OIZI FNP

4.2.2.5 jI ISTGM 5§FZ4 HFIT VG[pDZGF\ ; NE'DF\ DGMJ{7FIGS
;]BFSFZLG\ 38S VftDUFZJP

4.2.2.6 jI ISTGM 5§FZ4 HFIT VG[pDZGF\ ; NE'DF\ DGMJ{7FIGS
;]BFSFZLG\ 38S IJWFI S , FU6LP

- 4.2.2.7 jI ISTGM 5|SFZ4 HFIT VG[pDZGF ; NE'DFADGMJ{7FIGS ;]BFSFZLG\ 38S SFI DL 5|U'ITP
- 4.2.2.8 jI ISTGM 5|SFZ4 HFIT VG[pDZGF ; NE'DFADGMJ{7FIGS ;]BFSFZLG\ 38S ÒJG; \TMQFP
- 4.2.2.9 jI ISTGM5|SFZ4 HFIT VG[pDZGF ; NE'DFADGMJ{7FIGS ;]BFSFZLG\ 38S VftD; \ DP
- 4.2.2.10 jI ISTGM 5|SFZ4 HFIT VG[pDZGF ; NE'DFADGMJ{7FIGS ;]BFSFZLG\ 38S TF6P
- 4.2.2.11 jI ISTGM 5|SFZ4 HFIT VG[pDZGF ; NE'DFADGMJ{7FIGS ;]BFSFZLG\ 38S ; FZF56P
- 4.2.2.12 jI ISTGM5|SFZ4 HFIT VG[pDZGF ; NE'DFADGMJ{7FIGS ;]BFSFZLG\ 38S ; FDFgI V; ZSFZSTF
- 4.2.2.13 jI ISTGM 5|SFZ4 HFIT VG[pDZGF ; NE'DFADGMJ{7FIGS ;]BFSFZLG\ 38S VftDCtI FGF IJRFZMP
- 4.2.3 jI ISTGM 5|SFZ4 HFIT VG[pDZGF\ ; NE'DF\T\VMGL 5IZI: YITv HgI IR\TFP
- 4.2.4 jI ISTGM 5|SFZ4 HFIT VG[pDZGF\ ; NE'DF\ T\VMGL 5|U8 IJST IR\TFP
- 4.3 IJEFUv2
DGMJ{7FIGS ;]BFSFZLG\ ; NE'DF\5IZI: YITHgI v5|U8IJST IR\TFP
- 4.3.1 jI ISTVMGL DGMJ{7FIGS ;]BFSFZL VG[5IZI: YITHgI IR\TFP
- 4.3.2 jI ISTVMGL DGMJ{7FIGS ;]BFSFZL VG[5|U8 IJST IR\TFP

5\$Z6v 5
; XWGGF TFZ6M VG[E, FD6M

5.1 5|:TFJGF

5.2 Vwl I GGF\TFZ6M

5.3 Vwl I GGL DI FNFVM

5.4 Vwl I GGF ;]RTFY"

5.5 EIJQI DAVFU/ VeIF; DF8GF ; RGM

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OWF. 5L. ; FZO³F & H], F." sZ__&f ; BL S{ [ZC[m s^S 5|³/8S, UF. 0³4
UMJqN 5|SFXG4 UM5F, 5Zf ZM04 HI 5Zv #_Z_!(4 5'. !_ v !\$!

7FGxJZFI " 0 NÿX'GRFI " s!))&f IS|| ftDS IMJfeIF; 5|SFXS 0 NXG IMJ
DCFIJnf, I VFI'JG4 ZMHO³4 5'. ()v)&

:JFDL ; tI 5IT 5IZJFZHS sHFgljVfZlv **2005**f4 I MUNXGDYGF UHZFTLVGJFN4
5SFXS4 NXGI MU4 DCFIJnf, I4 VFI JG4 ZMH04 5P 4-22, 191-2003, 204-207, 410.

:JFDL ; tI 5IT 5IZJFHS (**2000**)4 I MUvDLDF\ F4 s I MJG\ I YFY" :J~5 TYF
I MUJQFI S EfiqTVMG\ IGJFZ64 5SFXS o :JFDL ; tI 5IT 5IZJFHS4 NXGvI MU
IJnf, I4 VFI JG IJSF; OFD4 ZMHOP

:JFDL ZFDNJ (2005)4 I MU ; FWGF VG[I MU IRIS; F ZC:IP INjI 5SFxG4 INjI I MU
DINZ 8÷84 S5F/] AFU VfzD4 SGB, 4 CIZSFZ4 pTZFR, P 5P 1-39. 42-62, 114-120,
142-166.

:JFDL zL ZFDNJÒ DCFZFH sOL; ðAZ **2003**) 5f6FI FD ZC:I INjI 5SFxG4 INjI I MU
DINZ 8÷84 SGB, 4 CIZSFZP

OFWp I+JNL VDP4 OFWp 5FZ[B ALP (**1994**). IX1F6DFVFSOFXF:+4 IJGI; 8L UY
IGDF% AM4 UHZFT ZFHIP

OFWp pRF8 VP (**1994**). IJRZ6 5yYSZ64 :JP OFWp CIZEF. ÒP Nf; F. 4 DDMZLI ,
VHI SXG 8÷8P ZFHSMB

7FG[JZFI sOjAVfZL4 **2006**)4 I MU ; FWGFGF VF9 VUM 5SFXS o NXGI MU DCFIJnf, I
5P 3-16.

AP JLZgS4 sVMS8MAZ **2004**) VF; G jI FI FD sJIW VG[, FEF NXGI MU DCFIJnf, I4
VFI JG4 ZMH0 5P 1-64.

VRFI " VE INJ IJnf, SFZ4 sVMS8MAZ **2006**), JINS p5NXDF/F4 JFG5;Y ; FWS
VfzD4 VFI JG4 ZMH04 5P 49-53.

zL Z6I; C VFI " s; %8ðAZ **1994**)4 ACDIJ7FG4 s5P:JFDLzL ; tI 5ITÒ 5IZEFHS4
VRFI 'zL 7FG[JZÒ TYF p5fwI FI zL IJJSEJF6Ò NXGFRFI GF ISJI FtDS I MU 5IX1F6
IXALZMGF 5JRGMGF VFWFZ[SZJDFVfJ[, J; S, Gf 5SFXS o NXGI MU DCFIJnf, I
5P 10,13-41, 107.

; JZF 5SH4 (**2001**)4 WFIDS JTG4 DtI] IRVf4 DGMU{7FIGS ; BfSFZL o JwWFzD VG[
SBJADFZC[TF JwWGM Vef; P VDPiO, P YL; L; 4 DGMJ7FG EJG4 ; FZF08= I JGI; 8L4
ZFHSMBP

5§Z6v1 IJQFI 5µX

- 1.1 5|:TFJGF
- 1.2 VeIF; GL V{TCFI; S 5µ'E]DSF
 - 1.2.1 5FRIG ; DI DFI MU IJXGF bIF, M
 - 1.2.2 I MUGM pNÿEJ VG[IJSF;
 - 1.2.3 JT'DFG ; DI DFI MUG]DctJ
- 1.3 VeIF; DF\p5IMJDA, [FI[, VUtI GL IJEFJGFVM
 - 1.3.1 DGMU{7FIGS ;]BFSFZL
 - 1.3.2 5IZI:YITHgI v5|U8 IJST IRTF
- 1.4 DGMU{7FIGS ;]BFSFZL VG[5IZI:YITHgI v5|U8 IJST IRTF JrRGM
; AW
- 1.5 I MUGL ;]BFSFZL 5Z V; Z
- 1.6 5|:TJT VeIF; G]DctJ
- 1.7 VeIF; G]; VMHG

1.1 5F:TFIJS

VFWJGS ; NLG[HJD I; lwwVMGL ; NL U6JFDF VEFJ[K[TD TG[IRTF VG[DGMEFZGL ; NL 56 U6JFDF VEFJ[K[HgDYL X~ SZLG[Dti]5I T DF6; IRTF VG[DFGI; STF6I]ST 5IZI:YITGM ; TT VG]EJ SZTL ZC[KP DFGI; S TF6GL ; D:IF ING5]TING jI F5S AGTL HFI K[H[VT[DF6; G[DFGI; S IADFZL TZO , . HFI KP DF6; M ; 0/TF D/JJF 5FK/ VF3/L NMB D]SL ZC[F KP IJSF; 5FDTF 8]SYGM, MÒGFV I]JDFV V]S TZO DF6; [EF]TS ; D]ww 5F%T SZL K[TM ALÒ TZO DGMJ{7FIGS ;]BFSFZLGL AFATDFV T]6[5LK]C9 SZL KP gI]I MS? 5]Z; 4 , 0G4 8MSI M I; 0GL4 D]A. VG[N]GI FGFV , UEU A3F DCFGUZMDF VFWJGS ZC[6LSZ6LGFV VIEXF5 ; DM VH5M pxSZF84 IRTF VG[VIG]FHMJF D/[KP NZ N; DFYL ; FT jI IST SM. IGIÜT wI]I IJGF CFI CMI VG[EFUNMD SZ[KP 5IZ6FD[INJ; [G[INJ; [DGMZMLVMGL ; bI FDFVJWFZMY. ZÖM KP ; FY]v; FY[VF53FTGL ; bI F 56 JWL ZCL KP IRTFG[DGMJ{7FIGS ;]BFSFZL ; FY[; LWM ; AW KP JTD'FG ; DI GM DF6; IRTFI]ST 5IZI:YITDFYL ACFZ VEFJJFGM VG[DGMJ{7FIGS ;]BFSFZL D/JJFGM DFU" XMW[KP

VFHGA I]JGL H~ZLI FT VG[DFU K[S] DF6; V]JL ÖJG 5wwITGL XMW SZ] H]GFYL T[5IZI:YITHgI v5]U8IJUSTIRTFDFYL ACFZ VEFJL VG[DGMJ{7FIGS ;]BFSFZL 5F%T SZL XSP 5ZT]S]JL ÖJGX{ L V5GFJJFYL IRTDFDFYL D]ST Y. XSFI VG[DGMJ{7FIGS ;]BFSFZL 5F%T Y. XS[T[VUJ[DFGJL XMW SZL ZæM KP VFH[5FIRG ; DI YL RF, L VEFJTL K]QFVMM[V5GFJ], L I MJIS]I FVM TZO DFGJL J/L ZæM KP IRTFG[8F/JF VG[DGMJ{7FIGS ;]BFSFZL D/JJF EFZTLI ; \S'ITDFADC]QF" 5TH, LV[ATEFJ], I MUGM DFU" z]9 KP **Bhaskaran (1991)** V[VJ, MSG SI] K[S] wI FGDV DGMJ{7FIGS ;]BFSFZLG[I; lww SZJFGL 1FDTF ZC[, L KP I MUGM VY"YFI K[IRTJ]T 5Z IGI } 6 D/JJ] H]DFV DG4 VftDF VG[XZLZ 5ZGFV IGI } 6GM; DFJX YFI KP HMS[T]GM VY"V]JM GYL S] I MU ; DFHYL ACFZ U]DFDFV ZCLG[S[; }5} "

JZFuI , . G[H SZL XSFI P UCI:YVM56 I MU SZL XS[K[J/L I MU V[SM. ; 5NFI
56 GYLP JT'DFG ; DI Df\ I MU V[V§ IJ7FG KP SFZ6 TGF\ 5IZ6FDG[A3F
HM. XS[KP I MUGF IJIEgG VUM KP HJF S# 7FGIMJ4 EISTIMJ4 SDIMJ4
D+ I MJ4 , I I MJ4 C9I MJ4 ZFHI MU VG[5]6" I MJ4 UCI:YI MUG[IJ7FG U6JFG]SFZ6
ZFHI MUDFAZC[, J KP HJFA I D4 IGI D4 VF; G4 5f6FI FD4 5tI FCFZ4 wI FG4 WFZ6F VG[
; DFIWGM; DFJX YFI KP

K[, F YMOF JOFMYL ; XWWSM 5IZI:YITHgI IRITF (**State Anxiety**), 5JU8 IJST
IRITF (**Trait Anxiety**), DGMEFZ VG[DGMU{7FIGS ; JBSFZL JUZ[IJX[VeIF; M
SZJF NMZFI F KP ; XWWSM BF; SZLG[VJL ÒJG 5wWITGL XMBDA K[S# HGFYL DF6;
IRITDFYI D]ST Y. VG[DGMU{7FIGS ; JBSFZL D/JL XSP DCIOF" 5TH, L 5IT5FINT
VQ8FU I MUGM 5Y V[ε I08V[p5I MJL Y. XSP IRITF T]DH DUHGL V:TjI :TTFG[
38F0JF DF8[I MU p5I MJL KP (**Jonrid et. al. 1988, Shamvrna & Agnihotri
1982**) I MU V[SM. DT S[; 5NFI GYL4 56 ÒJG ÒJJFGL V§ 5wWIT KP (**Swami
Karmananda Sarasvati 1982**) HGFYL DF+ XFZLIZS :J:YTF GCI\ 56
DGMU{7FIGS ; JBSFZL JW[K[T]DH DFGI; S XFVITGL VG[E]T Y. XS[KP

ÒJGDA DMBFEFUGL ; D:I FVM V[DGGA VI:YZ56FG[SFZ6[YFI KP 5; N
SZ, F I MUFelF; YL DFGI; S HFU'IT4 ; HGFtDS XIST VG[XLBJFGL 1FDTFDAJWFZM
YFI KP (**Swami Muktanand Sarashvati 1982**). VFD4 JT'DFG I MU V[DF+
ZC:I DI IJnf G ZC]TF IRIST; F 5wWIT TZLS[56 VI:TtJ WZFJ[KP

DF6; GL 5IZI:YITHgI 5JU8 IJSTIRITF VG[DGMU{7FIGS ; JBSFZL 5Z
I MJGL V; Z YFI K[S[S]D m TGL HF6SFZL D/JJF DF8[5]:T]T VeIF; CFY WZJFDA
VFjIMCTMP

1.2 VeIF; GL V[TCFI; S 5J'E]DSF

1.2.1 5fRLG ; DI Df\ I MU IJX[GF bIF, MP

I MU V[EFZTDA VIT 5ZF6SF/YL RF, L VFJTL VFwIFitDS TPDH XFZLIZS
VG[DFGI; S :JF:yI DF8[GL 5[6F, L KP TtJ7FGDA cI MUc V[V\$ DCtJ5[6"XaN KP
VFH[DM8FEFUGF\ I MU SZTF jI ISTVM VF; G4 5[6FI FD4 S; ZTM H[UL XFZLIZS
VVUEULVMTPDH wIFG 5Z S[gaSZ6 SZ[K# HMS[H[, MSM I MUGM p0F6DAVeIF;
SZ[K[T[I MUG\ 5Z5ZFUT DCtJ ; DH[KP

cI MUc XaN V[d]H c3FT] 5ZYL pTZL VFjI M KP H[GM VY" HMDJ\ V[UM YFI KP
V[B, [S# VFtDFG\ 5ZDFtDF ; FY[G\ HMDF6 V[B, [I MUP T[YL H DCIOF" jIF; I MUGM
VY" c ; DFIWc SZ[KP V[B, [S# :JR[TGFGA D[bI Sga 5ZDR[TgI 5[E]GL ; FY[V\$
Y. HJP

cI MUNX'GcGA 5[6[TF DCIOF" 5TH, L cI MUc XaN GM VY" IRTJ'IT IGZMW V[UM SZ[
KP T[YL VF56[SCL XSLV[S# jI IST 5MTFGL IRTJ'ITVMG\ IGI [+6 SZLG[5MTFGL
Ö'NULG\ IGI [+6 VF5D/[SZL XS[T[I MU KP IGI [+6 V[cI MUc GM DCtJGM XaN
K# H[DA VFtDF4 DG VG[XZLZ 5ZGF\ IGI [+6 GM ; DFJX YFI KP

HG VFRFIMGF DT[cc H[; FWGFYL DMIFGL 5F1%T YFI K# T[I MU KP cc

I MULzL VZIJNGF\ DT[cc 5ZDFtDFGL ; FY[V\$LSZ6GL 5F1%T SZJL T[I MUG\
:J~5 KP cc

I MU V[DGG\ 5yYSZ6 K# VG[T[YL VFwIFitDS HUTG\ R6TZSFD KP
SD'5ZF6DAZFHI MU IJX[; \1F%TDA\NXF"JTF H6FJ[, K[S# I MUGFA[IJEFU KP

(1) I MU

(2) DCFI MU

(1) I MU ov

H[DA 5MTFGA VFtDFG\ XgI ~5[VG[IGU]6~5[wIFG SZJFDA VFJ[K[tIFZ[TG[
I MU SC[JFDA VFJ[KP

(2) DCFI MU ov

H[DFA VFtDFG[VFGN5)64 ; JNMDF ZICT4 VG[. `JZYL VIEgG HMJDFAVFJ[
K# tI FZ[TG[DCFI MU SCJDFAVFJ[KP VF DCFI MU ; JMFR K[VG[TG[H ZFHI MU
TZLS[VM/BJDFAVFJ[KP ZFHI MUDFA VF9 VUMGM ; DFJX YFI K# VFYL TG[
VQ8FU I MU TZLS[56 VM/BJDFAVFJ[KP VQ8FU I MUGFA VF9 VUM GLR[5DF6[KP

- (1) I D
- (2) IGI D
- (3) VF; G
- (4) 5f6FI FD
- (5) 5tI FCFZ
- (6) 3FZ6F
- (7) wI FG
- (8) ; DFIW

1 I D

; tI 4 VIC\ F4 V: T[4 Aji RI " VG[V5IZU[C VF 5FR I D KP HGL ; DHIT
VF 5DF6[KP

(A) ; tI

H[U] HMI] VG[HF^I] CMI T[U] H X]w EFJ DGDA CMUM VG[TG[VG]-5 H
JF6L VG[SD" CMI TG[; tI SCJFI KP SM. G[N]B 5CMR[V[U]L JF6L G AM, JL T[D]H
V[U]L JF6LGM p5I MU SZJM H[NZS 5f6LGF ICTDFA CMI P

(B) VIC\ F

VIC\ FGM VY" K# SM. 56 5f6LG[DG4JF6L TYF SDYL SM. 56 5SFZG] N]B G
5CMRF0J] DCIQF" jI F; SC[K[S# SM. INJ; SM. 56 5fI6GL IC\ F G SZJL4 DGYL
TYF SDYL SM. G] BZFA G . rKJ# SOJ]G AM, J]T[VIC\ F KP

(C) V: T[

V:T| GM VY" YFI K# RMZL G SZJLP ALHFGL J:T] 5]KIF JUZ , [JL4 T|DH
ALHFG[K|TZLG[T|GL J:T] , [JL V|B, [S# VgI GL J:T]U|C6 9UF. YL SZJ\T|V:T|
sRMZLf KP DGYL 56 ALHFGL J:T] , [JFGL , F, R SZJL T|RMZL KP I MUL5]-QF| 5MTFGL
5F; [H| S\ K|T|GFYL ; \TMOF DFGJM HM. VP

(D) A|i RI "

SFDJF; GFG| pT|HT SZGFZ BFGv5FG4 xIM zJ64 z'UFZ JUZGM tiFU
SZLG|JLI'GL Z1FF SZTF ZC|J\ T| A|i RI " KP A|i RFZLV| VFGFYL ARLG| 5MTFGL
. g#LVM 5Z ÒT D|J|L HM. VP DGYL 56 IJSEZ ZICT ZC|J\ HM. VP SFDJF; GF
XZLZG|XISTICG SZL N|KP

(E) V5IZU|C

V5IZU|CGM VY" YFI K# ; U|CJ|ITGM VEFJP J6HMTL J:T]GM ; U|C G SZJM
HM. VP ÒJG ÒJJF DF8[H|B, L J:T]H~ZL CMI T|B, L H ZFBJL4 SFZ6 JW] J:T]GF
; U|C DF8|H j|IST BMBF SFI M SZJF 5|ZFI K|VG|JWFZ| EFUNMO SZ|K|VG| IR|TF
VG|DGMEFZGM EMU AG|KP

(2) IGI D

; FR4 ; \TMOF4 T54 :JFwI FI 4 . `JZ 5|6WFG4 VF 5FR IGI D KP

(3) VF; G

I:YZ VG| ;]B5]J'S H|D|A| L XSFI T|G| VF; G SC| KP VF; G SZJFYL
XFZLIZS VG|DFGI; S :JF:yI ; F~ ZC|KP

(4) 5f6FI FD

5f6JFI]GM XZLZDF\ 5|J|X YJM V|`JF; VG|`JF; ACFZ GLS/JM T|5|JF; KP
VF AgG|UITVMGM IJrK|N YJM VYF"Y` `JF; v5|JF; IS|F A|B YJL V|5f6FI FDG|
; FDFgI , 1f6 KP BZ|BZ 5f6JFI]GL IS|FG|IGI \+ 6V|5f6FI FD KP

(5) 5|tI FCFZ

. gǎLI MGL AFÖJITG[; DßLG[DGDA IJI, G SZJFGA\ VeIF; G[5tIFCFZ SC[KP DGGL ; FY[A3L . gǎLI M : JFEFIJS ~5DAZC# JT'DFGDA\ZC# VDA SM. IJSIT G VFJ[VG[TGF äZF A]wWYL IJRFZ SZLG[SFI MGM pIRT~5YL p5I MU SZJM

(6) WFZ6F

JITDF+YL SM. : YFG IJXDFDA\IRTG[AFWJ\T[G[WFZ6F SCJFI KP

(7) wIFG

HDA\WFZ6FSZ[, K# T[INXFDA\wI [I IJQFI S7FGGL VßTFGF ; εX 5JFCG[wIFG SCJFI KP

(8) ; DFWL

HI FZ[wIFGDASJ / wI [I DF+GL H 5|TIT YFI K[VG[IRTG\IGH : J~5 X]I Y. HFI K[tIFZ[T[H swIFG Hf ; DFIW Y. HFI KP

VF VF9I VUM; FWGFGA\ DFU" DF8[VG[TtJ7FG TYF TtJFGJE]T VFIN prREFJMGL 5FI%TDA\ ; CFI S CMJFGL ; FY[XFZLIZS VG[DFGI; S :J:YTF VF5GFZ CMJFYL 56 T[B]A H VUtIG)KP

VFD4 I MU V[Vß ; U9G K# VG[T[DG VG[XZLZG\ ; U9G K# I MU V[5IJ+ VFRZ6 K[S# H[DG VG[XZLZGF HMOF6 5Z J3]EFZ Dß[K# TDA\wIFG4 5F6FI D TPDH IJIJW VF; GMGM ; DFJX YFI KP I MU V[5,000 JQF" HJGL 5ßI8; K# S[H[5FRLG EFZTDA\X~ Y. CTLP VtIFZ[T[5FüFT IJ7FG äZF ; FZL VJL VM/B 5FD[, K[VG[DFGI; S ;]BFSFZL VG[DFGI; S VFZMuI DA JIwW SZJFGA\ ; FWG TZLS[JWfZ[p5I MU DA\, JFI KP

1.2.2 I MUGMpNÿEJ VG[IJSF;

I MUGMpNÿEJ , UEU 5,000 JQF" 5C[, F YI M CTM I MUGM IJSF; WLD[wLD[OST EFZTDA\ H GIC4 5ZAT] VFBL N]IGI FDA\ 5FRLG ; TM äZF YI M CTMP HM S[tIFZ AFN TDA\ ; FDFÖS IJRFZ; Z6L VG[WFIDS EFOFFVM VG]; FZ ; JWfZ6F SZJFDF VFjI FP

EFZTDF\DMC\HMINOM VG[C0%5F ; \S'IT VUJ[YI[, F ; \XWGMDF\ 5F%T YI[, F
VJXQ\FMDF\56 HNUF D?I \CT\ S# jI IST 5FRLG I MUGF\ VUJEU\ 5DF6[A9[, L D/L
VFJL CTLP VF A3F ; \XWGM NXF"J[K[S# EFZTDF\ I MUJL X~VFT V[VFI"; \S'ITGF\
pNÿEJ 5C[, F YI[, L CTLP

1.2.2.1 I MU VG[JN

JNM G[H I MU IJXGL DFICTL VF5GFZ 5YD XF: + TZLS[DGFI KP JNDA
36L HuI FV[cI MUc XaNGM IGN\X SZJFDF\ VFjI M KP BF; SZLG[kuJNDF\ 5Z\T]V[
ALÒ 5IZEFOFFGL ; ZBFD6LDF\ TGM VY"V:508 KP

1.2.2.2 I MU VG[p5IGQFN

jI ISTGL ;]BFSFZL4 H~IZI FTM VFTIZS XFVT VG[AFð XFVT V[DFGJ
ÒJGGF\ DctJGF\ , 1I M KP IJ7FG VG[8SÿGM, MÒ V[J{7FIGS ZLT[SFI "SZ[KP
TJL H ZLT[p5IGQFN V[VFWI FITDS sWFI DS'f ZLT[SFI "SZ[KP p5IGQFNDAÒJGG
;]BFSFZL VG[ALÒ H~IZI FTMG[ALÒ SM. EF\TS ;]BFSFZL SZTF V, U TFZJLG[
ÒJG ÒJJFGM DFU" ; RJ[KP I MU S# HGF DY p5IGQFNDA K[T[56 ÒJGG[
RIZTFY"SZJFGL 5wWIT NXF"J[KP p5IGQFNGM VIT VUtI GM ; N\XM V[OST I MU
âZF H HF6L XSFI P

1.2.2.3 I MU VG[EUJTULTF

DCFEFZTGM DpI EFU V[700 ` , MSGL SIJTF K# HG[VF56[EUJTULTF
TZLS[VM/BLV[KLV P H[, MSM I MUGF\ DFU' J?I F K[T\MMGF\ DF8[V[5Z6F VG[
DFUNX'GGF\ 5ZJ9F ; DFG KP

EUJTULTFDA H VF56[HM. XSLV[KLV[S# JF:TJDF\ I MU V[A3L H
jI ISTVM DF8[KP EUJTULTFDA jI ISTG[ÒJG NZdi FG H I MUJL 5S8L; DF8[5Z6F
VF5JFDF\ VFJL K# GIC S# jI IST HJFANFZLDFYL IGJT YI F AFNP EUJTULTFDA
I MUJ\ DctJ ; DHEJTF Sö\ K[S#

- ✓ I MU áFZF SFI "FDTF 5F%T YFI KP
- ✓ DMFG[5F%T SZJFG\AFÖ7FG S# H[I MU áFZF 5F%T YFI T[GL H~Z
CMI KP
- ✓ I MU V[VI; wW J:T]G[I; wW SZJFG\DFwI D KP
- ✓ I MU VFtDFG[X]wW SZ[KP
- ✓ VI:YZ DGG[I MU áFZF IGI V+T SZL XSFI KP

1.2.2.4 NX'GXF: + D]HA I MU

5TH, L I MUNX'G D]HA I MUNX'G V[IRTJ'ITG\ IGI V+6 KP IRTJ'IT 5FR
5\$FZGL CMI KP HIFZ[AWL H . gáLIMIGI V+T YFI tIFZ[DG 56 56"ZLT[IGI V+T
YFI KP

I MU ; }+SFZ I MUG[A[:J~5DF\NXF'J[KP

1 AFÖI MU &

2 VFVZIMU

AFÖI MU V[XFZLIZS VFZMUI D\ J'wW SZ[K# HIFZ[VFVZIMU VFVZIS
DFGI; S :JF:yI D\ J'wW SZ[KP HIF;]ML XZLZG\ AFÖ S[VFVZIS VUM; FZL ZLT[
:J:Y G CMI tIF;]ML SM. 56 5JIT ; FZL ZLT[SZL XSFTL GYLP DG VG[XZLZ AgG[
V\$ALHF ; FY[B]A GÖSYL HMOFI [, F KP DM8FEFUGF ZMUG\ SFZ6 56 XZLZ áFZF
VIGI IDT VG[V56"ZLT[ACFZ YTF GSFDF SRZF H]F S# 5XFA VG[D/tIFU
CMI KP I MUGL S; ZTM XZLZG\ VFJF IAGH~ZL SRZFG[XZLZDFYL ACFZ SF-JFDF
; CFI ~5 AG[K[VG[XZLZG[; 56"ZLT[TNZ:T ZFB[KP

I MU áFZF XZLZG\ VFVZIS VUMG[5ZTF 5]DF6DAS; ZT D/[K[VG[jI IST
; F~ VFZMUI HF/JL XS[K# T]DH T]G\ VFI]I D\ 56 JWfZM YFI K# H[jI ISTGL
DFGI; S ;]BFSFZLDF\ JWfZM SZ[KP

1.2.3 JT'DFG ; DI Df\ I MUG\ DCtJ

I MJV[JT'DFG ; DI Df\ ACJRIR'T IJQFI KP ; DFHGf , UEU AWF H JUMV[I MUGf VefF; Df\~IR , LWL KP IJIEgG JU'Gf , MSM afZF IEgGvIEgG εI08SM6YL ~RL , [JL VG[5MTFGL ZLTYL VF IJQFI GM IJRfZ 5]; TJT SZJFG[SfZ6[I MUG\ VFW]IGS :J~5 BJA H jI f5S AGL UI\ KP 5FK, F S8, FI JQFMDF I MU 5MTFGf Df+ EFZTLI :J~5YL CZLG[VfTZZf08εI TF TZ04 jI ISTUT ; FWGF Df+YL CZLGf jI f5S ; DFH 5ZS p5I MULTFGL TZ0 VG[Vfwi FItDSTfYL CZLG[J{7FIGSTf TZ0 VU]; Z YTM HFf KP VFHGM ACJRIR'T I MU 5MTFGf 5fRLG VF5IGQFINS :J~5YL IEgG KP JT'DFG ; DI Df\ ; DFHDF I MUGM GLR[D]HAGf εf08SM6M DF8[VefF; Y. ZÖM KP

1. I MUGM DFGI; S T6fJ4 IR\TF N\ SZJFGf ~5Df\ VefF; P
2. I MUGM DFGI; S 1fMEHgI TYF DGM\CS ZMUMDF IRISf; FY[VefF; P
3. I MUGM XFZLIZS ZMUM N\ SZJFGf ~5Df\ VefF; P
4. I MUGM XZLZ IX1FF TYF XZLZ ; fQ9J 5IZWFGFY[5I MUP
5. SI FZS VfwI FItDS IJSF; Gf\ C[T] DF8[I MUFefF; P

VFD4 ; DFfGI ZLT[HM. V[TM I MUG\ DCtJ GLR[GL ZLT[; DÖ XSFI P

1.2.3.1 I MUG\ XFZLIZS εI08V[DCtJ

JT'DFG ; DI Df\ XFZLIZS :Jf:yI HF/JJf VG[IRISf; F IJ7FGGf ~5Df\ I MUGM JWFZ[p5I MU SZJFDf VFJ[KP VFYL H I MU 5Z SZJFDf VFJTF VIWSfX J{7FIGS XM3GF SFI MGM pN\kI 56 I MUFefF; Gf\ S]I FXZLZ TYF IRISf; LI 5|EFJMG\; S, G SI] KP JT'DFG ; DI Df\ **Endrorinological** (V\to: +fJL U\NYG[, UT) **Metabolic**, sRI f5RI GLIS|I ff **Neuro physiologic** sDUHGL XFZLIZSf VG[**Psychological** sDGMJ{7FIGSf 5|EFJMG[HF6JFGf C[TYL ; XMWGM SZJFDf VFJ[KP TFH[TZDFH YI[, F VefF; M 5ZYL V\] TFZ6 GLS?I\ K[Sf I MUF; GM 5f6FI FD4 Df\

TYF wIFG IGI IDT SZJFYL XZLZ 5Z jIF5S 5DF6DA, FENFI L V; Z YFI K[TDH
XFZLZS SFI "FDTFDA JWFZM Y. XS[KP VF; GM VG[5F6FI FDGL IJIX08
VJ:YFVMDA XZLZGA H[T[VUUMDAZST; RFZGL 5[S]I F TLJ]Y. HFI K[H[GFYL T[
VUUMG\ 5[GJ"; G Y. HFI KP H[DS[; JFUJ; GGL VJ:YFDA YF. ZMD V[To: +FJL
U]YDA VIWS ZST; RFZ (**Blood Circulation**) YJF , FU[KP 5IZ6FD[YF. ZMDU\MLG
SFI "FDTF JWL HFI KP VF H ZLT[XLQFF"; GDA DI:T0SDAZST ; VCG JWL HFI KP

VF p5ZFT VD[S VF; G4 D[FA IS]I FGA VeIF; YL XZLZGA VF+4 J'P VFIN
VUUMGL V[ATIZS DFI, X Y. HFI KP **B.P.** 5Z 56 5[EFJ 50[K[p5ZAT
Relaxation VG[**Feed Back** 5[EFJ 56 ; 5gG YFI K[H[GFYL T[VUUMGL SFI "FDTF
J3[KP

1.2.3.2 I MUG\ DGMJ{7FIGS sDFGI; S VFZMuI GL εI08V[f DctJ

5TH, L I MU; }+ V[; FYL JW] 5wwIT; ZG\ VG[5DF6E]T ; FICTI KP
5TH, LGF 5YD A[; }+M D]HA I MUGM D]I C[T] V[DGGLJ'ITG[IGI +6DA ZFBL
DGGL IX:TTF HF/JJFGM KP J'ITVMG[VG[E]TGM 5FI M CMI K[VG[T]YL H JT'G
TZOGL VFW]GS VG[E]TGM VIEUD V[I MUS DGMJ7FGGA 5FRIG ; FICTI DA
; FZL ZLT[ZRFI], bIF, KP J'ITVM HIFZ[N]I JL , FEM; FY[; S/FI], CMI ti FZ[T]
N]B VG[5LOFGM: +MT AG[K[H[G[S, L08F s N]BNFI L JIT f SC[KP AL0AFH] T[G]
CSFZfDS VG[Vwi FtD, 1FL AGFJLG[VS, L08F V[β, [S[;]BNFI L AGFJL XSFI 4
J'ITVMG\IGI +6 SZJFGM BZM C[T] V[SI, 08F J'ITG[VSI, 08F J'ITDA ~5FTZ SZJF
DF8[KP H[Gf DF8[I MU V[5[8L; 4 JZFuI VG[IJZST jI JCFZG[; RJ[KP SI, 08F
:J~5GL DFGI; S ;]WFZGL VG[E]T V[N]B TZO NMZL HFI KP I MJDGMJ7FGV[
VFJL D]/E]T 5FR **Distress** G\ J6G SZ[K[S[H[5RS, ; TZLS[HF6LT\ KP T[
GSFZfDS IJRFZM VI:DTF4 ZFU s, F, ; ff4 a]DF VG[D'tI]GM 0Z KP 5TH, LV[
S, ; GL IJ:TT RRF"SZL K[VG[T[AFAT 5Z EFZ D]SI M K[S] GSFZfDS IJRFZM V[
N]BGF\ D}/DA ZC[, F KP SFZ64 GSFZfDS IJRFZM VF56F IJRFZM VG[

SFI MG[BMBL INXF ; RJ[K[VG[HGA SFZ6[jI IST EFITS ; BM BZXL4 ; TF VG[ISITG[; BGA Dbi : +MTMTZLS[IJRFZ[K[VG[TGL 5FK/ 5FU, AG[K[VG[VTDA DGMEFZ4 NpB VG[I FTGFYL 5LOFI KP I MU 5DF6[; FR] ; B V[VFGN DF6JFGF JWJG[JW] ; FWGM CMI TDA GYL4 5ZT] DGGL VFTIZS I:YIT S[H[I MU ; FWGF äZF VG[EJFI K[TDA ZC[, L KP I MU DGMJ 7FGGM J{7FIGS 5FI M ; DHJF DF8[TG] DCtJ VFW]GS : +L4 5]-QF VG[; DFH DF8[RRL"XSFI KP H[A[DNÿFDA KP

1. I MU DGMJ{7FIGSTFG[5FI FGF IJ 7FG TZLS[

2. I MU DGMJ 7FG V[p5I MUTFGF IJ 7FG TZLS[

I MU V[DUHG] IJ 7FG K[I MUGA IJ JW VUM I D4 IGI D4 VF; G4 5f6FI FD4 5tI FCFZ4 WFZ6F4 wI FG VG[; DFIW JUZGM DG 5Z V[RMSS; 5]EFJ 50[K[HGFYL DFGI; S ; T], G TDH DFGI; S :JF:yI H/JFI KP

I MU SZTL jI ISTVNGA DT D]HA VFZMuI V[, [ZMUD]ST XZLZ H GIC4 56 XZLZ4 DG VG[VftDF 56 TGL ; FY[HMOFI[, KP I MU V[DGMEFZ I]ST 5IZI:YITDA 5]6"XFZLIZS4 DFGI; S VG[; FDFHS ;]BFSFZL V5[K[N]GI FGF IJS; LT ; DFHDA JWTL HTL DFGI; S VFZMuI GL ; D: I F V[D]bi tJ[VFZMuI GF VfwI FtDS 5F; FVMGL VJU6GFG[, LW[VG[:JT+ ÖJGX[, LG[SFZ6[YFI KP I MUGL S; ZTM V[DFGI; S R5/TF D/JJFDA ; CFI SZ[KP I MUIS] FDA V]L 1FDTF ZC[, L K[S[HGA äZF ; D: I FGA IGZFSZ6 DF8[GL ; HFUTF VG[XIST 5F%T YFI KP VDI FINT 5]DF6DA XIST J5ZFI[, L CMUF KTA I MU äZF jI IST pt; FCGL , FU6L VG[EJ[KP I MU V[DGMJ{7FIGS ;]BFSFZL DF8[G] 5IZA/ 5]- 5F0[KP

1.2.3.3 DFGI; S VFZMuI G] DMO[,

5LOFGM ; FDGM SZJM VG[CFSZFtDS , FU6L IJS; FJJL V[DFGI; S VFZMuI VG[;]BFSFZLG] UE" KP I MUS ; FICTI DA TG[VFXIST VG[VGFXISTGFAJZFuI GA DMO[, GA VFWFZ[; DHFjI] KP (C.F. Bhushan,1994) VFXIST VYFT HFUTTFGA

IJ:TFZG[; S]IRT SZJ] VFXF ; FYG] VFSQF"6 VG[SM. J:T] S[jI IST TZOGF
VCSFZGM; DFJX V] , [VFXISTP T[jI ISTG[ZFU4 äDF VG[VCSFZ TZO NMZL HFI
K] S[H[JFZJFZ V; Z1FF4 5]TQ9FGL prRL H~ZLI FT4 DF, LSL56] IRTF T]DH
N]DGFJ8 TZO NMZL HFI KP 5IZ6FD[DGMEFZ VG[N]BMYL 5LOFI KP ALÒ AFH]
JZFuI V[N]gI JL4 EF]TS ;]BMS[jI ISTUT ; AWM 5Z VFWFIZT G CMJ] HMS[; FDFgI
jI IST DF8[VF I; wW SZJ]D]S[, KP ; FDFgI , MSM I MUGM p5I MU ÒJGGL U]JTF
;]WFZJF S[XFZLIZS VG[DFGI; S ;]BFSFZL D/]JJF DF8[SZ[KP

jI IST S[H[VGFXISTDF\ prR CMI T[VF AWL H OZHM IGEFJ[K[VG[
HJFANFZL , [KP T[SM. 56 HFTGL VFXF JUZ VF SFI M'SZ[K[VG[SD" MUL TZLS]GFA
VFGNGL VG]E]T SZ[K[VG[SM. 56 I:YITDF;]B VG[;]TMDF VG]E]J[KP

1.2.3.4 I MU IJ7FG TZLS[

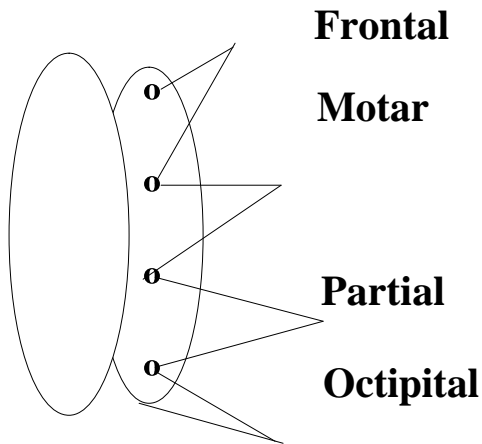
JTDFG ; DI DF\ I MUG[WD"SZTF JWFZ[IJ 7FG TZLS[; DHJFDF VEF] KP I MU
V[IJ 7FG VG[S/F AgG[K] I MU V[IJ 7FG V] , F DF8[K]S] T]GFA 5IZ6FDGL BAZ
50[KP SZMOM , MSM äZF CHEZM JOFMYL 5]S]8; SZFI KP T]GL RMSS; S; ZT4 VF; GMM
5]6FI FD VG[wI FGGL 5wWITGFA 5IZ6FDGL VFUFCL SZL XSFI KP I MU S/F V] , [K]
S] AWL H jI ISTVM 5MTFGL ZLT[T]GL 5]S]8L; SZ[K] I MUGL S; ZT IGI V+T VG[
V]SFU]TFYL SZFI KP

I MUG] DGMJ 7FG V[CSFZf]DS VG[5]DF6E]T IJ 7FG KP T[OST DFGJ IJSF;
VG[jI ISTtJG]H 5yYSZ6 SZT]GYL4 5ZT]wI [I G[I; wW SZJF DF8]GL VFNX"5wWIT
NXF"]K] OM. 0 äZF NXF"] , DUHGFA H]NFvH]NF 5F; FVM S] H[HFUT4 VHFUT S]
VWHFUT CMI K] T]G[56 CHEZM JOF"5C], F I MU äZF ; DY" V5FI ,]KP V[56
NXF"]I]K[S] VF56F DGGM DMBFEFUGM 5]N]X S] H[;] ;]T K] HG[VF56[pOL
IGäF SCLV[KL V[T]GFYL VFU/ HTF RMY] 5UIYI]V[HFUT DGGL 56 ACFZG] KP
HI FZ[DG V[; FWGFGL VF8, L prRS1FFV[5CMR[tI FZ[7FGV[OST . IgäI M 5Z
VFWFIZT GYLP

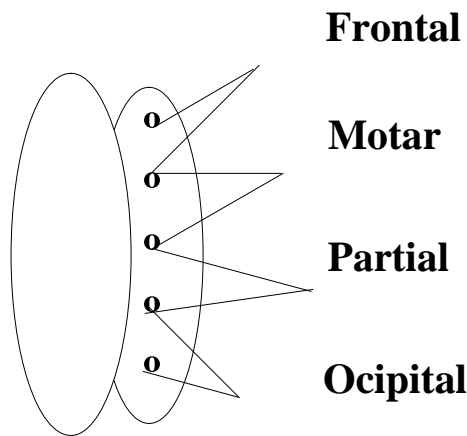
1.2.3.4.1 I MU VG[DUHG] SFI P

1FI6S wI FG NZdI FG DUHDF\ VF<OF TZUM(**Alpha wave**) GL 5J'ITDF\ JWFZM YFI K[VG[T]GL VFJxI STF 56 JW[KP

(A) Relaxed Period

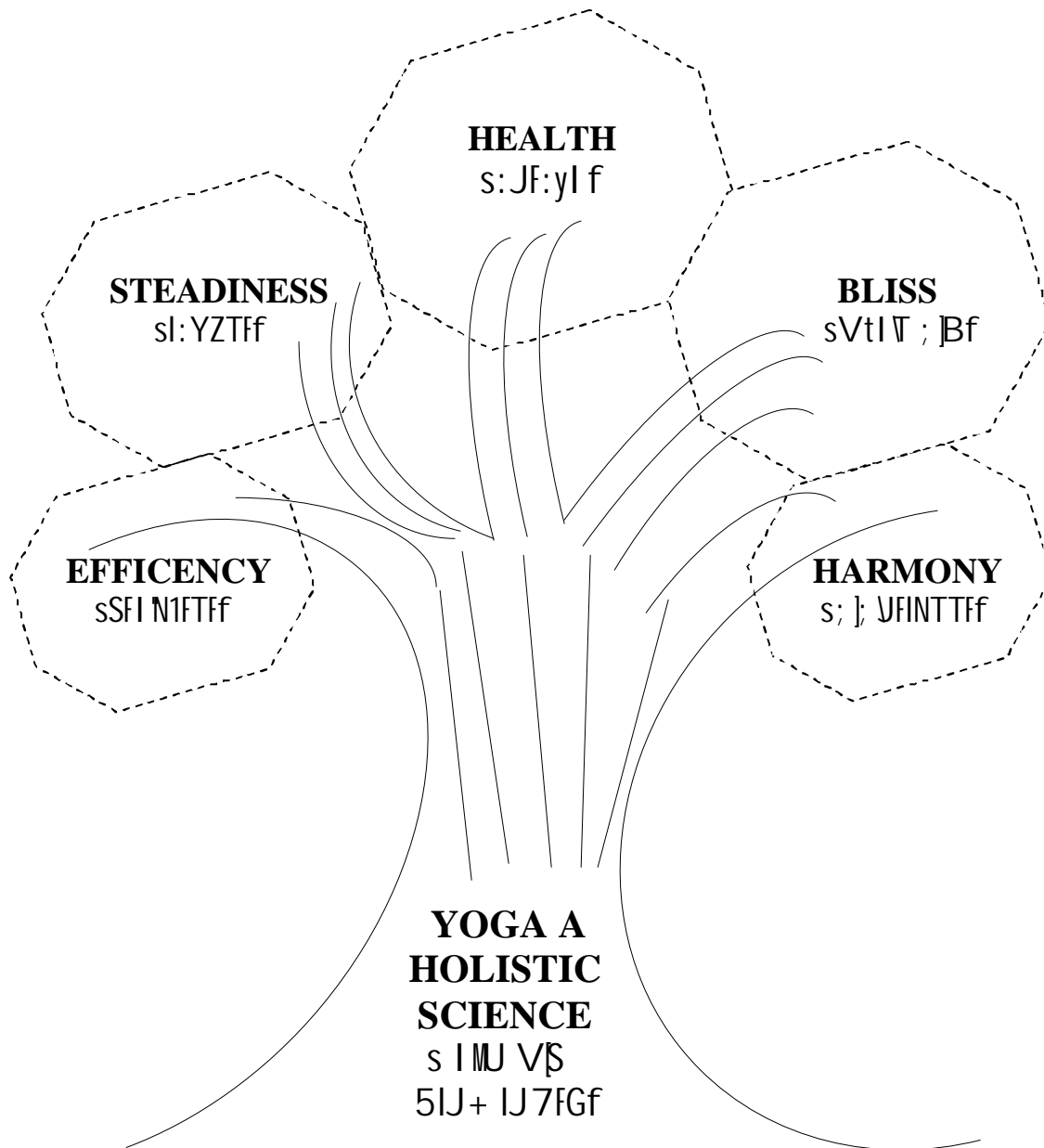


(B) Tension State



I MJF 5S]8; GZG[YTM V]S VUtI GM , FE V[K[S] T]GF äZF :GFI]MM
(Muscles) TF6D]ST AG[K] T]YL SZMOZHH]VMGL DUH TZO JCG SZTL WDGLDF\ , MCLG] 5IZE]D6 JW[KP wI FG äZF XZLZGF\ VFTIZS VUMGL V]SFU]TFDF\ JWFZM YFI KP V]SFU]TFGL 5]S]I F äZF XZLZGL SM. 56 . IgãI 5Z wI FG S]lgãT SZJFYL T[VU äZF YTF SFI'GL 1FDTDF\ JWFZM YFI KP ; FDFgI ZLT[VF56[VF VFTIZS VUMYL VHF6 CM. V[KLV]P wI FGGL 5]S]I F äZF XZLZGF\ VNZ ;]MLGF AWF H VUMVG[VJI JMI:YZ AG[KP

1.2.3.4.2 I MU ÒJG ÒJJFG\5FI FGF 5IJ+ IJ7FG TZLS[



I MU äFZF VFW]GS I JUGL AWL H H~ZLI FTM ; ¶MDFFI KP H¶L S¶ VFZM¶I 4
SFI N1FTF4 I:YZTF4 ; } VFINTTF VG[VtI ¶ ; }B¶

20 DL ; NLDF\ IJ7FG V[ÒJG ÒJJFG\ DFwI D K¶ KTF\VF56FDFYL
DNBFEFUGF , MSM IJ7FGG[OST I ¶M VG[I FN+S ; FWGMGL N]GI F H DFG[K¶ EFuI [H
SM. , MSM ÒJG ÒJJFG\IJ7FG DFG[K¶

ÖJGG\ V§ TtJ 7FG S[H# V§ jI IST DF8[; F~ CMI T[VFBF ; DFH DF8[56
; F~ ; FIAT Y. XS[VG[ALHF jI IST S[; DFHG[5Z6FNFI L AGL XSP jI IST ; DFHGL
JrR[H ÒJ[K[VG[DtI] 5FD[KP ; DFHV[56 IJ JW DFGJL~5L VUM äZF AG[KP
; FDFÖS ; D: I FG\ IGZFSZ6 V[jI ISTGL VFTIZS ; DH äZF H XSI AG[K# VG[V[
tI FZ[H XSI AG[HI FZ[jI IST 5MTFGL V5j". rKFVM VG[, FU6LVM JrR[V§I
; FW[VG[; DFHG\ ICT . rKP I MU V[XaN K[S# H[jI ISTG[V[UL ÒJGX, L TZO NMZL
HFI K[S# H[D# jI IST 5MTFG# : JS[gãT bIF, 4 , FU6L JUZ[D#YL ACfZ VFJL VG[
; DFHGA DFGJ ; 5NFI ; FY[TF, D[; FWP I MUDA jI ISTGL XFZLIZS4 AF[wWS VG[
, FU6LI §T I: YITGL IJRFZ6F YFI K[VG[: JD}I FSG DF8[GL V§ I MU I 5wWIT I MU
äZF 5ZL 5F0JFDF\ VFJ[KP HI8, ; DI D# VF56L , FU6LVM VF56F JTGG[IGI V+T
SZ[KP I MU TFI, D äZF

- (1) VF56L , FU6L 5wWIT; Z AG[K#
- (2) VF56L ; UJNGXL, TFD#JWFZMYFI KP
AF[WS S1FF

IJ 7FGGF VF JTDFG I JUD# prR A[wWS S1FF V[E6TZD# VIT VUtI GM EFU
EHJ[KP I MUJL IJIX08TF V[K[S# TGA äZF jI ISTD# SM. 56 DFICTLGA
5yYSZ6GL4 TG[V§ALHF ; FY[; AVWT SZJFGL4 VIE jI ST SZJFGL RMSS; F. JW[
KP VF56[HMI } S# I MUDA DGG[XFT ZFBJFGL VFJOTGM ; DFJX YFI KP
I MUJL ; }BFSFZL 5Z V; Z

; FDFgI , MSM S[HG[I MU ; FY[S\ H ; AW GYL T[VM IJRFZTF CX[S#
EFZTG# H 36F , MSM XF DF8[5MTFG# XZLZG[; SMRGGI I: YITD# ZFBLG[T[DH DM
äZF VJFH SZLG[, FAF ; DI ; }WL T5: JIGL D# D# A# TF CX[m VF I MUG#
pNÿEJGL V§ 5pI FT KAL K# 5ZT] VF V§ V[UL ; FDFgI DFGJTF 5FK/ V§
prR SIBLGL ; rRF. ZC[L K[S# HGA äZF DFGI; S ; }BFSFZL VG[5ZD XFTGM

VGJEJ YFI K# I MU V[D\ ; \ST XaN d]Hc DFYL pt5gG YI[, KP H[GM VY"
HMOJ\ S[; FY[RF, J\ T\JM YFI KP I MU V[5wWIT; Z ZLT[DG4 , FU6L4 XZLZ VG[
VFtDFG[V\$ALHF ; FY[HMO[KP :JFDL ZFD V[I MUG[V\JF 5| tG TZLS[NXFJ] K[S#
H[DFGJÒJGGF +6 5F; F XFZLIZS 5F; F4 ; FDFIHS 5F; F VG[VFtDLI 5F; F ; FY[
; AIWT KP I MUG\ TtJ7FG V[ÒJGGF IJlJW 5F; FVMD\; VFINTF ; FWJFG\XLBjJ
KP V\$ JBt DG VG[XZLZ HMOFI HFI4 V\$I :Y5FI HFI TM XFNT VGJEJFI K#
VG[AWL H S1FFV[5ZD ;]BGM VGJEJ YFI KP

HFIT4 pDZ VG[XFZLIZS I:YITGF ENEFJ JUZ SM. 56 jI IST I MUGL
5\$18; SZL XSP H[jI IST IGI IDT I MU SZJFGL . rKF XIST WZFJTL CMI T[6[
5wWIT; ZGL TFI, D , \JL HM. V\ I MU V[p5RFZGL 5wWIT GYL4 T[5IJ+ ZLT[
ÒJJFG\IJ7FG K[S# H[D\VFZM\I DF8[XFNTGL , F1FI6STF p5Z DctJ NXFJFI KP
I MUGL IGI IDT 5\$18; YL DGGL IG5]6TF4 , FU6LGLI:YZTF4 N]IGIF VG[
JF:TIJSTFGL ; DH T\DH VF56L NLW%108G[IJ:TT SZL XSFI KP I MU V[DF+
XFZLIZS S; ZT S[VFZM\I D\ J'wW H GYL4 T[XZLZ 5KLGL I:YIT K# VG[T[GF äZFZ
DG ;]3L 5CMRL XSFI KP I MUGL I M\I 5\$8L; äZFZ XZLZGF NZ\$ VUG[B\A H
VFZFD D/[K# `JF; p5Z IGI \+6 ZFBjFYL DG p5Z IG5]6TF D/\JL XSFI KP
DUHG\ SMDFMG\ ; FZF SFI " DF8[I MU DctJGM EFU EHJ[KP I MU V[JF:TIJSTFGL
XMW DF8[G\ V\$ X: + KP

1.3 VeIF; D\p5IMJDF\ , \JFI[, VUtI GL IJEFJGFVM

1.3.1 DGMJ{7FIGS ;]BFSFZL

JTDFG ; DI D\ ; eI ; DFHGL D\XS[, L V[K[S# , MSG\ÒJG WMZ6 prR]
VFjI\ K# 5ZT]DGMJ{7FIGS ;]BFSFZLG\5[Df6 38T\HFI KP XFZLIZS :JF:yI IJX[
TM Df6; M HFUT CMI K# 5ZT]DFGI; S :JF:yI IJX[V\B, L HFUTTF CMTL GYLP
BZ\BZ HM. V[TM H\JL ZLT[jI IST DF8[XFZLIZS :JF:yI HF/JJ]H~ZL K# T\JL H

ZLT[DFGI; S :JF:yI HF/JJ] 56 H~ZL KP DFGI; S :JF:yI VØ, [DFGJLG] HUT
; FY[TÐH 5MTFGF ; FY[G] JW] V; ZSFZS VG[Z; 5N ; DFI MHGP

IRIS; F1F[+; XMWG SZTF ; XMWSM VG[J{7FIGSM DF8[SIF 5IZA/M
DGMJ{7FIGS ; }BFSFZLDF\ VUtI GM EFU EHJ[K[m T[Z; GM IJQFI KP XFZLIZS4
DFGI; S VG[; FDFIHS :JF:yI GF ; \ MHGG[DGMJ{7FIGS ; }BFSFZL (**Psychological
well-being**) TZLS[VM/BJFDF\ VFJ[KP

1.3.1.1 DGMJ{7FIGS ; }BFSFZLGL jI FbI FVM

Sinha (1990) H6FJ[K[S] DGMJ{7FIGS ; }BFSFZLGL jI FbI F VF5JL D]xS[,
K] DGMJ{7FIGS ; }BFSFZLV[XFZLIZS VG[DFGI; S TNZ: TL ; RJ[K[T[DGMJ{7FIGS
; }BFSFZLGL jI FbI F VF 5]DF6[VF5[KP

- (1) **" It has been taken to consist of freedom from any subjective feelings of discomfort or desirability and from any disturabance of mental functions".**

cc DFGI; S SFI 'DANB, S[jI ISTUT , FU6LVMD\ VUJOTF S[. rKFVMsDFYLF
GL :JT+DFYL ,]FI [KPcc

- (2) ; DU| ZLT[; \TMDF VYJF 5]; gGTFG[VFtD, 1fl ZLT[VG]EJJJFDF\ VFJ[K[T[G]
DGMJ{7FIGS ; }BFSFZL TZLS[VM/BJFDF\ VFJ[KP

- Bhogle (1995)

- (3) **" Psychological well-being is a some what malleable concept which is to do with people feelings about everyday life activities such feelings may range from negative mental states or psychological strains such as anxiety, depression, frustration, emotional exhaustion, unhappiness, dissatisfaction, to a state which has been identified as positive mental health."**

- Warr (1978)

DGMU{7FIGS ; }BFSFZLV[SV S VX[bIF, K[S[H]I ISTGL ZMHAZMHGL ÒJG
sÒNULF GL 5JIT IJX[GL , FU6LVM S[H]DF VJL , FU6LVM S[H]GSFZfDS DFGI; S
5IZI:YIT S[DGMU{7FIGS T6FJ HJL S[IRTF4 CTFXF4 IGZXF4 , FU6L IJD]BTF4 NpB4
V; TMDFYL DFOLG[VJL I:YITYL DFOLG[H]CSFZfDS DFGI; S :JF:yI TZLS[NXF"JFI
K[TGM; DFJX YFI KP

Campall (1980) GA DT DHA ; }BFSFZL +6 38SM , FU6L4 TF6 VG[; TMDF
; FY[; S/FI[, KP 36F ; XMWSM DGMU{7FIGS ; }BFSFZL VG[DFGI; S :JF:yI G[
V\$ALHFGF\ 5IF\ TZLS[VM/BFJ[KP DFGI; S :JF:yI GM bIF, V[ZMU4 VFSOFSLI
VG[; WWTTS bIF, SZTF\ **Who** GA IJWFI S ; }BFSFZLGF VCPJF, 5Z JW]wI FG S]gäT
SZ[KP DGMU{7FIGS ; }BFSFZLGF IGOF3S 38SM TZLS[DpI tJ[IRTFGL :Jv ZH]VFT4
IBgGTF4 CTFXF JUZ[; C, F. YL ZH]YFI K# 5ZT# DGMU{7FIGS ; }BFSFZLGF IJWFI S
38SMG\ DkI FSG SZJ\ DkS[, KP VF ; NE'DF\ **Connerse and Rogers (1976)** H6FJ[
K[S# IJS; TL V5]FFVM VG[VäxI Y. HTL V5]FFVM JrR[TOFJT 5FOJM H~ZL
KP jI IST H[DCtJSF\FFVM I; wW SZ[K[T[T[GL ; O/TFGF ; TMDF ; FY[; S/FI[, L KP
ALÒ jI IST S# H[6[5MTFGL V5]FFVM VMKL SZL GFBL CMI TPDM VGJEJ ÒJG
5tI [5LK[C9 SZJFGM CMI KP AgG[jI ISTVM H~ZLI FTGF; TMDFGL AFATDF; TP8
U6FI 4 5ZT] AgG[GL H~ZLI FTGF; TMDFG\ ; DFJXG IEgG CMI KP V; TMDFGL
AFATDF\ AgG[GF VG]EJM VMKF GMW5F+ U6FI KP AgG[GL V5]FFVM ; FY[
; S/FI[, L IGZXF VG[CTXF JrR[36M TOFJT CMI KP

Campbell et. al (1976) :50856[H6FJ[K[S# ; TMDFGL DF+FGL V; Z
VFJ]US VJ:YFVM 5Z 50[KP HM VF56[; TMDFGF AMWfDS VG[VFJ]UfDS
; DFJ[; G JrR[GM TOFJT 5FZBL XSLV[TM DGMU{7FIGS ; }BFSFZL S[DFGI; S :JF:yI GF
VeIF; DF\J'wW Y. XSP

DGMU{7FIGS ; }BFSFZLG[VftD, 1FL :JF:yI TZLS[56 VM/BJFDF\ VFJ[KP
VftD, 1FL :JF:yI 5Z YI[, F ; RGM NXFJTF **Okym and Stock(1987)** H6FJ[K[S#

v VftD, 1fl :Jf:yl VGJEJ 5Z VFWFIZT K# T[ÒJGGL J:T], 1fl 5IZI:YIT 5Z VFWFIZT GYLP

v VftD, 1fl :Jf:yl DF\JWFI S VG[IGQFWS AgG[5]SFZGL V; ZMHMF D/[KP

v VftD, 1fl :Jf:yl V[; DU], 1fl VGJEJ K# T[SM. V\$ 1f+ S[SFI 'GM VGJEJ GYLP

1.3.1.2.1 DGMJ{7FIGS ; }BFSFZLG[V; Z SZTF 5IZA/M

DGMJ{7FIGS ; }BFSFZLG[SI F 5IZA/M V; Z SZ[K[T[V\$; XMMWGGM IJQFI AGL UIM KP ; FDFgl ZLT[V]D SCL XSFI S# DGMJ{7FIGS ; }BFSFZLG[36F 5IZA/M V; Z SZL XS[KP DGMJ{7FIGS ; }BFSFZL SMG[U6FJL XSFI m T[IJRFZLV[ti FZ[36F 5IZA/M VF56L ; DIF VFJ[KP HDS# XFZLIZS TNZ:TL4 DFGI; S :Jf:yl 4 DFTtJ S[I5TtJGMVFGN4 ID+M ; FY[GL I FNUFZ 5/M JUZ[AFATM BZ[BZ DGMJ{7FIGS ; }BFSFZLG[V; Z SZ[K[m

DGMJ{7FIGS ; }BFSFZLG[36F 5IZA/M V; Z SZ[K[S#, FS 5IZA/M DGMJ{7FIGS ; }BFSFZL ; FY[; LWL ZLT[; S/FI[, F K[TM S#, FS 5IZA/M VF0STZL ZLT[DGMJ{7FIGS ; }BFSFZL ; FY[; S/FI[, F KP S#, FS 5IZA/M DGMJ{7FIGS ; }BFSFZL ; FY[UF- ZLT[; S/FI[, F K# TM S#, FS 5IZA/M VMKF ; S/FI[, F KP

Diener & Diener (1996) TYF **Myers & Diner (1995)** V[DGMJ{7FIGS ; }BFSFZLG[V; Z SZTF GLR[DHAGF\ S#, FS 5IZA/M ; RjIF KP

1.3.1.2.1 DGMJ{7FIGS ; }BFSFZLG[V; Z SZTF VUtI GF\5IZA/M

(1) jI ISTtJ (Personality)

jI ISTGL EIJQI GL DGMJ{7FIGS ; }BFSFZLGM VFWFZ TGF EJTSF/GF AGEJMV VG[5]; UM 5Z ZC[, MKP (**Diener & Lucas,1999**), S#, FS , MSM ÒJGGF\ NZ\$ 1f+[; 0/TF D[/J[K[VG[; 5j" ZLT[DGMJ{7FIGS ; }BFSFZLGL 5IZI:YITDF\ ÒJTF CMI K# HI FZ[ALHF S#, FS , MSM ÒJGDF\ ; 0/TF VG[IG00/TFVMGL JrR[N]BL ÒJG ÒJTF CMI KP jI ISTGF\ ÒJGGF\AGEJMGL DGMJ{7FIGS ; }BFSFZL 5Z DI FINT V; Z

50[KP VeIF; MYL V[U]HF6JF D?I]K[S# ÒJGDA , MBZL ÒTGFZF VG[VS:DFTGM EMU AGL V5U Y. HGFZF , MSMGL DGMU{7FIGS ; }BFSFZLDA AC] H VMKM TOFJT CMI KP (**Brickman, Coales & Janoff Budman, 1978**) Vgl ; XMSMG[56 VFJF 5IZ6FDIMYL VF`RI"YI[, }S# VFJF VFGNNFI S VG[EI FGS AGFJMGL DGMU{7FIGS ; }BFSFZL 5Z GSFZfDS V; ZM Y. G CTLP JF:TIJSTFDASB, FS 5ZEFJVMNXFJ[KI S# DGMU{7FIGS ; }BFSFZL AFCI ; HMUM 5Z GIC# 5ZT] VFTIZS 38SM 5Z VFWFIZT KP ; FZMAU, M BZLNJM S[GMSZLDA A-TL D/JJL TDA DGMU{7FIGS ; }BFSFZL 5F%T YTL GYL4 5ZT]JI ISTGM 5MTFGF ÒJG 5tI GM VIEUD DGMU{7FIGS ; }BFSFZL A1F KP (**Lykken & Tellegen, 1996**) VFJL JF:TIJSTFG[DGDA ZFBLG[; XMSM[JI ISTtJ VG[JI ISTS DGMU{7FIGS ; }BFSFZL JrR[; AW XMWJFGM 5IF; SIM KP VFD4 JI ISTtJ VG[DGMU{7FIGS ; }BFSFZL JrR[TDG[5A/ ; C; AW HMUF D?I M KP HDS# AICD]BL56] DGMU{7FIGS ; }BFSFZLG\ BA H VUtI G\ VFUFCL ; RS 5IZA/ KP H[, MSM ACFZ OZGFZF CMI 4 ; FDFIHS CMI T\MDA ALHF SZTF JW] DGMU{7FIGS ; }BFSFZL HMUF D/[KP :JDFGGL , FU6L VG[VFXEJFNG[DGMU{7FIGS ; }BFSFZL ; FYI IJWFIS ; AW KP (**Lucas, Diener Suh (1996)**).

(2) 5D VG[, uG (Love and Marriage)

cZMD]g8LSc ; AWM TGFJ5} "CM. XS[KP 5DDA 50[, F , MSM VD DFG[K[S# 5D V[DGMU{7FIGS ; }BFSFZLG[V; Z SZT] V\$ VUtI G\ 38S KP (**Myers 1999**). H[, MSM 5MTFGF , uG IJX[36F 5SFZGL OIZI FNM SIF" SZ[K# KTF TDGF , uGMGF X~VFTGM ; DI V[DGMU{7FIGS ; }BFSFZL ; FY[REJL~5 ; AW WZEJ[KP 5]-QFM VG[:+LVMAgG[HFITDA V\$, F ZC[TF VG[KBFKDF , LW[, F , MSM SZTF 5ZI6T , MSMDA DGMU{7FIGS ; }BFSFZL JW] CMI KP (**Mayers and diener, 1995**). TD KTF DGMU{7FIGS ; }BFSFZL VG[, uG JrR[Gf ; AWG\ SFI SFZ6 IJ` , DF6 SZJ\ D\XS[, KP V[U] 56 XSI K[S# , uG DGMU{7FIGS ; }BFSFZLDA JWFZM SZ[TGF SZTF DGMU{7FIGS ; }BFSFZL , uGDA JWFZ[; TMDF VF5[KP SNFR V[U]56 XSI CMI S# H[, MSM JW]

DGMU{7FIGS ;]BFSFZL WZFJTF CMI T[VMM , uGDF\ JWFZ[IGS8GM ; YAW AFWL XS[KP
VG[T[VMM VFJ[US ZLT[I:YZ CMI K[HI FZ[NpBL , MSMG[ÒJG; FYL XMMJFDF\ S[ÒJG
; FYL ; FYGM ; YAW 8SFJL ZFBJFDF\ BJA H Dks[, LVM 50[KP

(3) SFI " (Work)

; FDFgl ZLT[, MSM V[U] IJRFZTF CMI S[SFI " V[DGMU{7FIGS ;]BFSFZLG\ V[S
DCtJG\ pN ŸEJ:YFG K[5ZT] SFI " DFYL D/TF ; TMOF V[DGMU{7FIGS ;]BFSFZL
; FY[UF- ZLT[; S/FI [, MKP (Werr,1999) VeIF; M NXFJ[K[S[ASFZLGL J[ISTS
DGMU{7FIGS ;]BFSFZLGL , FU6L 5Z VtiT IJGF; S V; Z 50[KP (Argyle, 1999)
V[D SC[U] Dks[, K[S[4 SFI " ; TMOF DGMU{7FIGS ;]BFSFZLG[, FJ[K[S[DGMU{7FIGS
;]BFSFZL SFI " ; TMOFDF\ JWFZM SZ[KP 5ZEFJVM V[D NXFJ[K[S[VFJM SFI SFZ6GM
; YAW pEI , 1FL KP

1.3.1.2.2 DGMU{7FIGS ;]BFSFZLG[S\ S VX[V; Z SZTF 5IZA/M

; XMMGM NXFJ[K[S[RFZ 5IZA/MG[DGMU{7FIGS ;]BFSFZL ; FY[S\ S VX[
; YAW ZC[, MKP ; FDFIHS 5pIT4 :JF:yI 4 WFID'S zWWF VG[; \SITP

(1) ; FDFIHS 5pIT (Social Activities)

DFGJL V[S ; FDFIHS 5f6L K[VG[; DFH ; FY[GA 5FZ:5IZS VFTZJ[ISTS
; YAWM T[DGL DGMU{7FIGS ;]BFSFZLDF\ OF/M VF5[KP H[, MSM 5MTFGF ID+ JT]/YL
; T[8 CMI VG[; FDFIHS ZLT[H[, MSM ; IS[CMI TUF , MSM ; ZZF; ZLT[DGMU{7FIGS
;]BFSFZL 3ZFJTF CMI KP (Cooper, Oramura and Gurka, 1992, Myers, 1999),
HI FZ[ALÒ AFH] H[, MSM V[S , TFYL 5LOTF CMI TUF , MSM BJA H NpBL CMI KP
(Argyle 1987)

(2) :JF:yI (Health)

; F~ XFZLIZS :JF:yI DGMU{7FIGS ;]BFSFZL DF8G\ BJA H VFJxI S W8S KP
SFZ64 XFZLIZS VG[DFGI; S :JF:yI 5FZ:5IZS ZLT[; S/FI [, F KP XFZLIZS VG[

DFGI; S ZLT[:J:Y jI ISTDA SM. 56 SFI "SZJFGL 1FDTF CMI K# TMM HJFANFZL
GLEFJ[K[VG[OZHM 5ZL SZ[K[TPDH CSFZfDS ZLT[IJRFZL XS[K# H[TG[
DGMJ{7FIGS ; }BFSFZL TZO , . HFI K# HM S{**Freediman (1978)** H6FJ[K[S# ; F~
:JF:yI 5MT[H DGMJ{7FIGS ; }BFSFZL pt5gG SZT}GYLP SFZ6 , MSM ; FZF :JF:yI G[
I:JSFZL , [K#

(3) WD" (Religion)

WFIDSTF VG[DGMJ{7FIGS ; }BFSFZLGL , FU6L JrR[DwI D 5|DF6GM ; AW
ZC[M K# 5ZT] DMBF5FIF 5Z YI[, F VeIF; MDFGF S# , FS VeIF; M NXFJ[K[S# H[
 , MSMGL WFIDS zwWF ã- CMI TUF , MSM VWFIDS , MSM SZTF JW] DGMJ{7FIGS ; }BFSFZL
WZFJTF CMI K# (**Argyle, 1999, Poloma and Pendleton,1990**). ; XMWSMG[RMSS;
BFTZL GYL S# WD" S. ZLT[DGMJ{7FIGS ; }BFSFZL , FJ[K# 5ZT] **Myers (1992)** WD"
S. ZLT[DGMJ{7FIGS ; }BFSFZLGL V; Z SZ[K[TGFA; NE'DFA S# , LS WFZ6FVM SZTF
H6FJ[K[S# WD'V[jI ISTG[ÒJGGMC[T] VG[ÒJGGL VY'5}b"TF VG[7FG VF5L XS[
K# WD'G[, LW[H jI IST ÒJGDFA VEFJTL D}S[, LVM VG[VF3FTM ; CG SZL XS[K#
WFIDS , MSM CDXF VgI GFA S<I F6GL 5|ITVMDFA}A H Z; , [K[VG[TMM ÒJGGL
1F6EVJZTF S[DtI]GM ; CHTFYL :JLSFZ SZL , [K#

(4) ; \S'IT (Culture)

; XMWSM NXFJ[K[S# S# , FS ; F\S'ITS 5IZJtIM ; ZZF; DGMJ{7FIGS
; }BFSFZLGL , FU6L ; FY[UF- ZLT[; S/FI[, F K# (**Diener, Diener and Diener,**
1995, Suh et.al. 1998) VF 5IZJtI MDA D}I tJ[jI ISTtJJFN IJ~wW ; D}CJFNGL
DFgI TFDFAZC[, L ; F\S'ITS IEgGTF K# jI ISTJFN V[jI ISTGFA 5MTFGF wI [I MG[HYGA
wI [I MSZTF JW] DctJ VF5[K# HI FZ[VGFYL IJ~wW ; D}CJFN V[jI ISTGF 5MTFGF
wI [I MSZTF HYGFA wI [I MG[JW] DctJ VF5[K# TMM 5MTFGAS}8}A4 HFIT4 SFI 'HY4
; FDFIHS JU# 7FIT JUZ[G[DctJ VF5[K# jI ISTJFN ; \S'ITGFA , MSM SZTFA

; DJCFNL ; \SITGF , MSM ; DFG 5SFZGF DkI M V\$ALHFGM ; CSFZ4 5Z:5Z :JFJv
 , AG VG[5MTFGL 5JITGL HY 5Z YTL V; ZMJUZ[AFATMG[BJA H DCtJ VF5[
 KP (Kwan, Bond & Singelis, 1997) VF 5SFZGL JF:TIJSTF ; FY[ZCLG[; DJCFN
 ; AWMGL ; VFINTFG[; ZZF; DGMU{7FIGS ; }BFSFZLG\DCtJG\IG6F¹ S W8S U6JFDF
 VFJ[KP (Diener and Suh et.al. 1999). ; XMMGM NXFJ[K[S# ; DJCFNL ; \SIT
 WZFJTF , MSMDF jI ISTJFNL ; \SIT WZFJTF , MSM SZTF JW] DGMU{7FIGS ; }BFSFZL
 HMUF D/[KP

1.3.1.2.3 DGMU{7FIGS ; }BFSFZL DF8[VUtI GF\GYL T]F 5IZA/M

; FDFgI ZLT[, MSM V[D DFG[K[S# VD]S 38SM DGMU{7FIGS ; }BFSFZL ; FY[UF-
 ZLT[; \S/FI[, K# 5ZT] VeI F; YL HF6JF D?I] K[S# BZ]BZ JF:TIJS ZLT[VF 38SM
 DGMU{7FIGS ; }BFSFZL ; FY[; \S/FI[, F GYLP

(1) 5{ F (Money)

jI ISTGL VFJS VG[TGL DGMU{7FIGS ; }BFSFZL JrR[IJWFI S ; C; AW HMUF
 D/[K# 5ZT] VF ; AW VF`RI HGS ZLT[36M VMKM KP(Myers and Diener, 1995).
 V\$ VeI F; DF, MSMGL VFJS VG[DGMU{7FIGS ; }BFSFZL JrR[0.12 ; C; AW HMUF
 D?I MCTMP (Diener et.al. 1993) VF56[V[:JLSEZJ] HM. V[S[VITXI 5]DF6GL
 UZLAF. , MSMG[NpBL AGFJL XS[K# 5ZT] , MSM VFJSGL ε108V[UZLAF. GL Z]BFGL
 H]DvHD p5Z HFI K# T]DvT]D VFJS VG[DGMU{7FIGS ; }BFSFZL JrR[GM ; AW
 38TM HFI KP ; ZZF; ZLT[HM. V[TM Dwi D JU'GF , MSM SZTF prR JU'GF , MSM
 YMF5 5]DF6DF\ H JW] ; }BFSFZL WZFJTF H6FI KP VFW]GS I]UGA , MSMGM 5{ FGM
 VITXI J5ZFX 5{ FGL ; D: I FG[JW] UVELZ AGFJ[K[VG[UD[T]B, F 5{ F SDFTF
 jI ISTG[56 5{ FGL TVUL JTF¹ KP H[, MSMGL VFJS , FBM ~15 I F CMI K[T]F , MSM
 56 5{ FGL TVUL IJX[OIZI FN SZTF HMUF D/[KP

(2) pDZ (Age)

pDZ VG[DGMU{7FIGS ; }BFSFZL JrR[DCTD ; C; VAW HMUF D?I M GYLP , MSMGL DGMU{7FIGS ; }BFSFZLDA\ZC[, F jI ISTUT TOFJTMDA pDZGM OF/M DF+ 1 8SF Hß, M H CMI KP (Inglehart,1990, Myers and Diener,1997). DGMU{7FIGS ; }BFSFZLGL , FU6L VUJGF 38SMDA HD HD pDZDA JWFZM YFI TD TD jI J; FII S SFI "IAGDctJG\ AGT\HFI K[VG[: JF:yI G\DctJ JWT]HFI K# 5ZT] ÒJGGFA 0, S 5Z , MSMGL DGMU{7FIGS ; }BFSFZLGL S1FF , UEU ; Z\FX ZC[KP

(3) HFIT (Gender)

5]-QFMGL ; ZBFD6LDA\ : +LVMDFA\BgGTFG\ 5]DF6 36\ JWFZ[CMI K# TGF VFWFZ[VU\ SCL XSFI S# 5]-QFMGL ; ZBFD6LDA\ : +LVMDFA\ DGMU{7FIGS ; }BFSFZL VMKL CMI K# TD KTA\pDZGL HD HFTLGM 56 DGMU{7FIGS ; }BFSFZLGL , FU6LDA DF+ 1 8SFGM H OF/M CMI K[(Myers, 1992). VFD VeIF; M ATEJ[K[S# HFITGL V; Z DGMU{7FIGS ; }BFSFZL 5Z YTL GYLP

(4) DFJTZ56] (Parenthood)

; FDFgI ZLT[JTDFG ; DI GF\AF/SM TMDFGL CMJFYL DFTFvI5TF DF8[DFYFGM NpBFJM S[TS, LONG\ SFZ6 AGL HFI KP AF/SM JUZGA I]U, M SZTF AF/SM JF/F I]U, MDA JW] 5]DF6DA\IRTTF VG[, uGIJQFI S ; D: I FVM JW] 5]DF6DA\ VG]EJFI KP (Argyle, 1987). ; FDFgI ZLT[DFJTZ56FGL ; FZL VG[BZFA V; ZM V\$ALHF ; FY[; DT], T ZC[KP Vß, [S# AF/SM JUZGA I]U, M SZTF AF/SMJF/F I]U, MDA JW] S[VMKL DGMU{7FIGS ; }BFSFZL CMI K[Vp : 508 SZL XSFT\GYLP

(5) A]wW (Intelligence)

VFW]GS I]JUDA\ A]wW V[VIT DctJG\ , 1F6 U6JFDA\ VFJ[K# 5ZT] A]wW VG[DGMU{7FIGS ; }BFSFZL JrR[; XMM SM SM. ; C; VAW XMM XSIF GYLP (Diener, 1984). X{FI6S I; IwWVMG[56 ÒJG; TMDF ; FY[; LMM ; VAW GYLP (Ross and Vanwilligen, 1997).

(6) XFZLIZS VFSQF"TF (Physical attractiveness)

; FDFgI ZLT[VGFSDQFS , MSM SZTF VFSQFS , MSM ; DFHDA JW] , FE D/[J[KP 5I RDGA ; DFHDA XFZLIZS VFSQFSTFG[JW] DCtJGL U6JFDA VFJ[KP TYL VF56[VU] SCL XSLV[S# VGFSDQFS , MSM SZTF VFSQFS , MSMDA JW] DGMU{7FIGS ; }BFSFZL CM. XS# TD KTA 56 TGA IJX[5F%T YI [, L DFICTL NXF"J[K[S# VFSQFSTF VG[DGMU{7FIGS ; }BFSFZL JrR[GÒJM ; YAW KP

(7) HG; D]Cq ; D]NFI (Community)

Freedman (1978) äFZF , MSG[5]KJFDA VFjI] S# T]MM SI A ZC]F . rK[K[tI FZ[DMBEFUGF , MSM[pTZ VF%I M S# 5MT[XFT VG[UfdI IJ:TFZDA ZC]FG] 5; N SZ[K# TD KTA 56 DGMU{7FIGS ; }BFSFZLGM ; D]NFI ; FY[GÒJM ; YAW ZC[, M KP XCZL4 VW"XCZL VG[UfdI IJ:TFZDA ZC]TF , MSMDA ; DFG 5]DF6DA DGMU{7FIGS ; }BFSFZL HMUF D/[KP DGMU{7FIGS ; }BFSFZL DF8[IG6F" S 5IZA/M XMWJF DF8[IJ]W ; XMSM[VeIF; M SIF" KP V]F 36F 5IZA/M VU[DFICTL D/L K[H# DGMU{7FIGS ; }BFSFZLG[5]EFIJT SZL XSP VEFJ 5IZA/MG[+6 DMBF JUMDAJULST SZL XSFI KP

(A) DGMU{7FIGS 5IZA/M

DGMU{7FIGS ; }BFSFZLGF\ bI F, G[wI FGDAZFBLG[**Marec and Johoda(1989)** V[TG[V; ZSTF" 5IZA/M VF D]HA NXF"J] I F KP

(1) jI ISTtJG\ ;]U]G

DFGJLG\ jI ISTtJV[VG\$, 1F6MG\AG[,] KP VF VG\$ 5]SFZGA, 1F6M V\$ALHF ; FY[; UI9T Y. G[V\$ V\$D TZLS[SFI "SZ[TM TG[DGMU{7FIGS ; }BFSFZLGL V\$ IGXFGU6L XSFI KP VM, 5MBGF DT]I 5]DF6[VEFJ 5]SFZGA ; U9GDFYL NZ\$ jI ISTDA D]I tJ[V\$ RMSS; 5]SFZGL IJRFZ; Z6L 30FI KP VF IJRFZ; Z6L H\$, F 5]DF6DA pRL CM T\$, F 5]DF6DA T]jI ISTGL DGMU{7FIGS ; }BFSFZL 56 pçD CM KP

(2) : Jv VFIJQSFZ

jI ISTGL DM8FEFUGL ; FDFgI H~ZLI FTM HI FZ[; VM8FFI [, L CMI tI FZ[T[: Jv VFIJQSFZGFA IJSF; GL H~ZLI FT VG[EJ[K[VG[HM VFJF 5SFZGA: JvVFIJQSFZGL 5Z6F DF8[jI IST JT'G SZ[TM T[DGL DGMU{7FIGS ; }BFSFZL GA/L U6JFDFV VFJ[KP

(3) jI ISTGL : JFI TTF

jI IST : JFJ , YAL CMI 4 : JT+ ZLT[IG6"IM SZL XSTL CMI VG[; FDF8S 5I F"JZ6GFA ; }SDFYL VFJTL DkS[, LVMMG CVDXF pS[, FJL XSTL CMI TM T[GDFV DGMU{7FIGS ; }BFSFZLG\ 5[Df6 pR[K[V[D SCL XSFI P JFZUFZ GFGI AFATMDFV 5 6 VgI GF ; , FC ; }RGM VG[VIE5FI 5[Df6[JT'G SZJ\ T[DGMU{7FIGS ; }BFSFZLGA 38F0FG\ ; }RG SZ[KP

(4) jI ISTGFA 5MTFGL HFT 5tI [GFA DGMU , 6M

; FDFgI ZLT[H[jI ISTVM 5MTFGL HFT 5tI [TWZ: T DGMU , 6M WZFJ[K# 5MTFGL XIST VG[DI FNFVMG[wI FGDFV ZFBIG[H[jI ISTVM JF: TIJSTFGM : JLSFZ SZJFG\ J , 6 WZFJ[K# TMMGL DGMU{7FIGS ; }BFSFZL pD CMI KP VFJF 5SFZGL jI ISTVMG[5MTFGL HFT 5tI [VftDUFZJ VG[VftDIJ` JF; CMI KP TYL TMM 5MTFGL 1FDTF 5[Df6GL V5[IFFVM ZFB[KP 5IZ6FD[T[DGL IG00/ HJFGL XSI TFVM AC] H GICJTÿ CMI FYL TDFYL DGMU{7FIGS ; VM8F D/L ZC[K# H[DGMU{7FIGS ; }BFSFZLG[JWFZ[KP

(5) JF: TIJSTFG\ 5tI 1FLSZ6 SZJFGL jI ISTGL ZLT

; FDFgI ZLT[jI ISTG\ I YFY" 5tI 1FLSZ6 DGMU{7FIGS ; }BFSFZLG\ BJA H VUtI G\ 38S U6JFDFV VFJ[KP jI ISTGL 5MTFGL H~ZLI FTM# 5JU|CM VG[DGMU , 6M YL IJST G YI[, F 5tI 1FLSZ6G[I YFY" 5tI 1FLSZ6 SC[KP T[DFA jI IST 5MTFGL V5[IFFVM VG[JF: TIJS CSLSTM JrRGM EN ; D8 XS[KP

(6) 5I F"JZ6 5Z 5[E]tJ VG[IGI +6

; FDFgI ZLT[; FDFIHS VG[S|NZTL 5I F"JZ6DA jI ISTVM VG[J: TMM 5Z

5|E|tJ D/ JJFGL XISTG[DGMU{7FIGS ; }BFSFZL DF8[VUtI G| , 1F6 U6JFDF\VFJ[
KP TDF\ V\$ALHFG[5|D VF5JFGL VG[5|D 5F%T SZJFGL XIST4 SFI DF\ ; 0/TF 5F%T
SZJFGL 1FDTF4 ; D: I F pS|, GL SFI *1FDTF4 5Z:5Z VF\TZJ{| ISTS ; AWMDF\5I F%TTF
VG[5I FJZ6 ; FY[; DFI MHG ; FWJFGL 1FDTFGM ; DFJX YFI KP

(B) ; FDFIHS 5IZA/M

IJIJW ; XMMSMV[DGMU{7FIGS ; }BFSFZLGF\ ; FDFIHS 5IZA/MGL ; DHJT
VF5JFGM 5|IF; SI M K# T[5IZA/MGM GLR[5|DF6[p<, }B SZJFDF\VFjI M KP

(1) S}A ÒJG

SM, DGGF D\TjI 5|DF6[SF8|AS ÒJG V[~IRSZ VG[:YFI L ; FDFIHS ; AWM
DF8GF\ äFZ B|, F SZ[K# HGF\ 5IZ6FD[V\$, TFGl , FU6L NZ YFI KP S}ADA
jI ISTGL IJIJW 5\$FZGL H~ZLI FTM ; \TMFFI KP jI ISTGL H[SF\ H~ZLI FTM K[T[5}6"
Y. HFI TMjI IST 5MTFGL DGMU{7FIGS ; }BFSFZLDF\ JWFZM SZL XS[K[VG[ÒJGDA
pNÿEJTL ; D: I FVMG[:J:YTF5}JS XMWL XS[KP

(2) EF. EF0}JrR[JDG: I

EF. EF0}JrR[GF\ ; AWM JDG: I WZFJTF G CMJF HM. VP EF. EF0}JrR[; FZF
; DFI MHT ; AWM 5Z:5Z ; CSFZ4 :G|C VG[IGS8TFGL , FU6L WZFJTF CMI TM T|DGL
DGMU{7FIGS ; }BFSFZL ; FZL IJSF; 5FDL XS[KP

(3) :J:Y ; FDFIHS ; AWM

jI IST ; DFHGF\ VgI ; eIM ; FYGL 5Z:5ZGL VF\TZIS|I F NZdI FG :J:Y VG[
; DFI MHT ; AWM :YF5L XS[T[DGMU{7FIGS ; }BFSFZL DF8[B}A H H~ZL KP VgI
jI ISTVMGF\ ; FZFvGZ; F 5F; FVMG[JF:TIJS ZLT[D}I FSG SZJFGL XIST WZFJTF
CMI VG[VgI jI ISTVM 5F; |L S|JF 5\$FZGF\ JT'GGL V5|FF ZFBJL4 5MT[VgI
jI ISTVM ; FY[S|JF 5\$FZG} JT'G SZJ} JUZ[AFATM VU[H[jI IST :J:YTF5}JS
IJRFZL XS[T|jI ISTGL DGMU{7FIGS ; }BFSFZL ; FZL CMI KP

(4) I MuI jI J; FII S JFTEJZ6

jI ISTG[HM 5MTFGL A]wWS1FF4 VIEIMuI TF4 XIST VG[, FI SFT 5DF6[jI J; FI D/[TM H T[jI IST jI J; FI 5tI [GM DGMU{7FIGS ; TMOF 5F%T SZL XS[KP jI ISTG[5MTFGL XIST 5NIX" SZJFGL IA, S], TS G D/[VYJF jI ISTG[5MTFGL XIST ACZG\ SFI" SZJFG\ CMI TM jI IST DFGI; S ZLT[EFUL 50[KP VF p5ZAT ZC9F6G\ :Y/4 ; FYL ID+MGM ; CSFZ4 SFI 4 5IZI:YITG\ JFTEJZ6 SFI 'G\ :J~5 JUZ[56 DGMU{7FIGS ;]BFSFZLG[V; Z SZ[KP

(C) jI ISTUT 5IZA/M

; FDFgl ZLT[36F DGMU{7FIGSM VU] DFGI K[S[JFZ; M XFZLIZS :JF:yI 4 A]wW JUZ[HUF jI ISTUT 5IZA/M56 S8, 8 V\X[DGMU{7FIGS ;]BFSFZLG[5]EFIJT SZ[K# HDS[BFDLE I M JFZ; M DFGI; S VG[XFZLIZS ZMUM YJF DF8[0/ä]5 JFTEJZ6 5]- 5F0[K[VG[jI ISTtJGL IJ; VFINTTF DF8[VG\$]/ V; Z pt5gG SZ[KP ; TT56[XFZLIZS DFNUL WZFJTL jI IST , FAF ; DI ;]WL I MuI DGMU{7FIGS ;]BFSFZL ; CG SZL XSTL GYL4DNA]wW WZFJGFZ jI ISTVMGL DGMU{7FIGS ;]BFSFZL 56 IGdGS1FFGL CMI K# T[HF6LTL CSLST KP

1.3.1.3 DGMU{7FIGS ;]BFSFZLGL HF/J6L VUJGF ;]RGM

Practical Psychology GFDG\5]:TSD\ AG'CF8" DGMU{7FIGS ;]BFSFZLGL HF/J6L VUJGF ;]RGM VF%I F K# H[GLR[5DF6[KP

1. ÒJGDF\p5I MUL 5P'ITVM SZM HG[5IZ6FD[IRTF VG[EI NZ YFI P
2. CDXF JTDFGSF/G[wI FGDF\ZFBLG[ÒJG ÒJMP
3. AC]H VFZFDYL ÒJM ÒJGGF\NZ\$ AGFJG[; CH ZLT[, MP
4. ÒJGGF\NZ\$ SFI "VG[ZDTDF\Z; pt5gG SZMP
5. ÒJGDF\CDXF VftDIGZL1f6 SZM ALGH~ZL AFATM TDG[ÒJGDF\ B, [, G 5CMRF0[TGM; TT bI F, ZFBMP

6. $\hat{O}JGDA\ VEFJTL\ S9LG\ VG[\ IR\{TFHgl\ ;\ D:\{FVMGM\ pS[\ ,\ A\{wWUdI\ ZLT[\ ,\ FJJFGL\ 8\{ 5FOMP$
7. $\hat{O}JGDA\ SM.\ 56\ 5\{SFZG\}SFD\ D[\ ,\ tJL\ ZFBXM\ GCLW\ T\{GF\ DF8\{H<NL\ IG6\{I\ SZMP$
8. $\hat{O}JGDA\ TD[\ ,\ LW[\ ,\ F\ IG6\{I\ MGA\ 5IZ6FDMGM\ IJRFZ\ SZM\ VG[\ T\{DFYL\ AMW5F9\ ,\ \{TF\ XLBM$
9. $\hat{O}JGDA\ 5[\ ;\ gGTF\ VG[\ VFXFJFNL\ J\ ,\ 6\ DGMU\{7FIGS\ ;\ \{BFSFZL\ DF8\{ B\{A\ H\ H\sim ZL\ KP$
10. $DGMU\{7FIGS\ ;\ \{BFSFZLGM\ VFWFZ\ XFZLIZS\ :JF:yI\ 5Z\ 56\ ZC[\ ,\ M\ K\{ T\{YL\ XFZLIZS\ :JF:yI\ GL\ HF/J6L\ ZFBM$
11. $\hat{O}JGDA\ CD\{XF\ prR\ wI\ \{I\ 4\ pgDT\ IJRFZM\ VG[\ pDNF\ VFNX\{ ZFBM$
12. $\hat{O}JGDA\ ALHF\ ,\ MSMGL\ ;\ FY[\ ZC\{TF\ XLBM\ VG[\ ALHF\ ,\ MSMGL\ ;\ D:\{FVMDFZ;\ ,\ \{TF\ XLBM$

1.3.1.4 DGMU{7FIGS ; }BFSFZLGF 5IZ6FDM

1. ; $\{TMDF$ (**Satisfaction**)

$jI\ ISTG\{5MTFG\} ,\ uG\hat{O}JG4\ :JF:yI\ VG[\ ;\ DU\ \hat{O}JG\ ;\ \{TMDFSFZS\ K[\ S[\ SD\ m\ T\{VU\{GL\ DFICTL\ VF5[\ KP$

2. ; FDFÖS VFWFZ (**Social Support**)

$jI\ ISTG[\ ;\ DFH\ TZOYL\ S\{ ,\ M8\{SM\ D/L\ ZC[\ K[\ m\ T\{VU\{GL\ DFICTL\ VF5[\ KP$

3. VY\JICGTF (**Meaning lessness**)

$jI\ ISTDA\ ZC[\ ,\ 5MTFGA\ \hat{O}JG\ \hat{O}JJF\ 5\{tI\ \{GM\ V6UDM\ VG[\ jI\ ISTG[\ \hat{O}JGDA\ VG\{EJFTL\ V\{S\ ,\ TFG\} ;\ \{RG\ SZ[\ KP$

4. XFZLIZS OIZI FN (**Somatic Symptoms**)

$jI\ ISTDA\ ZC[\ ,\ F\ XFZLIZS\ ZMU\ VG[\ DFGI\ ;\ SAMH\ S[\ TGEJI\ \{ST\ 5IZI\ :YIT\ GM\ p<\ ,\ \{B\ SZ[\ KP$

5. VFtDUFZJ (Self Esteem)

jI ISTGM 5MTFGM : JvVIE5FI VG[VgI jI ISTVMGL T], GFDFjI ISTGL 5MTFGL SFI "SZJF DF8GL 1FDTFG\ ; RG SZ[KP

6. IJWFI S , FU6L (Positive affect)

jI ISTV[5MTFGA\ÒJGDF\ S\ S 5F%T SIFGM VFGN VG[jI ISTV[5MT[SZ[, SFI " 5tI [GF UFZJG\ ; RG SZ[KP

7. SFI DL 5J'IT (Daily Activities)

jI IST 5MTFGA\ÒJGDF\ IGI IDT56[H[S\ 5J'ITVM SZ[K[TDFYL VFGN 5F%T SZ[K[S[S[D m VG[jI IST 5MT[5MTFGA\ÒJGDF\ VUtI GFAG6"IM , [DFD\ ; 1FD K[S[S[D m T[VU[HF6SFZL 5F%T YFI KP

8. ÒJG; \TMOF (Life Satisfaction)

jI ISTGM 5MTFGM ÒJG 5tI [GM VIEUD VG[JTDFG ; DI TGADF8[Sß, MDCTJGM K[T[VU[G\ ; RG SZ[KP

9. VFtD; \ D (Personal Control)

jI IST 5MTFGF ÒJG NZdIFG H[SM. 5IZI:YITDA D\$FI K[TG[DF8[jI IST 5MTFGL HFTG[S[GXLAG[HJFANFZ U6[K[T[VU[GL DFICTL p5, aW YFI KP

10. Tf6 (Tension)

jI IST JTDFG 5IZI:YITDA\HJ6EZL 5IZI:YITDA K[S[S[D m VG[jI IST U]; ; FHGS S[IRI0IF56FGM : JEFJ WZFJ[K[S[S[D m T[VU[DFICTL VF5[KP

11. ; FZF56\ (Wellness)

jI IST JTDFG ; DI D\TGL 5J'ITVM Sß, L ; FZL ZLT[5FZ 5F0[K[VG[jI ISTGFA5MTFGA\ : JF: yI VU[GL DFICTL VF5[KP

12. ; FDfgI V; ZSFZSTF (General efficiency)

jI ISTG[5MTEG[:JF:yI JW'S S[XISTJW'S NJFVMGL H~Z K[S[S]D m VG[jI ISTV[E]TSE/DA HM SM. SFI "S[5]ITVM SZL K[T]GA 5]DF6DA ; T]ME 5F%T YI M K[S[S]D m T[V]U[DFICTL VF5[KP

13. VftDtI FGF IJRFZM (Suicidal Ideas)

jI ISTV[5MTEGF ÒJGDA VftDctI F SZJF VU]GF IJRFZM SI F" CTF S[S]D m VG[jI ISTG[VftDctI F SZJF VU[IJRFZM VFJ[K[S[S]D m T[VU]GL DFICTL VF5[KP

1.3.2 5IZI:YITHgI v 5]U8IJST IRTF

SM, D]G GFDGA DGMU{7FIGS[H6fjI } K[S] 16 DL ; NL 5]FXGM I]U4 18 DL ; NL TSGM I]U4 19 DL ; NL 5]UITGM I]U VG[20 DL ; NLV[IRTFGM I]U KP

ZMH AZMHGA ÒJGDA IRTF XaNGM p5I MU jI IST TF6HGS S[E I HGS 5IZI:YITDA V:J:YTF VG[V6UDTL ; V]NG , FU6LVMG} J6G SZJF DF8[p5I MU SZ[K] IRTF V[jI ISTG[; R]T SZJFGL V]S V]UL IGXFGL K[S] H[jI ISTG[GÒSGA EI]QI G} HMBD VG[T]GL ; FY[jI JCFZ SZJF DF8]GA 5U, F ,]FG} XSI AGEJ[K] IRTFG} 5]DF6 VG[ITJ]TF H]NLvH]NL jI ISTDA H]NLvH]NL CMI KP IRTF V[jI ISTG[IJWF I S SFI MTZO , . HFI K[TMALÒAFH] T[jI ISTG[IGQIS]I TF TZO 56 , . HFI KP VDS V]X[IRTF V[jI ISTDA 5MTEG} SFI " ; FZL ZLT[SZJF T]DH T]DGL SFI "FDTEG[;]NZ ZLT[N]BFOJF DF8[H~ZL KP 5ZT] H~Z SZTF JWfZ[IRTFG} 5]DF6 SFI "FDTEG[AZFAZ ZLT[V; Z SZ[KP Hallam (1992) GF DT D]HA IRTF V[XaN K[S] H[ZMH AZMHGL JFTIRTDFA p5I MUL YFI K[VG[T[jI IST T]DH 5IZI:YIT JrR]GL HI8, ; VAWTF NXF]J[KP

1.3.2.1 cIRTFc VUJGM DGMU{7FIGS . ITCF;

Kk, F 50 JOFDA DFGJIRTFGF IRIST; FtDS VeIF; MDGMJ` , QF6 ; FICTI DfA JWFZM NXFJ[KP 1950 5C[, F DFGJIRTF 5Z AC] VMKF VeIF; M YIF CTFP **Spielberger (1966)** GfADT[IRTF V[HI8, TFEI]V; FWFZ6 J:T]K[S# HGL IYI ZL läVYL"TDH ; VNuWTF WZFJ[KP I MuI DF5GGF\; FWGNGM VEFJ VG[GITS DkS], LG[SFZ6[IRTF VUJ VeIF; M VMKF YIF CTFP 1950 5KL DFGJIRTFGM VeIF; A[EFUDAJC[rI M KP bIF, FtDS **Advance** V[IRTFG[; {wWFITS AWFZ6DFjI FbI FII T SIF"KP

1960 YL 1963 GF +6 JOFGF\UF/F NZdI FG **Psychological Abstract** GL VNZ IRTF VUJGF VeIF; MGL ; bIF 1930 GM ; DI SZTF N; U6L JWFZ[KP IRTF VUJGF ; XMWGGL VF JT'DFG 5IZI:YIT HMTF H6FI K[S# CF, DfAIRTFG[, UTF ; XMWGG\ 5DF6 J3L UI\ K# HM S[I MUS VG[IAGI MUS jI ISTVMGL IRTF VUJGF VeIF; M AC] VMKF YI F K# VF GFGS0] ; XMWG V[INXF TZOG\ V# 5U, \ KP

IRTF V# , [X]m

IRTFG[VUJ]ÖDfA **Anxiety** SC[K# HI D\ , #LG EFOFFDfA '**Angustus**' 5ZYL pTZL VFjI M K# HGM XFIaNS VY" UJU/FD6 S[; S/FD6 VJM YFI KP . hf0" VG[8MDSMj; HJF S#, FS VeIF; LVM EI VG[IRTFG[; ZBF H U6[KP 5ZT] DMBFEFU GfADGMU{7FIGSM VF A[VFJUM JrR[TOFJT 5FO[KP IRTFGM ; AW EIJOI ; FY[K# HI FZ[EI GM JT'DFG ; FY[; AW KP OM. O[; { 5YD IRTF **Personality** DfAX\EFU EHJ[K[T[NXF]I] VG[V# 56 NXF]I \ S# DNDGMJSIT VG[DGMNCS ZMUDfA 56 IRTF EFU EHJ[KP

ZMÖNF ÖJGDfA JFZJFZ J5ZTF VF XaN IRTFGL SM. ; J"; FDFgI VG[:JLST jI FbI F VF5JFG\ DkS[, KP **Daymond B. Cattell & Scheri** V[38S IJ` , QF6GL 5wWIT äZF VeIF; M SZLG[800 VJF 38SMG[DGMU{7FIGS IRTFGF ; }RS TZLS[J6"]

KP VFYL 5Q8 K[S] VF ; J" 38SMG[V[S ; FY[; FS/LG[IRTFGL ; J":JLST RMSS;
jI FbI F VF5JFG)SFI "D]xS[, AGP

H]NFvH]NF DGMJ{7FIGSM V[VF5[, L IRTFGL S]B, LS jI FbI FVM GLR[D]HA KP

1. O]P I; uD'O OM. O o

T]6[; F{5]YD IRTFGL FbI F, G[DGMJ` , [F6GFAI; wWFTGFA ; NE'DFA; DHEJJFGM
5]I tG SI M'CTMP T]6[IRTFGM VY"; FZL ZLT[SI M'KP

"Something felt an unpleasant affective state on condition."

cc IAG VFG'NFI S VG]EJ[, L I:YITG[OM. O[IRTF TZLS[VM/BFJL KPcc

2. ;], LJFG o

" Anxiety is an intensely unpleasant state of tension arising from experiencing disapproval in interpersonal relation."

cc VFTZ J{I ISTS ; VAWMGL IGQO/TFGA VG]EJDFYL pNÿEJTL TF6GL IAG
VFG'NFI S I:YITV[IRTF KPcc

3. A[: JL8 o

" The conscious & reportable experience of intense dread and for a boding concept ualized as internally derived & unrelated to external threat."

cc TLJ| EI VU[S\ S BZFA AGJFGL VFUFCL S] H|jI ISTGL 5Z6FVMDFYL
pNÿEJ[K] AFCI WDSLVM; FY[; VAWT CMI KP cc

4. DF18'GGF\DT[IRTFGL jI FbI F VF 5]DF6[VF5JL HM. V[o

" As a complex pattern of response and be distinguished conceptually and operationally from external or internal stimulate which licit it. "

cc IRTFGL jI FbI F HI8, 5]ITIS| FVMGL EFT VG[VFTIZS S[AFCI päl5SYL
T]GMpNÿEJ YI M'CMI T[päl5SYL jI FbI FtDS VG[SFI FtDS ZLT[E]N NXF]JL XSF I
T]GA; NE'DFA VF5JL HM. V]Pcc

1.3.2.2 5IZI:YITHgI 5|U8 IJSTIRTF (State Trait Anxiety) Vß, [X]m

5IZI:YITHgI 5|U8IJST IRTF (State Trait Anxiety) bIF, ; F{5YD Cattel äFZF 1966 DAV5FI M VG[Spielberger äFZF (1966 YL 1979) DAIJ:TT SZFI MP

State Anxiety GM VY" 5IZI:YITHgI IRTF VJM YFI KP Spielberg state Anxiety GL jI FbIF VF5TF H6FJ[K[SÄ

cc 5IZI:YITHgI IRTF Vß VJL 1FI6S VFJUS 5|TISI F KÄ HIDA HI T[5IZI:YIT VUJ TGFJ VG[EIGL , FU6LVM ; S/FI[, KP cc VF RMSS; 5SFZGL 5IZI:YIT pt5gG YTF jI ISTDAT[5IZI:YITG[VG]-5 IRTF pNÿEJ[KP VFD4 State Anxiety s5IZI:YITHgI IRTFf V[JFTEJZ6 ; FYGL jI ISTGL VATZISI FDFYL pNÿEJ[KP VFD4 5IZI:YITHgI IRTFDf jI ISTG[AFCI JFTEJZ6GF 38SMs; HMUMF WDSL~5 , FU[KÄ VG[TGF, LW]I IST IRTF VGJEJ[KP

Trait Anxiety GM VY" 5|U8 IJST IRTF S[jI IST IJXDF U]6 IRTF S[:JEFJUT IRTF VJM YFI KP Spielberg Trait Anxiety GL jI FbIF VF5TF H6FJ[K[SÄ

cc 5|U8 IJST IRTF V[jI IST IJXDFU]6 KÄ S[H[DGMEFZI]ST 5IZI:YITVMDA jI IST äFZF IRTF VGJEJJFGL XSI TF Sß, L K[T[GSSL SZ[KPcc Trait Anxiety s5|U8 IJST IRTFf V[jI ISTUT IEgGTFG\ VI: TtJ KP VFJL jI ISTVM 5IZI:YITv HgI IRTF NZdIFG WDSLEZL 5IZI:YITDA CMI KP HD SÄ ; DFG 5IZI:YIT CMUF KTF\ Vß jI IST BJA IRTF VGJEJ[KÄ HIFZ[ALÒ jI IST VMKL IRTF VGJEJ[K[TM T[G\SFZ6 T[jI ISTGM:JEFJ KP VDß jI ISTVMGM:JEFJ H VJMCMI K[SÄ ; FDFgI 5IZI:YITDA 56 T[IRTF VGJEJ[K[TM T]L jI ISTDÄ 5|U8 IJST IRTF ZC[, L K[TD SCJFI P

; FDFgI ZLT[Personality States 1FI6S 38GF jI ISTGF, FU6LS 5|tIF3FT S[VIEjI ST VG[jI ISTtJTFGL I:YIT NXFJ[KP IRTFGL I:YIT V[ELTL T]DH DFGI; S

N], 1I VG[:JI\ RFI, T DHHFT+GL ; IS| TF S[pxSZF8 äZF NXF"JFI KP HIFZ|
Personality Trait V[bIF, FtDS VG[jI ISTVM JrR[GL IEgGTFGL :508 ZLT|
N]IGIFG[RMS; Z:T|; DHJF T[DH RMS; ZLT|JT'G SZ[K] H|; DÒ XSFI KP

Personality Traits G[AWFZ6LI JU" TZLS[1964 DF Atkinson S] H[6|
cc5ZSc SCIF K[VG[Campbell (1963) DF T[G[RMS; :JEFJ TZLS[ATF]I F KP
Trait Anxiety V[:YIUT jI ISTUT TOFJT S[H[IRTFGA J, 6G[NXF"J| K[VG[T|
jI IST JrR[GL IRTFG[I:YIT S[H[WDSLEZL VG[EI ELT CMI K[T[GM VG]EJ Sß, M
SZ[K[T| JrR[GM TOFJT NXF"J| KP **Trait Anxiety** HD JW] T[DH WDSLEZL
5IZI:YITDF]jI IST JW] IRTF VG]EJ| KP VFD4 **Trait Anxiety** V[jI ISTUT IRTFGL
I:YIT K[S] H[State Anxiety G[VG], 1FLG[H]NLvH]NL DF+FDA VG]EJFI T| NXF"J|
KP V[DFH[jI IST pRL **Trait Anxiety** NXF"J| K[T|h05YL **State Anxiety** NXF"J| KP
SFZ6 T[VMJWFZ[50TL 3DSLEZL TYF EI ELT 5IZI:YITG\ VYW8G SZTF CMI KP
1.3.2.3 5IZI:YITHgI 5|U8 IJST IRTF (**State Trait Anxiety**) JrR[GM
TOFJTP

State Trait Anxiety Inventory GM IJSF; IRTF IJX[GM VeIF; SZJF DF8|
YIMCTMP **Spielberger** S] HD6[VF T], F IJS; FJL K] T[GAD]HA 5IZI:YITHgI IRTF
V[XZLZGAVUMGL V]L 1FI6S I:YIT K[S] H[DFV6UDF VG[IRTFGL , FU6L T[DH
CTFXF IGI+6 ACFZ , . HJFGL , F1FI6STFVM KP HIFZ| 5|U8 IJST IRTF V|
:5L, AUZGADT D]HA V]L 5IZI:YIT K[S] H[DFATDFD jI ISTDF JFTEJZ6DA YTF
EI G|; DHJFGL ; DFG VIEjI IST T[DH IRTFDF I:YZ jI ISTUT TOFJT HMJF D/[
KP JW]IJ:TT SZLV[TM 5IZI:YITHgI IRTFV[IRTFGL V]L I:YIT K] S[H[DFV]J|
S\ S VG]EJFI K[S] H[G]SFZ6[VF56[TtSF, LS VG[SFDR, Fp IRTFGM EMU AGLV|
KLV| VG[VF IRTF HIF ;]ML VF56[OZLYL :J:Y G AGLV[tIF ;]ML VG]EJLV|
KLV] 5|U8 IJST IRTF jI IST äZF VUFpYL VG]EJFTL IRTF K[VG[T| ; FDFgI ZLT|

IRTLT : JEFJ WZFTL jI ISTVMDFA HMUF D/[K# TPDH VJL jI IST S# H[5IZI:YITGM
 TtSF, sH<NLYLf ; FDGM SZL XSTF GYL4 TMMDFA HMUF D/[KP NFPTP 5IZI:YITHgI
 IRTF V[K[S[SJTZM HI FZ[VRFGS SFZ ; FD[NMDL VFJ[VG[tI FZ[VF56[VG]EJLV[
 KLV# V# VJL TtSF/ IRTFGL 5IZI:YIT s5tI FWFTMF S# H[; BT IRTFGF 36F H
 , 1F6M 5JU8 SZ[K# H[5IZI:YITHgI IRTF ; FY[; AWT KP tI FZAFN HI FZ[E I DF
 38FOM YFI tI FZ[IRTFGL I:YIT 38[K[VG[VF56[OZLYL 5J"JT S[; FDFgI AGL H. V[
 KLV# VF VJL I:YIT K[S# H[DMBFEFUGF , MSM DMBFEFUGF ; DI [VG]EJTF CMI KP
 DGMU{7FIGSMV[5IZI:YITHgI IRTF VG[5JU8 IJST IRTF XaNm 5MT[; XMWG SZJF
 DF8[IJS; Fj I F KP

1.3.2.4 5IZI:YITHgI 5JU8 IJST IRTF 38FOJF X\SZJ\HM. V[m

IRTFGF ZMUL TZLS[VF56F A3F DF8[V[HF6J\ BJA H~ZL K[S# IRTFV[
 V5ZTL K# TPDH SFI DL GYLP SFZ6 S# VF56[SM. SF8\NAS4 JXLI 4 S[ALÒ SM.
 5J" MÒT 5IZI:YITGM ; FDGM SZLV[tI FZ[OZLYL pNÿEJ[K# VYJF TM ; 5)6"GFX
 56 Y. XS[KP

IRTFGL IJSIT V[JFTIGS I:YIT K[S# H[VWHFUT DGDAIRTF TZLS[; U|CT
 YI[, L CMI KP X~VFTDA VF IRTF IJX[J3] HF6JFGM 5| F; SZLG[TD[SFI DL WMZ6[
 V5ZTL S1FFGL IRTFG[5IZI:YITHgI IRTFGM 5ZTL S1FFDA AN, L XSM KM# H[5JU8
 IJST IRTF äfZF XLBJJFDA VFJ[, CMI KP

IGI IDT wI FGv5f6FI FD HJL I MJGL 8\$GLSYL 56 5IZI:YITHgI 5JU8 IJST
 IRTFDA 38FOM SZL XSFI KP IGI IDT 56[wI FGGL 5\$8L; äfZF DGMA/ ε- AGFJJFGM
 5| F; SZL XSFI 4 HYL IRTFHgI 5IZI:YITDA jI IST 5MTFGA VFJ]U 5Z IGI 4+6 ZFBL
 XSP jI IST 5MTFGL ÒJGX{ LDA OZOFZ SZLG[56 5IZI:YITHgI 5JU8 IJST IRTF
 38FOL XSP JTDfG : 5WFtDS I JUDA jI IST 36LJBT ; DI ; Z SFD G SZL XSJFG[Z6[
 56 IRTFDA D\$FI K# TM jI IST NZ\$ SFD ; DI ; Z SZLG[56 VDS IRTF I]ST
 5IZI:YITG[8F/L XSP

1.4 DGMU{7FIGS ; }BFSFZL VG[5IZI:YITHgI 5|U8 IJST IR\TF JrR\GM ; \AWP

5|:TJT ; \MMVG VwI I GDF\ DGM{7FIGS ; }BFSFZLGM VeIF; 5IZI:YITHgI 5|U8 IJST IR\TFGF ; \AWDA SZJFDA VEFJ M KP 5IZI:YITHgI 5|U8 IJST IR\TF V\ IR\TFGM H V\$ 5\$FZ KP IR\TF VG[DGMU{7FIGS ; }BFSFZL V[A[V\UF 5IZA/M K[S\ AgG\GL V; Z V\$ALHF 5Z YFI KP DGMU{7FIGS ; }BFSFZL VG[5IZI:YITHgI 5|U8 IJST IR\TF JrR\ IGQFWS ; C; \AW ZC[, M KP V\B, [S\ jI ISTDA\DGMU{7FIGS ; }BFSFZLGM 5DF6 JWFZ\ CMI TM IR\TF VMKL HMJF D/[K\ VG[HM DGMU{7FIGS ; }BFSFZLGM 5DF6 VMK\ CMI TM IR\TF JWFZ\ HMJF D/[KP V\ H IR\TFGL V; Z DGMU{7FIGS ; }BFSFZL 5Z YFI KP IR\TF V\ TM IR\TF ; DFG K\ H\GFYL jI ISTG\ DFGI; S VG[XFZLIZS :JF:yI HMBDDA D\$FI KP IR\TF V\ jI ISTGL DGMU{7FIGS ; }BFSFZLDA 38FOM SZ\ KP XZLZGL V\T0: +FJL U\MLVMGFA : +FJ ; FY\ DFGI; S I:YITGM UF- ; \AW K\ V\CSLST CJ\J{7FIGS ZLT[: JLSFI "U6FI KP VF U\MLVM SFI "FD VG\ TNZ:T G CMI TM T\DGDFYL : +JTM : +FJ 5DF6; Z G CMJFYL jI ISTG\DFGI; S :JF:yI HMBDFI KP DUHDA RF, TL DFGI; S 5|S\I F H\DS\ IR\TF4 VEFJU JUZ\ VF : +FJDA VJZMW pt5gG SZ\ K\T\YL jI ISTGL XFZLIZS VG\DFGI; S TNZ:TL HMBDDA D\$FI K\ VG\ V\T[jI ISTGL DGMU{7FIGS ; }BFSFZLDA 38FOM HMJF D/[K\ H\GL V; Z 5IZI:YITHgI 5|U8 IJST IR\TF 5Z YTL HMJF D/[KP

5IZI:YITHgI IR\TF V\IR\TFGL V\JL I:YIT K[S\ H\DA V\J\SL S VG\EJFI K\ S\ H\GF SFZ6[jI IST TtSF, LG VG\SFDR, Fp IR\TFGM EMU AG\KP :JFEFIJS ZLT[H ; D0 XSFI S\ VEFJL 5IZI:YITDAjI ISTDA\DGMU{7FIGS ; }BFSFZLGM VEFJ HMJF D/\ 5|U8 IJST IR\TF V\ jI IST IJXDFU}6 IR\TF K\ H\ jI IST äZF VUFpYL VG\EJFTL :JEFJUT IR\TF KPVFJL IR\TFJF/F jI ISTtJ VG\ DGMU{7FIGS ; }BFSFZL JrR\IGQFWS ; C; \AW ZC[, M KP

1.5 I MUGL ;]BFSFZL 5Z V; Z

; FDFgI , MSM S[HIG[I MU ; FY[S\ H ; AW GYL T[M IJRFZTF CX[S] EFZTDF
 36F , MSM XF DF8[5MTFGF\ XZLZG[; SMRGGL I:YITDF\ ZFBLG[T]DH DM äZF VJFH
 SF-LG[, FAF ; DI ;]L T5:JLGL D]äDF\ A; TF CX[m VF I MUGF\ pNÿEJTL V]S
 5pI FT KAL K] 5ZT] VF V]S V]L ; FDFgI DFgI TF 5FK/ V]S prRSMBLGL ; rRF.
 ZC[, L K[S] I MU äZF DFGI; S ;]BFSFZL VG[5ZD XFVTGM VG]EJ YFI KP I MU V[
 D/ ; \ST I]U c I]H c DFYL pt5gG YI[, KP H]GM VY" HMDJ]S[; FY[RF , J] T]UM YFI
 KP I MU V[5wWIT; Z ZLT[DG4 , FU6L VG[XZLZG[V]S ALHF ; FY[HMD[KP :JFDL
 ZFD V[I MUG[V]F 5]I tG TZLS[NXF"] K[S] H[DFGJ ÒJGGA +6 5F; F4 XFZLIZS
 5F; F4 ; FDFIHS 5F; F VG[VFtDLI 5F; F ; FY[; AVWT KP I MUG] TtJ 7FG V[ÒJGGA
 IJ]W 5F; FVMD\ ; VFINTF ; FWJFG] XLBJ[KP V]S JBT DG VG[XZLZ HMDFI HFI 4
 V]S I :Y5FI HFI TM XFVT VG]EJFI K] VG[AWL H S1FFV[5ZD;]BGM VG]EJ
 YFI KP

HFIT4 pDZ4 XFZLIZS I:YITGF\ E]NEFJ JUZ SM. 56 jI IST I MUIS]I FVM SZL
 XS[KP H[jI IST I MU SZJFGL . rKF XIST WZFJTL CMI T]6[5wWIT; ZGL TF, LD ,]L
 HM. VP I MU V[p5RFZGL 5wWIT GYL 56 T[5IJ+ ZLT[ÒJG ÒJJFG]IJ 7FG K] S]
 H]DF\ VFZMuI DF8[XFVTGL , F1FI6STF p5Z DctJ NXF"]FI KP I MUGL IGI IDT
 5]8L; YL DGGL IG5]6TF4 VFJ]UM VG[, FU6LGL I:YZTF4 N]GI F VG[JF: TIJSTFGL
 ; DH T]DH VF56L NLW&I08G[IJ:TT SZL XSFI KP I MUV[DF+ XFZLIZS S; ZT S]
 VFZMuI DF J]wW H GYL T[XZLZ 5KIGL I:YIT K] VG[T]GF\ äZF DG ;]ML 5CMRL
 XSFI KP I MUGL 5]8L; äZF XZLZGF\ NZ]S V]UG[B]A H VFZFD D/[K] `JF; p5Z
 IGI +6 ZFBJFYL DG p5Z SFA] D/] JL XSFI KP DUHGFA SMDFMGA ; FZF SFI " DF8[I MU
 DctJGM EFU EHJ[KP

1.6 5]:TJT VeIF; G\DCtJ

5tI § DFGJLGA ÒJGG\ V\TD wI |I ;]B 5Ft%TG\ K[;]B D[/JJF DF8[DFGJL ; TT 5| tGXL, CMI K\ T\YL DFGJLGL NZ§ 5\T 56 TGA VF wI |I GL VF; 5F; H U\YFI [, L HMJF D/[K\ VFhMUSZ6 VG[XCZLSZ6 JW] G[JW] jI F5S AGT\HF I K\ EF\TS ;]B D[/JJFGL NMB 5FK/ DF6; G\ DFGI; S :JF:yI HMBDFI ZCI \ K\ jI IST TLJ] :5WFtDS 5IZI:YIT JrR[ÒJL ZCL K\ VFJL ; WOFFtDS 5IZI:YITDF\ JW]G[JW] , MSM DFGI; S IJS'ITGM EMU AGL ZC I F K\ ZMÒNL EFUNMODFYL pNÿEJTL DGMEFZGL ; D:I F4 IR\TF4 JT'GGL IJS'ITVM JUZ\DFYL DF6; D\ST YJF DFU[K\ VFHGM DF6; DGMU{7FIGS ;]BFSFZL D[/JJF ; TT h\B[K[VG[T[DF8\GM GSSZ DFU" XMW[K\

XFZLIZS ZLT[:J:Y ZC\JF DF8[DF6; M ; FZM BMZFS BFI K\ IJ\JW S; ZTM SZ[K\ C\Y S, ADA\ HFI K\ T\DH NJFGM p5I MU SZ[K\ NJFGF p5I MUYL ZMUGA , 1F6MYL K\BSFZM D[/JL XSFI K\ 5ZT] ZMUGA pNÿEJYL K\BSFZM D[/JL XSFTM GYLP V:J:Y YIF 5KL ; FZJFZ SZJF SZTF SM. V\JF p5FI GL H~Z K[S\ H\GFYL jI IST XFZLIZS VG[DFGI; S AgG[ZLT[:J:Y ZCL XS[VG[IR\TF4 DGMEFZ JUZ\DFYL D\ST Y. DGMU{7FIGS ;]BFSFZL D[/JL XSP DGMEFZ4 CTFXF VG[IR\TFDFYL D\ST Y. DGMU{7FIGS ;]BFSFZL 5F%T SZJF cI MUc V[; FZM DFU" K\ H\GFYL G\SXFG YI [, DUHGASMOFMSFI 'ZT YFI K\

I MU V[D/ ; \ST XaN cI]Hc 5ZYL pTZL VFjI M K\ H\GM VY" HMOF6 V\JM YFI K\ V\B, [S\ VFtDFG\ 5ZDFtDF ; FY[HMOJ\ 5ZT] JT'DFG ; DI DF\ I MUJ[WD" SZTF IJ7FG TZLS[J3] DCtJ VF5JFDF\ VFJ[K\ I MUJ[ÒJGG\ IJ7FG K\ XFZLIZS :JF:yI 5F%T SZJF DF6; M I MU TZO J?I F K\ I MU IJX[DFUNX'G VF5JF VG[D[/JJF H\NL H\NL IXIAZM 56 I MHFI K\ 8LPJLP H\JF DFwI DM äZF I MUJL IJ\JW 8\SIGSM VU[IX1F6 VG[; DH\IT VF5JFDF\ VFJ[K\ I MUJL IJ\J3 8\SIGSM H\D S\

wl FG4 5f6FI FD4 IJlJW I MJF; GM JUZ[SZJFYL DUH VG[XZLZGF;]DF%TTV]VM 5]Go
 HFUT YFI K# HGFYL ; FZL ZLT[, MCLG] 5IZE]D6 YFI K# TYF ZMUDFYL K]BSFZM D/[
 KP I MJF; GM VG[IGI IDT SZJFYL XZLZG] JHG VMK] YFI K[T]DH XFZLIZS :JF:yI
 HF/JL XSFI K[T]F 5Z]FJF VF5TF 36F ; XMMGM YIF K# 5ZT] I MJYL DFGI; S
 AFATM H]JL S# DFGI; S TF64 IRTF T]DH DGMU{7FIGS ;]BFSFZL 5Z SM. V; Z YFI
 K[S[S]D m p5ZAT jI ISTGL HFIT T]DH pDZGL V; Z T]MGL 5IZI:YITHgI 5]U8
 IJST IRTF VG[DGMU{7FIGS ;]BFSFZL 5Z YFI K[S[S]D m jI ISTGL DGMU{7FIGS
 ;]BFSFZLGL V; Z T]MGL 5IZI:YITHgI 5]U8 IJST IRTF 5Z YFI K[S[S]D m VF
 INXFDA\CH]AC] SM. ; XMMG YIF CM V]H6FT] GYLP T]YL 5]:T] ; XMMG VeIF;
 VF INXFDA\DFICTL D/]JF DF8]GM V]S 5]I F; KP

1.7 VeIF; G]; VMHG

5]:T] VeIF; GM D]I C[T] I MUS VG[IAGI MUS jI ISTVM JrR[5IZI:YIT
 HgI 5]U8 IJST IRTF VG[DGMU{7FIGS ;]BFSFZLGL AFATDA\TOFJT HMUF D/[K[S[
 S]D T]GM VeIF; SZJFGM CTIP

c]JQFI 5]Xc IXQFS V]TU" 5]SZ6v1 DA\VeIF; DA\ p5IMUDA\ ,]FI[,
 VeIF; GL V]TCFI; S 5]E]DSF4 VUtI GL IJEFJGFVM sH]JL S[DGMU{7FIGS
 ;]BFSFZL VG[5IZI:YITHgI 5]U8 IJST IRTF JUZ[f4 DGMU{7FIGS ;]BFSFZL VG[
 5IZI:YITHgI 5]U8 IJST IRTF JrR]GM ; AW4 5]:T] VeIF; G] DCtJ VG[
 VeIF; G]; VMHG JUZ[D]N]FVMGM ; DFJX SZJFDA\VFj I M KP

c; XMMG ; FICTI GL ; DL1Ffc IXQFS V]TU" 5]SZ6v2 DA\ H]NFvH]NF ; FICTI Mv
 DFYL I MU VG[DGMU{7FIGS ;]BFSFZL4 I MU VG[5IZI:YITHgI IRTF JUZ[VUtI GF
 R, MIJX[E]TSF/DA\YI[, F VeIF; MGL RRF"SZJFDA\VFJL KP

c VwI I GGF\C[T]VM# ; XMMG I MHGF VG[5]S]I F c IXQFS V]TU" 5]SZ6v3 DA\
 VwI I GGF\C[T]VM# X]I ptS<5GFVM 5IZJtI M# ; XMMG I MHGF4 IGNX" 5; NUL4

DFICTL V[S+LSZ6GF\ ; FWGM ; XMWGG L 5|S| F VG[VFS0FXF: +LI 5|I]ISTVMGM
p<, [B SZJFDF\VFjI MKP

c5IZ6FDGL RRF" VG[VYW8Gc IXQFS V\TU" 5|SZ6v4 DF\ I MUS VG[
IAGI MUS jI ISTVMGL DGMU{7FIGS ;]BFSFZL VG[5IZI:YITHgI v5|U8 IJUSTIRTFGF
; NE'DF\ 5F%T YI[, DFICTLG\ H\NLvH\NL VFS0FSLI 5wWITVM äZF 5yYSZ64
VYW8G VG[TGf 5F%T YI[, F 5IZ6FDMGL RRF"SZJFDF\VFJL KP

c; XMWGGF\ TFZ6M VG[E, FD6M: V\TU" 5|SZ6v5 DF\ VwI I GGF\TFZ6M
VwI I GGL DI FNFVM VwI I GGF\ ;]RTFYM VG[E, FD6M JUZ[GL jI JI:YT ZH\FT
SZ[, L KP

VF p5ZF\T VG]5|T'DF\ ; NE";]R VG[5IZIX08DF\ VwI I GDF\p5 I MUDF\
, LW[, L 5| GFJ, LGF GDGFGL ZH\FT SZJFDF\VFJL KP

5\$Z6v 2
; XMG ; FICtI GL ; DL1FF

2.1 5|:TFJGF

2.2 5IZI:YITHgI v5|U8 IJSTIR\TF VUJGF VeI F; M

2.3 DGMJ{7FIGS ;]BFSFZL VUJGF VeI F; M

2.4 VeI F; MGL ; DL1FF

2.5 5|:TJT VeI F; XF DF8[m

2.1 5]:TFJGF

; NE" ; FICTI GL ; DL1FF ; XMWG DF8[DFUNXS AG[KP ; XMWGGA 5]:TJT
 5]SZ6GMpN[ÿxI DGMU{7FIGS ;]BFSFZL VG[5IZI:YITHgI v 5]U8IJSTIRTF
 IJXGF ; NE'DFA E]TSF/DA Y. UI[, F VeIF; M VG[; FICTI G]IJCUFJ, MSG
 SZJFGMCTMP NZS IJ7FGDA; XMWGSFI" ; TT YT]ZC[T] CMI KP ; XMWGDA V]SFV]S
 h5, FJL XSFT]GYLP ; DU] ; XMWGGL 5]S]I FDFE]TSF/DA YI[, VeIF; MG]VwI I G
 V[V]S DC-JG]5UIYI] KP SM. 56 ; XMWG TNÿG GJ] CMT] GYL T]DH SM. 56
 AFAT VU]G] ; XMWGV[VFBZL CMT]GYLP 5]J]YI[, F VeIF; MG VJ, MSG 5ZYL H
 GJ] 7FG 5F%T SZL XSFI KP N]; F. VG[N]; F. (1992) H6FJ[K[S] SM. 56
 ; XMWG X]I VJSFXDA Y T] GYLP ALHFGL ; S<5GFVM VG[I; wWFTM VF56F
 DFUNXS AG[KP

; XMW[S; XMWGftDS T5F; VFNZJL CMI TM ; F{ 5]YD ; AAWT ; FICTI GL
 T5F; SZJL HM. VP ; J]F64 JFI0FS V]SMA ; XMWG ; FZU]YM VG[5MTEGF 1F+DA
 YI[, F VeIF; M VU]GMp0F65]SGM VeIF; SZJM HM. VP T]GFYL VU]p YI[, F
 VeIF; S]F 5]SFZGA K]m S. DI FNF K]m S]F 5]SFZGA VeIF; MGL CH]H~IZI FT K]m
 JUZ[DFICTL 5F%T YFI KP ; AAW ; FICTI GM VeIF; ; D: I FG[jI FbI FII T SZJF DF8[
 VG[T]GL DI FNF AFWJF DF8[B]A H H~ZL KP VU]pGFA VeIF; LVMM[VeIF; DF8[H]
 E]DSF AFWL CMI T]GFA VFWFZ 5Z JW] p0F ; XMWG SZL XSFI P VU]p YI[, F ; XMWG
 VeIF; GFA VJ, MSGYL V]S H 5]SFZGA; XMWGG] 5]GZ]JT]G YT] V8SL HFI KP

5]:TJT ; XMWG VwI I GGM C[T] I MUS VG[IAGI MUS jI ISTVMGL DGMU{7FIGS
 ;]BFSFZL VG[5IZI:YITHgI v5]U8IJSTIRTFDA TOFJT HMUF D/[K[S[S]D T]GFA
 VU] HF6SFZL D/]JJFGMCTMP VF p5ZFT DGMU{7FIGS ;]BFSFZLGL V; Z 5IZI:YITv
 HgI IRTF 5Z HMUF D/[K[S]S]Dm T[HF6JFGM 5]I F; 56 SI MCTMP 5]:TJT VeIF;
 ; FY[; S/FI[, F S]B, FS VUtI GFA VeIF; M VIC\ZH}SIF" KP

2.2 5IZI:YITHgI v5|U8IJSTIR\TF VU|GF VeIF; IP

I MUGL 5IZI:YITHgI v5|U8IJST IR\TF 5Z V; Z YFI K[S[S]D T[VU| S]B, FS VeIF; MYI|, F KP H]DFA H]JAS4 C]UZL4 V]DP4SGZL VFZ VG[3ZF V]DP sI05F8D]g8 VMD . . ., FIDS VFhFN I]GJI; '8L4 . ZFG (2006-2007) äFZF SZJFDF\ VFJ|, VeIF; GM C[T] I MUS VG[IAGI MUS :+LVMGL 5IZI:YITHgI 5|U8IJSTv IR\TFDF\ TOFJT HMUF D/[K[S[S]D m VF VeIF; DF\ IGNX" TZLS[34 V]JL :+LVMGL 5; NUL SZJFDF\ VFJL CTL4 S[H[:+LVM[M[H], F. 2006 YL H], F. 2007 ;]MLDF\ I MU ;]g8ZDF\ I MUGL TF, LD , LW|, CMI VG[31 V]JL :+LVMGL 5; NUL SZJFDF\ VFJL4 H]VMM[I MU ; AVWT SM. 56 5|X1F6 S[TF, LD , LW|, G CMI P IGNX'DFA; DF]JQ8 AgG[U]5GL :+LVMGL I:5, AU"ZGL **State- Trait Anxiety Inventory** äFZF 5IZI:YITHgI v5|U8IJST IR\TFGL RSF; 6L SZJFDF\ VFJLP 5IZ6FD NXF"J[K[S] TF, LD , LW|, L VG[VMKDFDF\ VMKF A[DF; YL IGI IDT I MU SZTL CMI T]JL :+LVMGL ; ZBF6L I MUGL TF, LD G , LW|, L :+LVM ; FY[SZJFDF\ VFJL tI FZ[HF6JF D?I]S] I MU SZTL :+LVMDF\ I MU G SZTL :+LVM SZTF VMKF 5]DF6DF\ 5IZI:YITHgI v5|U8 IJSTIR\TF HMUF D/TL CTLP VFD4 I MUGL TF, LD VG[tI FZAFN IGI IDT I MU äFZF 56 IR\TFGL VIGI V+TTDFDF\ 38FOM HMUF D?I MP VF VeIF; ;]RJ[K[S] I MUGL 5IZI:YITHgI IR\TFGL ; FZJFZ DF8[V]S D]OS, ; FZJFZGL VJ]ÖDF\ p5I MJDF\, . XSFI T]JL ; FZJFZ 5wWIT KP SaATHLG4 HP D; MG4 VPVMP IS; 8]AZ4 HP5]Z; G4 ;]g8MZ]AL V; P (1992) GF VeIF; GM C[T] I MU äFZF IR\TFDF\ 38FOM YFI K[S[GIC T]GL HF6SFZL D/]JJFGM CTMP T]VMGF VeIF; DF\ 22 D]OS, GF NNL'VM S]H[IR\TFGL VIGI V+TTFGM EMU AgI F CTFP T]VMG[8 V9JFI0I F ;]ML I MUGL TF, LD VF5JFDF\ VFJLP VF DF8[3 DF; ;]ML ; TT I MUGL 5]8L; SZJFGL CTL VG[TF, LDFYLVMM 5F;]YL TF, LD NZdI FG H wI FG VG[IJ]JW I MUJF; GM IR\TF 5Z X] V; Z

YFI K[T[GL DFICTL D/JJFDF VEFJLP 5IZ6FDDF HMJF D?I \S# I MJGL 5wWIT; Z VG[IGI DLT TF, LDYL VtI \T JW] 5]DF6DA IR\TFGL VIGI \+TTF WZFJTL jI ISTVMGL IR\TFDA 38FOM YFI KP T]DH DGMEFZ VG[IR\TFGL , F1FI6STFDF 38FOM HMJF D/[KP , [CZZ V\B VM, (2005) GF VeIF; GM C[T] I MU äFZF 5IZI: YITHgI v5|U8 IJSTIR\TFDA 38FOM YFI K[S[S]D m T[T5F; JFGMCTMP T[GFA VeIF; D\ S], 36 : +LVM S# H[: J|rKS ZLT[I MU TF, LDDF HMDFJF . rKTL CTL T[GL 5; NUL SZJFDF VEFJLP VF : +LVMG\ +6 ; D]C GSSL SZJFDF VEFJ I FP 5YD ; D]CGL : +LVMG[I MJGL 5wWIT; ZGL TF, LD VF5JFDF VEFJLP ALHF ; D]CG[OST **Relaxation** GL TF, LD VF5JFDF VEFJLP HI FZ[+LHF ; D]CGL : +LVMG[I MJG\ SM. 7FG S[TF, LD VF5JFDF G VEFJLP 5YD ; D]CGL : +LVMG[5 V9JFI0I FGL I MJGL TF, LD VF5JFDF VEFJL4 HI FZ[ALHF ; D]CGL : +LVMG[4 V9JFI0I FGL OST VD]S H S, FSGL TF, LD VF5JFDF VEFJLP : +LVMGL IR\TF DF5JF DF8[**State-Trait Anxiety Inventory** GM p5I MU SZJFDF VEFJ I M CTM VG[5 V9JFI0I F AFN +6|I ; D]CGL ; ZBFD6L SZJFDF VEFJLP 5IZ6FDDF HMJF D?I \S# ALHF VG[+LHF ; D]CGL : +LVM S[H]VMG[I MJGL 5wWIT; ZGL TF, LD S[IJIX087FG V5FI \G CT] T]VM SZTF 5YD ; D]CGL : +LVM S[H[6[5wWIT; ZG\ I MJG\ 7FG , LW, \CTP T]VMGL 5IZI: YITHgI v5|U8 IJSTIRTF 36F VMKF 5]DF6DA HMJF D/L CTLP

: 8# G (1977) GF VeIF; D\ IGI DLT I MU 5\8L; SZTF 37 jI ISTVMGL ; ZBFD6L 25 V]JF jI ISTVM ; FY[SZJFDF VEFJL H]VM I MJGL 5\8L; SZTF G CTFP VF DF8[I:5, AUZ ZIRT **State -Trait Anxiety Inventory** äFZF AgG[; D]CGL 5IZI: YITHgI v5|U8 IJSTIR\TFGL RSF; 6L SZJFDF VEFJLP 5IZ6FD NXF]J[K[S# 5YD ; D]CGF jI ISTVM S# H[IGI DLT I MUIS|F SZTF CTF T]MDF ALHF ; D]CGF jI ISTVM S# H[SM. 56 5\FZGL I MUIS|F SZTF G CTF T]VM SZTF 36A H VMKF 5]DF6DA 5IZI: YITHgI VG[5|U8 IJSTIRTF HMJF D/L CTLP

O, F. U V₈ VM, (1997) GAVeIF; GM C[T] I MUGL **State Trait Anxiety**
 5Z V; Z YFI K[S]SD T[HF6JFGM CTMP T[6[5MTFGAVeIF; DF 61 IJnFYLVMS₄
 H[prR DfwI IDS S1FFDA VeIF; SZTF CTF T[VMG[I MUGL TF, LD DF8[
 J]. 8LU, L:8DAZFbI F4 HI FZ[19 IJnFYLVMG[I MUGL 5wWIT; ZGL TF, LD VF5JFDA
 VFJLP TF, LD5J[VG[TF, LD AFN TF, LDFYLVMG[IRTFGL RSF; 6L **State Trait**
Anxiety Inventory äZF SZJFDA VFJTF HF6JF D?I } S₄ J]. 8LU, L:8 I; JFI GAV
 ; D[CGAV TF, LDFYLVMG[5IZI: YITHgI v5JU8IJSTIRTFDA TF, LD 5C[F SZTF TF, LD
 AFN 36M 38FOM HMUF D?I M CTMP

I0DM₈ (1985) V[I MU VG[IRTFDA 38FOM IJXG₄ ; FICTI 5JU8 SI } K₄
 VG[TJ]TFZ6 NXFJ I } K[S₄ H[VM I MUGL IGI DLT 5₈L; SZ[K[T[VMG[IRTFDA
 ; FY'S ZLT[38FOM HMUF D/[K₄

HP 5₈Z; G VG[VPVP₄ IS]: 8[Z (1998) GAVeIF; GM C[T] I MU äZF
 IRTFDA 38FOM YFI K[S]GIC T[T5F; JFGM CTMP VF DF8[22 NNLVM S₄ H[VM IRTFGL
 VIGI V+TTFGM EMU AgIF CTF T[VMG[4 V9JFI0IF ; JML I MUGL TF, LD VF5JFDA
 VFJL VG[3 DF; ; JML ; TT I MUGL 5₈L; SZFJJFDA VFJLP TF, LDFYLV 5F; YL
 TF, LD NZdIFG H wIFG VG[IJIJW I MUF; GMGL IRTF 5Z X₄ V; Z YFI K[T[GL
 DFICTLD/[JJFDA VFJLP 5IZ6DDFA HMUF D?I } S₄ I MUGL 5wWIT; Z VG[IGI DLT
 TF, LDYL VtI T JW] 5[DF6DA IRTFGL VIGI V+TTF WZFJTL jI ISTVMG[IRTFDA
 38FOM YFI K₄

EMU, [VG[5₈FX (1995), I; CF VG[JDF" äZF XMWJFDA VFJ I } S₄
 DGMU{7FIGS ; JBSFZLDA 13 5IZA/MGM ; DFJX YFI K₄ H[VMG[DGMU{7FIGS
 ; JBSFZL prRS1FFGL CMI T[VMFA OST :JvbIF, 4 ÖJG; TMDFA CSFZfDS IJRFZM
 VG[J, 6 T[PH , FU6LVMH GYL CMTF4 5ZT[T[VMG SFZfDS J, 64 IRTF4 IJRFZMG[
 JW] ; FZL ZLT[IGI V+6DA ZFBL XS[K₄ VG[I MUGL 5₈L; YL DGMU{7FIGS ; JBSFZLDA

JWFZMY. XS[KP

AßF4 VZ]6F VG[; WJL (1997, IN<CL4 **Journal of Personality & Clinied studies**) äFZF SZJFDF\ VFJ], VeIF; DF\30 IJnfYLVMS[H]MMVtI\T IR\TF WZFJTF CTF4 T]DFYL 15 IJnfYLVMG[T]VMGL IRTFDF\ 38FOM SZJF DF8[H]SMA; GGL 5]MJ; LJ ZL, ß; ; G 8]SGLS VG[AMS8GL ZL, ß; ; G 5wWIT äFZF IZ, ß; ; G VG[I MJGL TF, LD VF5JFDF\ VFJL4 HI FZ[15 IJnfYLVMG[VF ; DI NZdIFG I MU ; FY[; A\WT G CMI T]JL DFICTL VF5JFDF\ VFJL CTLP ti FZAFN AgG[; D]CGA jI ISTVM 5F; [YL **State Trait Anxiety Inventory** äFZF DFICTL V]S9L SZJFDF\ VFJLP 5IZ6FDDF\ HMJF D?I] S# 5]YD ; D]C S[H]VMG[IZ, ß; ; G VG[I MU T]DH wIFGYL TF, LD VF5L CTL T]VMGL IRTFDF\ ALHF ; D]C S# H]G[VFJL I MJGL SM. TF, LD VF5JFDF\ VFJL G CTL T]GA SZTF\ 38FOM HMJF D?I MCTMP

~5zL S]A, SZ sGFU5Z I]GJI; 8lf(1999) äFZF SZJFDF\ VFJ], F VeIF; DF\ ; ZZF; 23 JQ'GL pDZGF V]JF 13 I]JFGMGL IGNX'DF\ 5; NUL SZL4 H]MM 5C], F I MJIS]I F SZTF G CTF4 T]VMG[I MJGL TF, LD VF5JFDF\ VFJLP VF I]JFGMG[I MU TF, LD VF%I F 5C], F VG[TF, LD VF%I F AFN **State Trait Anxiety** äFZF DFICTL V]S9L SZJFDF\ VFJLP 5IZ6FDDF\ HMJF D?I] S# I]JFGMDF\ I MJGL TF, LD , LWF AFN 5IZI:YITHgI v5]U8IJSTIRTFDF\ 38FOM HMJF D?I MCTMP

S]MZF4 :5]S8Z4 VG[O]J0 (2009, **International journal**) GF VeIF; GF C[T] I MJGL 5IZI:YITHgI v5]U8IJSTIRTF 5Z XL V; Z YFI K[T]HF6JFGM CTMP VF DF8[IGNX'DF\ 31 jI ISTVMGL 5; NUL SZJFDF\ VFJLP IGNX'DF\ ; DF]JQ8 jI ISTVM 5F; [YLI:5, AU'ZGL **State Trait Anxiety Inventory** äFZF 5IZI:YITHgI v5]U8 IJSTIRTF VU]GL HF6SFZL D/]JJFDF\ VFJLP ti FZAFN VF 31 jI ISTVMG[INJ; DF\ A]JBT I MJGL TF, LD VG[5]X1F6 VF5JFDF\ VFJL]CTP RFZ V9JFI0I F GL TF, LD AFN VF 31 jI ISTVMGFA ; D]CGL 5IZI:YITHgI v5]U8IJSTIRTF HF6JF DF8[OZL4

State Trait Anxiety Inventory VF5L T|VMGL IR|TF VUJGL DFICTL D|JLP 5IZ6FDDA HMJF D?I\ S# I MUJL TF, LD , LWF AFN VG| tI FZAFN IGI IDT I MUJL 5S8L; YL 5IZI:YITHgI v5|U8ISTIRTFDA 38FOM HMJF D?I MP

h|G D|08|; G4 8LP D|ZT4 V|RP I M; LN (2004, Department of Neuro Psychology & Clinical Laboratory Science, Uni.of Fukui, Japan) äZF SZJFDA VFJ|, F VeIF; GM C|T| I MUJL 5IZI:YITHgI v5|U8IJSTIRTF 5Z V; Z YFI K|S|SD m T|GL HF6SFZL D|JJFGM CTMP T|MM| IGNX" TZLS|22 TWZ:T I JFGM , LWF S# H|VMG| E|TSF/DA I MUJGM SM. H 5SFZGM VG|EJ G CTM T|GL 5F; YL **State Trait Anxiety Inventory** äZF 5IZI:YITHgI v5|U8IJSTIRTFGL DFICTL D|JJFDA VFJLP tI FZAFN T|VMG| I MUJL TF, LD VF5JFDA VFJL VG| tI FZAFN OZL **Strait Trait Anxiety Inventory** VF5JFDA VFJLP 5IZ6FDDA HMJF D?I\ S# I MU TF, LD AFN VFTIZS wIFG XIST äZF VMKF 5DF6DA VG|EJFTL IR|TF 38FOL XSFI K# HI FZ| VtI T 5DF6DA VG|EJFTL IR|TF N# SZJF DF8| I MUJL IJIJW D|SF T|DH , FAF ; DI ; |MLG IGI DLT I MJS|I F SZJL H~ZL KP

XDF# JLSLvNF; 4 V|; P Dg0, 4 V|; P UM: JFDL (2005) V|5MTEGFA VeIF; DA I MU SZTL VG| I MU G SZTL jI ISTVMGL 5IZI:YITHgI v5|U8IJSTIRTFDA TOFJT HMJF D|[K| S| SD m T|GL HF6SFZL D|JJF DF8| IGNX" TZLS| S|, 30 jI ISTVMGL 5; NUL SZL4 T|GA 15-15 jI ISTVMGF A| U|5 5FOL V|S U|5G|8 V9JFI0I FGL ; CH I MUJL TF, LD VF5L VG| ALHF U|5G| VFJL SM. TF, LD VF5JFDA G VFJLP 5IZ6FDDA HMJF D?I\ S# VF9 V9JFI0I F AFN I MUJL TF, LD , LW|, jI ISTVMGL 5IZI:YIT HgI v5|U8IJST IRTFDA I MUJL TF, LD G , LW|, jI ISTVM SZTF 38FOM HMJF D?I MCTMP

0|A|ZL (1992) V| 63 YL 79 JOFGL 36 DIC, FVM S# H|VM VtI T IR|TF WZFJTL CTL T|VMG| IGNX" TZLS| 5; N SZL T|VMG|20 V9JFI0I FGL I MUJL TF, LD

VF5LP TF, LDFYL'VMGL IRTF VUJGL DFICTL TF, LD 5J] TPDH TF, LD AFN , UJFDF
VFJLP TF, LDFYL'G[5YD V[V9JFI0I F ; WL ; TT I MUJIS|I FGL TF, LD V5F. P
tI FZAFNGFA\N; V9JFI0I F NZIDI FG INJ; GL 34 IDIG8 TF, LD VF5JFDF VFJL CTL4
VG[tI FZAFNGFA 10 V9JFI0I F ; WL TF, LDFYL'VM[HFT[H 5[8L; SZJFGL CTLP
5IZ6FDMNXF"J[K[S] H[TF, LDFYL'VM TF, LD 5J] JWFZ[IRTF VG]EJTF CTF4 T[VMGL
IRTFDA IGI IDT I MUJIS|I FYL ; FY'S ZLT[38FOM HMUF D?I M CTMP

: S[G V[; P VG[S]DFZL JLP (2003) V[I MU äZF jI ISTGL IRTFDA 38FOM
YFI K[S[S]D T[HF6JFGA C[T]YL IGNX'DFA S], 30 jI ISTVMG[, . 12 V9JFI0I F ; WL
I MUJL TF, LD VF5L4 TF, LDFYL'VMG[I MU IX1FS äZF V9JFI0I FGF +6 S, FS ; WL
I MUJ] 5|X1F6 5]- 5F0JFDF VFJT]CT]P I MU SFI 'SD 5C[, F IGNX" TZLS[, UFI [,
jI ISTVMDFBA H IRTFGM VG]EJ YI M CTMP I MU TF, LD VF%I F AFN ; XMSMV[I MU
5J] VG[tI FZAFN TF, LDFYL'VMDF VG]EJFTL IRTFGL ; ZBF6L SZL CTL4 3 DF; GL
IGI DLT TF, LD AFN DF, D 50I]S] IGI DLT ZLT[I MU SZGFZGL IRTFDA 62% H[8, M
38FOM GMVFI M CTMP

; [G U]TF4 A[GZÒ (2001 Jodhpur) äZF SZJFDF VFJ[, VeIF; GM C[T]
I MU TF, LDGL IRTF 5Z ; FY'S V; Z YFI K[S[S]D T[GL HF6SFZL D/JJFGM CTMP VF
DF8[IGNX" TZLS[60 5]-QFMG[5; N SZJFDF VFjI FP VG[T]DF 30-30 GF U] 5FOL
5YD U]G[6 V9JFI0I FGL I MUJL TF, LD VF5JFDF VFJL4 HI FZ[ALHF U]GFA
5]-QFMG[VF ; DI NZIDI FG JM, LAM, GL ZDT ZDF0JFDF VFJLP TF, LD 5J] VG[
TF, LD AFN YI[, OZOFZGL RSF; 6L SZTF HF6JF D?I]S] I MUJL TF, LD , LW[, F
5YD ; D]CGFA 5]-QFMDF\5IZI:YITHgI v5|U8IRTFDA 38FOM YI M CTMP HI FZ[
JM, LAM, GL ZDT ZDTF ALHF ; D]CGFA 30 5]-QFMGL XFZLIZS 1FDTFDF JWFZM YI M CTMP

VXMS KFAOF (1998) V[T]GFA VeIF; DA 133 jI ISTVMG[IGNX" TZLS[
5; N SZL T[VMG[A[; D]CDFAIJEFIHT SZJFDF VFjI FP 5YD ; D]CG[I MUJL 5[8LS,

TF, LD VF5JFDF\VFJL4 HI FZ[ALHF ; D]CG[I MJG\OST IYI MZL8LS, 7FG VF5JFDF\ VFjI P AgG[; D]CGF jI ISTVMGL TF, LD 5C[F VG[TF, LD AFN IRTFGL RSF; 6L **State Trait Anxiety Inventory** äFZF SZJFDF\VFJL CTLP 5IZ6FD NXF]J[K[S] AgG[5]SFZGL TF, LD äFZF jI ISTGL 5IZI:YITHgI v5]U8IJSITIRTFDF\ 38FOM YFI K] 5ZT] I MJG\ 7FG CMI VG[5wWIT; ZGL 5]S8LS, TF, LD IRTFG[JWFZ[V; Z SZ[K]P

U]TFGLWL4 BZ` J[TF4 ZtG XDF" VG[VFZPV[, P ALH, F6L (2006) **Department of Psychology, New Delhi**) GF\ VeIF; GM C[T] I MJGL IRTF 5Z X] V; Z YFI K[T[T5F; JFGM CTMP VF VeIF; VM, . IgOIF D]OS, ; FI g; . g:8L8I]BGM V]S IJEFU S] H[. g8LU], C]Y IS, IGS K] T]DFA CFY WZJFDF\VFjI M CTMP VF DF8[IRTFU]:T jI ISTVMG[**10** INJ; ;]WL I MJ VFWFIZT IO<D4 jI ISTUT DFUNX'G4 N]GS ÖJGDF\ I MJG\DC- J4 VF; G4 5]6FI FD4 jI ISTUT DFUNX'G4 IRTF ; FY[; DFIMHG4 V]SFU]TF DF\ JWFZM JUZ[H]]5IZ1F6 VF5JFDF\VFjI] VG[TF, LD 5]] VG[TF, LD AFNG\ IRTFGF\U]6F]SGL ; ZBFD6L SZJFDF\VFJL4 5IZ6FDD\HMUF D?I] S] 5]U8 IJSTIRTF TF, LD 5C[F JW]HMUF D/L4 HI FZ[TF, LD AFN ; FY'S ZLT[VMKL HMUF D/L CTLP **10** INJ; GL I MJGL TF, LD äFZF 56 IRTFGL , F1F16STDF\ ; FY'S ZLT[38FOMHM. XSFI K]P

V]jI], ZL4 V]5[. g; (1998), **Uni.of California**) V[IRTFU]:T I]JFGM 5Z I MJGL V; Z YFI K[S[GIC T]GL HF6SFZL D/]JF DF8[**18** YL **20** JQFGL JI GF\ I]JFGM S] H]MM :J]rKS ZLT[VF VeIF; DF\ HMDFJF . rKTF CTF T]DH DFGI; S IRFA VG]EJTF CTF VG[SM. 56 5]SFZGL DGMU{7FIGS ; FZJFZ , LW[L G CTL S] I MJGM VG]EJ G CTM T]VMG[IGNX"TZLS[5; N SZL TF, LD V]TU" 5 V9JFI0IF ;]WL NZZMH V]S S, FS ;]WL I MJIX1FS äFZF TF, LDFYL'VMG[I MJG\ IX1F6 VF5JFDF\VFjI] VG[tI FZAFN TF, LDFYL'VMG[5]U8 IJSTIRTF VG[5IZI:YITHgI IRTFGL 5] GFJ, L VF5LP 5IZ6FD NXF]J[K[S] 5 V9JFI0IFGL TF, LD AFN TF, LDFYL'VMG[5]U8IJSITIRTF VG[

5IZI:YITHgI IRTFDFA\38FOM HMUF D?IMP I MUJL V; Z TF, LD NZdI FG H VGJEJF.
CTLP VFD4 T\MMGF\ VeIF; YL :508 YFI K[S# IGI IDT I MU 5\$8L; YL IRTFDFA
38FOM YFI KP

; FC; L ÖP DMCG OLP VG[S\$SZ (1989, Journal of Personality &
Clinical Studies) äZF SZJFDA VFJ[, VeIF; GM C[T] VITIRTFGM VGJEJ SZTF
NNL'DFA I MU 5wWIT VG[NJF äZF ; FZJFZGL V; Z T5F; JFGM CTMP T\MM[18 YL 47
JQFGL 20 jI ISTVMG[IGNX"TZLS[5; N SZL T\MMG[3 DF; ; \ML V9JFI0I FGF\5 INJ;
I MUJL TF, LD VF5JFDA VFJL CTLP TF, LD 5\]' VG[TF, LD AFN TF, LDFYLVNGL
; ZBFD6L SZJFDA VFJLP 5IZ6FDM NXFJ[K[S# H[TF, LDFYLVMM[; 5)6"ZLT[3
DF; GL I MU TF, LD 5)6"SZL CTLP T\MMDF\ BF; SZLG[5IZI:YITHgI IRTFDFA\38FOM
HMUF D?I MCTM VG[T\GL ; ZBFD6L IGNX" 5Z I MU TF, LD 5\]'p5I MU SZ[, NJF
äZF ; FZJFZ ; FY[SZJFDA VFJTF H6FI\ S# 0#J YZF5L SZTF I MU YZF5L VIT
IRTFDA\38FOM SZJF S[IRTFG[IGI V+T SZJFDA\JW] V; ZSFZS IGJ0[KP

IS\$Jp4 ZLRF0"; G VG[5L, ISg; 8[G (2005) GF\ VeIF; GM C[T] I MUJL
IRTF VIGI V+TTF 5Z X\]V; Z YFI K[T[T5F; JFGM CTMP VF ; \MMGDA I MUGA
VFTZ ZF08#I ; U9GM I MU 5\X1FSM VG[AFIM D\OS, 8#8 5F; \YL DMBFEFUGL
DFICTL V\$9L SZJFDA VFJL CTLP VF DF8[I MU 5Z YI[, F VeIF; MG[wI FGDFA , \JFDA
VFjIF CTFP H[D S# I MUJL 5IZI:YITHgI IRTF T\DH 5\U8 IJSTIRTF 5Z X\]V; Z
YFI K[m VF AWF VeIF; MDFYL S#, FS V\JF VeIF; M CTF S# OST wI FG SZTF
I MUJL IJ\JW D\$FGL IGI DLT 5\$8L; äZF IRTFDFA 38FOM HMUF D/[KP

S\$], F VG[0A\hLVM(2007) V[5MTEGF\VeIF; DF\25 V\JF jI ISTVMG[
IGNX"TZLS[5; N SIF" S# H\MM :J\#rKS ZLT[VF SFI 'S\DDFA HMDFI F CTFP VF VeIF;
V\TU"TF, LDFYLVNGL INJ; DFA[JBT 15 IDIG8 ; \ML wI FGGL 5\$8L; SZJFGL CTLP
V9JFI0I FGF\ VF SFI 'S\DDFA :5L, AUZGL State Trait Anxiety Inventory äZF 25

TF, LDFYLVMM 5F; YL IRVTF VUJGL DFICTL D/JJFDF VEFJL CTLP HJDF VF 5§8L; X~
SIFGA VF9 V9JFIOIF 5C, F TPDH 5§8L; X~ SIFGF YMOF S, FS 5C, F VG[
tIFZAFN V§ V9JFIOIF VG[A[V9JFIOIF 5KL TF, LDFYLVMM 5F; YL DFICTL V§9L
SZJFDF VEFJL CTLP 5IZ6FD NXFJ] K[S[5IZI:YITHgI IRVTFGF UJ6FS S# H[5§18;
X~ SIFGF YMOF S, FS VUFp CTF T[VG[5§8L; 5KLGf TZTGF UJ6FS JrR[; FYS
TOFJT HMJF D?IMG CTM HI FZ[5§8L; GA YMOF V9JFIOIF AFN VG[5§8L; GFA[
V9JFIOIF AFN DC+JGM TOFJT HMJF D?IMCTMP

5[, Z4 ; JADgI F VG[8, Z (2007) GA VeIF; DA 51 5]-OFNG[IGNX"
TZLS[5; N SZL 22 IDIG8 ; JML wIFGGL 5§8L; TPDH ; JF; GGL I:YIT TPDH JrR[
JrR[IZ, §; J; GGL I:YIT äFZF I MUJGL 5§8L; SZFJJFDF VEFJL4 4 V9JFIOIF ; JML VF
SFI 'SD RF, JZFBJFDF VFjI MP I MUJGL 5§8L; 5C, F VG[5§8L; SIF"AFN TF, LDFYL"
VMGL 5IZI:YITHgI IRVTFGAUJ6FSGGL ; ZBFD6L SZJFDF VEFJLP 5IZ6FD NXFJ] K[
S# I MUJGL TF, LD AFN TF, LDFYLVNGL 5IZI:YITHgI IRVTFDA 38FOM HMJF D?IM
CTMP I MUJGL IJIJW D§F V§, [S# VF; G4 TDF BF; SZLG[; JF; G VG[wIFG Sg§Lv
SZ6GL IDIZT 5wWIT äFZF TZT H 5IZI:YITHgI IRVTFDA 38FOM HMJF D?IMCTMP

8FCLGL V[, VG[C]IRg; (2000) GA VeIF; GM C[T]wIFG VG[IZ, §; J; G
GL TF, LDGL V; Z 5IZI:YITHgI IRVTF 5Z YFI K[S[SD TGL HF6SFZL D/JJFGM
CTMP VF VeIF; VTUT T[6[IGNXDA 34 VJF I JFGM 5; N SIF" H# E6JFDFGJ]
XLBJFGL VGVFJOTYL 5LOFTF CTF VG[5 V9JFIOIFGL TF, LD VF5JFDF VEFJLP
TF, LD AFN YI[, F ; JDF GMMFI]S# AWF H TF, LDFYLVMDA 5IZI:YITHgI IRVTFDA
38FOM HMJF D?IMP VF VeIF; :508 ZLT[NXFJ] K[S# I MU VG[wIFGYL IRVTFDA
38FOM YFI KP

. %, [V§ VM, (1989) GF VeIF; GM C[T] I MUJGL 5IZI:YITHgI IRVTF 5Z
SjL V; Z YFI K[T]VUJGL HF6SFZL D/JJFGMCTM TGF VeIF; GATFZ6M NXFJ]

K[S[wI FG VG[VF; GYL IRTFDA 38FOM HMUF D/[KP

:8[58M. VG[S[J: , [(1990) GF VeIF; GM C[T] wI FGGL IRTF 5Z V; Z YFI K[S[S[D T[HF6JFGM CTMP VF DF8[T[6[340 wI FG SZTL jI ISTVMGF IGNX" TZLS[5; N SZL 5IZ6FD NXFJ[K[S[wI FG SZTL jI ISTVMDA[IRTFG] 5[DF6 JWfZ[HMUF D/[KP

AF. DG V[B VM, (1996) GF VeIF; DA 52 TF, LDFYL'VMG[: JvIZ, [; [; G GL YZF5L äZF TF, LD VF5JFDA VFJLP T[VMG] D[I FSG TF, LD 5C[F VG[TF, LD AFN SZJFDA VFjI P 5IZ6FD NXFJ[K[S[TF, LD 5J]'; FDFgI ZLT[TF, LDFYL'VMDA 5J]TTL IRTF SZTA TF, LD AFN IRTFDA 38FOM HMUF D?I M CTMP

:8[PLVZ 8LPVP VG[jCL, Z (2004) äZF SZJFDA VFJ[, VeIF; GM C[T] I MUJL IRTF 5Z V; Z YFI K[S[S[D T[GL HF6SFZL D[/JJFGM CTMP T[6[5MTEGA VeIF; DA IGNX" TZLS[SM, HDA VeIF; SZTL 24 IJnFYL'VMG[5; N SIFP VF IJnFYLVM S[, LOMG'F I]GJI; '8LDA C9I MJGAS, F; L; GFATF, LDFYL"CTFP I MUJL IJnFYL'VMGL IRTF 5Z V; Z DF5JF DF8[State Trait Anxiety Inventory GM p5I MU TF, LD ; DI GF ALHF V9JFI0I FDA VG[ti FZAFN OZL JBT GJDA V9JFI0I [SZJFDA VFjI M CTMP 5IZ6FD NXFJ[K[S[TF, LDGF ALHF V9JFI0I F SZTF GJDA V9JFI0I [5IZI: YITHgI v5[U8 IJSTIRTFDA 38FOM HMUF D?I M CTMP

OWFP V[, PVF. PE]F6 (2005, 5[M] Z VG[C[04 0L5F8Dg8 VMD I MU ; FI SM, MÖ4 IACFZ I MUF EFZTL) äZF SZJFDA VFJ[, VeIF; DA 102 jI ISTVMS[H[I MU IJnFGA SMOFDA HMOFJF . rKTL CTL T[VMG[IGNX" TZLS[5; N SZJFDA VFjI FP IGNX'DA; DFIJ08 TDFD TF, LDFYL'VMG[; JFZYL ; FH ;]WL SD'I MUJL T[DH I MUGA IJIJW VF; GMGL TF, LD VF5JFDA VFJL CTLP ; FY[; FY[T[VMG[I MU IJQFI S YLI ZL8LS, 5[X1F6 VF5JFDA VFjI] T[DH VFBF INJ; GL INGRIF"DF8[; DI 5+S AGFJJFDA VFjI P VFJL TF, LD 5J] VG[TF, LDAFN TF, LDFYL'VMGL IRTF State Trait

Anxiety Inventory äfZF DF5JFDF\ VFJLP 5IZ6FD NXF"J[K[S# 33% TF, LDFYLVMM JWfZ[5|DF6DF\ IRTF VG|EJTF CTFP 33% TF, LDFYLVMM BJA VMKF 5|DF6DF\ IRTF VG|EJTF CTFP 5ZT[TF, LDAFN AgG[; D]CGL IRTFDF\ DC-rJGM 38FOM YIMP IMUS ÖJGWfZF äfZF IRTFDF\ 38FOM Y. XS[K# T]DH GSFZFtDS , FU6LVM 56 38[KP

2.3 IMU VG[DGMU{7FIGS ; }BFSFZL VUJGF VeIF; Mo

s; gIF; LWD'NJ 2004 ; tIFGN IMU V\$PDLf äfZF SZJFDF\ VFJ[, VeIF; DF\ IMUGL 5\$8LS, TF, LD VG[5|X1F6GL jI ISTGL DGMU{7FIGS ; }BFSFZL 5Z S]L V; Z YFI K[T[HF6JFG\ C[T]YL ; tIFGN IMU V\$PDLG\ 5 DF; G\ IMU SMDFDF\ HMOFJF . rKTL jI ISTGL IGNX"TZLS[5; NUL SZJFDF\ VFJL CTLP VF SMDFGL X~VFDF\ TF, LDFYLVMG[5C[, F\A[V9JFI0IF ;]ML ; tIFGN V\$PDLDF\ZCLG[H p0F65J'SGL IMUGL 5\$8LS, T]DH YLIZLGL ; DH VF5JFDF\ VFJLP tIFZAFN TF, LDFYLVMG[3Z 5\$8L; SZJFGL CTL4 5FR DF; GF VF SMDF"AFN TF, LD ; D]CGL DGMU{7FIGS ; }BFSFZLGL ; ZBFD6L ; tIFGN V\$PDLDF\GJF NFB, YI[, F IMU SMDFDF\ HMOFJF . rKTF jI ISTVM ; FY[SZJFDF\ VFJL S# H]MM[IMU TF, LD , LWL G CTLP 5IZ6FD NXF"J[K[S# TF, LDFYLVMMGM V[; D]C S# H]6[A[V9JFI0IFGL 5FYIDS TF, LD , LWL CTL VG[tIFZAFN 56 IGI DLT IMU SZTF CTF T]VMGL DGMU{7FIGS ; }BFSFZL S# H]MM IMU SZTF G CTF T]GF SZTF\ ; FY'S ZLT[JW] HMUF D/L CTLP

DF. S, ; [G VP UM; D[G4 VSL, 4 , [GUMB4 ; [DG4 OMAZ4 (GJ#AZ 2005, I); AU" VUJG I]GJI; '8L4 HD'GLf äfZF SZJFDF\ VFJ[, F VF ; XMWGGM C[T] IMUGL 5\$8L; GL DGMU{7FIGS ; }BFSFZL 5Z S]L ZLT[V; Z YFI K[T]GL HF6SFZL D]/JJFGM CTLP IGNX"TZLS[24 :+LVMS# H]MM:J]rKS ZLT[VF ; XMWGDF\ EFU ,]F . rKTL CTL T]GL 5; NUL SZF. CTLP VF :+LVML p'DZ ; Z]F; 38 JOFGL CTLP IMU TF, LDDF\12 V9JFI0IF DF8[NZZMH 90 IDIG8 DF8[IMU S, F; G\ VFIMHG SZJFDF\ VFJL]CTP VF TF, LD SMDFDF\ IMUGL V[D]SFVMG[S]g\$T SZJFDF\ VFJL CTL S# H]GF

§FZF DGMU{7FIGS ; }BFSFZLDA JWfZM YFI P TF, LDDA 5YD **16** :+LVMG[I MUGL
TF, LD VF5JFDF\VFJL CTL VG[AFSLGL **8** :+LVMG[ALHF TASSFDF\ TF, LD VF5JFG\
GSSL YI \CT]P HYL 5C, F ; D]CGL :+LVMGL DGMU{7FIGS ; }BFSFZL ; FY[ALHF
; D]CGL :+LVMGL ; ZBFD6L SZL XSFIP 5IZ6FD NXF]J[K[S# I MU TF, LD ,]FGL
AFSL CTL T]L :+LVMGL DGMU{7FIGS ; }BFSFZL I MU TF, LD , LW, L :+LVMGL
; ZBFD6LDA36L VMKL HMUF D/L CTIP

CF; D[G 5LP4 SM. j I], F V[GP sHFgI]VFZL4 **2000**) GA VeIF; GM C[T]
IGI IDT wIFG VG[VF; G H]L I MUIS]I FGL V; Z DGMU{7FIGS ; }BFSFZL 5Z YFI K[
S[S]D m T]GL HF6SFZL D/]JJFGM CTMP T]D6[S], **3403 (1856** :+LVMVG[**1547**
5]-QFM j I ISTVM S# T]GL p]DZ **25** YL **64** JQF" JrR[GL CTL T]VMG[IGNX"TZLS[5; N
SZJFDF\VFjI FP 5IZ6FD NXF]J[K[S# H[, MSM I MU SZTF H GYL VYJF TM VIGI IDT
SZ[K[T]VMGL ; ZBFD6LDA H[, MSM IGI DLT wIFG VG[5]6FI FD SZ[K[T]VMDFGI; S
:J:YTFGM VG]EJ SZ[K[VG[; FDFÒS TFNFtdI T]DH VG[S], G ; FW[K# H[j I ISTG[
DGMU{7FIGS ; }BFSFZL TZ0 , . HFI KP

:JFDLIGZHFGN ; Z:JTL (**1996**, IACFZ I MUJ EFZTLF GADFUNX'G
C9/ I MHFI], VF ; XMWG VTU" IACFZGL **24** H[DA ZC, F **1140** S]NLVM 5Z
V]S ; J[SZJFDF\VFjI M CTMP VF S]NLVMG[I MUGL TF, LD **15** INJ; GA V]S V]JF +6
TASSFDF\ 5]ZL 5F0JFDF\VFJL CTIP VeIF; 5]J[VG[tI FZAFNGL DFICTL NXF]J[K[S#
H[S]NLVM[VF TF, LD , LW, CTL T]VMGL GSFZfDS , FU6LVM H]L S# U]; ; M TF64
VFTIZS ; WQF# VftDctI FGFIJRfZM JUZ]DF\38FOM YI M CTMP VF SFI 'S]DYL pt; FICT
YI], IACFZ ; ZSFZ[IACFZGL **82** H[DA IGI DLT ZLT[I MU TF, LD VF5JFG\ GSSL SI]
VG[IACFZGL I MU :S], GA ; gIF; L äZF I MUJX1F6GL TF, LD VF5JFDF\VFJLP VF
TF, LD AFNGF\VeIF; M NXF]J[K[S# I MU TF, LDYL j I ISTGL DGMU{7FIGS ; }BFSFZLDA
JWFZM HMUF D/[KP

Verma (1988) (Journal of clinical Psychology) ; V[DFGI; S
VFZMuI GL Deuel factor theory VF5[, KP HGF DT DHA 5IZA/M S[5IZI:YIT
 H[CSFZftDS S[GSFZftDS DFGI; S VFZMuI WZFJ[K[T[HJNL KP Sß, FS RMSS;
 5IZA/M S[H[GSFZftDS AFATM DF8[SFZ6E]T K[T[SI FZ]I CSFZftDS DFGI; S
 VFZMuI TZO NMZL HTF GYL4 5ZT] I MUS ÖJGX{ L V[CSFZftDS AFATMDFgI TF
 WZFJL VG[DGMU{7FIGS ;]BFSFZL IJS; FJJFDF\ DNN SZ[K[VG[T]GF äZF CSFZftDS
 , FU6LVMM ;]B VG[; TMDFA JWfZM YFI K[H[jI ISTGL DFGI; S :J:YTFDF\ JWfZM
 SZL DFGI; S I:YZTF HF/JL ZFBL VG[jI ISTGL DGMU{7FIGS ;]BFSFZLDA JWfZM
 SZ[KP

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Well-being in elderly men & women Indian journal of clinical Psychology
23, äZF SZJFDF\ VFJ[, VeIF; GM C[T] jI ISTGFA ; FDFÖS VFWFZGL V; Z
 DGMU{7FIGS ;]BFSFZL 5Z YFI K[S[S]D T]GL HF6SFZL D/JJFGM CTMP 5IZ6FD NXFJ]
 K[S] jI ISTDF\ HD ; FDFIHS VFWFZ JWfZ[CMI T]D DGMU{7FIGS ;]BFSFZLG\ 5]DF6
 JW] HMUF D?I]CTP

JL, P4 OLP :S], L4 HP S]DZ (1993) sIohLS, Vß; Z; F. h Vg0
 ; FI MSM, MÖS, J[, AL. Uf äZF SZJFDF\ VFJ[, VeIF; GM C[T] XFZLIZS S; ZTGL
 DGMU{7FIGS ;]BFSFZL 5Z V; Z YFI K[S[S]D T]GL HF6SFZL D/JJFGM CTMP
 T]VMGF VeIF; DF\ 6 DF; YL IGI IDT XFZLIZS S; ZT SZTF 25 jI ISTVMG]
 DGMU{7FIGS ;]BFSFZLGL 5] GFJ, L VF5JFDF\ VFJLP 5IZ6FDDFA HMUF D?I]S] S; ZT
 5C[F VG[S; ZT 5KLG L DGMU{7FIGS ;]BFSFZLDA ; FYS TOFJT HMUF D?I MCTMP

EMU, [VG[5]SFX4 I; CF VG[JDF" (1995) äZF XMWJFDF\ VFJ I] S] S]
 DGMU{7FIGS ;]BFSFZLDA 13 5IZA/MGM ; DFJX YFI KP H]MGL DGMU{7FIGS
 ;]BFSFZL prRS1FFGL CMI T]MDF\ OST :JvbIF, 4 ÖJG ; TMDFA CSFZftDS

IJRFZMVG[J, 6 TPDH , FU6LVM H GYL CMTF4 5ZIT]TVMGSFZfDS J, 64 IRTF4
IJRFZMG[JW] ; FZL ZLT[IGI 6DF\ZFB L XS[K[VG[I MUGL 5S8L; YL DGMU{7FIGS
; JBSFZLDF\JWFZM Y. XS[KP

;], TFG (1996) GF DT DJHA DGMU{7FIGS ; JBSFZLV[jI ISTGL VFJOT S[
XIST DF5JFG\ 5IZA/ H GYL4 5ZIT] ÖJGG[JW] VY5)6" VG[C[T], 1FL AGFJT\
5IZA/ KP DGMU{7FIGS ; JBSFZLDF\JWFZM SZJF I MU V§ 5L9A/ TZLS[SFI "SZ[KP

Hj; SZDMOL VG[~Y (2004, 0L5F8Dg8 VMD ; FI SM, MÒ4 I JGP VMD
Kentucky (U.S.A.) äFZF SZJFDF\ VFJ[, VeIF; GM C[T] I MUGL DGMU{7FIGS
; JBSFZL 5Z ; FY'S V; Z YFI K[S[SD TGL HF6SFZL D/JJFGM CTMP T\MGFA
VeIF; DF\ IGNX" TZLS[174 5pTJI GF\ I JFGMGL 5; NUL SZJFDF\ VFJL CTLP
IGNX'DF\ ; DFIJQ8 I JFGMG[8 V9JFI0I F ; JWL I MUGL TF, LD VF5JFDF\ VFJL I MU
TF, LD 5C[, F VG[I MU TF, LD 5KLG L T\MGL DGMU{7FIGS ; JBSFZLGL ; ZBFD6L
SZJFDF\ VFJLP 5IZ6FD NXF"J[K[S\ I MUGL TF, LD , LWF AFN I JFGMGL DGMU{7FIGS
; JBSFZLDF\ ; JWFZM HMJF D?I MCTMP

. JFG GI SI, S (2007, 0L5F8Dg8 VMD ; FI SM, MÒ4 TL, AU" I JGJI; '8LF
äFZF SZJFDF\ VFJ[, VeIF; GM C[T] I MUGL DGMU{7FIGS ; JBSFZL 5Z YTL V; Z
T5F; JFGM CTMP T\MGF VeIF; DF\ 60 jI ISTVMGL IGNX" TZLS[5; NUL SZJFDF\
VFJLP I MUTF, LD 5)J[AWF H TF, LDFYLVMG[DGMU{7FIGS ; JBSFZLGL 5] GFJ, L
VF5JFDF\ VFJLP tIFZAFN VF TF, LDFYLVMG[A[; D)CDF\JC[RJFDF\ VFJLP V§
; D)CG[I MUTF, LD VF5JFDF\ VFJL VG[ALHF ; D)CG[J]. 8LU, L: 8DF\ZFB JFDF\
VFJLP 15 jI ISTVMGF TF, LD ; D)CG[VF9 V9JFI0I FGL TF, LD S\ H)DF\ NZZMHGF\
150 IDGL8 I MUG\ 5S8LS, TPDH YLI ZBLS, IX1F6 VF5JFDF\ VFJLP VG[T\MG[
NZZMH 3Z[40 IDGL8GL 5S8L; SZJFG\ ; RG SZJFDF\ VFJLP VF9 V9JFI0I FGL
TF, LD AFN TF, LD VF5[, ; D)C VG[J]. 8LU, L: 8GF\ D)CGL 5F; [OZLYL DGMU{7FIGS

; JBFSFZL ; AAWT 5| GFJ, L EZFJJFDF VEFJP 5IZ6FDDF HMUF D?I\ S# I MUJL
TF, LD , LW| ; D)CGFjI ISTVMDF TF, LD AFN DGMU{7FIGS ; JBFSFZLDF ; FY'S ZLT[
JWFZM HMUF D?I M CTM HI FZ[J|. 8LU, L:8DF ZC| jI ISTVM S# H[G[CH] I MUJL
TF, LD , LWL G CTL T\VMGL DGMU{7FIGS ; JBFSFZLDF TOFJT H6FI M G CTMP VF
VeIF; YL :508 YFI K[S# 5wWIT; ZGL I MUJL 5|tI 1F 5|S8L; VG[IYI ZLGA
5|X1F6 äZF DGMU{7FIGS ; JBFSFZLDF JWFZM HMUF D/[KP

D)BM5FwI FI 4 V; GFGL4 TMDZ4 5|; FN VFZP4 9FSZ V| P VG[; [JFD]IT"
0A<I P (2003), GF VeIF; GM C[T] IGI DLT I MUJL DGMU{7FIGS ; JBFSFZL 5Z
; FY'S V; Z YFI K[S[S]D T[GL HF6SFZL D/[JJFGM CTMP T\VM[IGNX"TZLS[20 YL 25
JOF'GL JI GF 54 TF, LDFYL'VMG[A[; D)CDFAJC(rI M 1) I MU ; D)C 2) I MU G SZTF
; D)C4 I MU ; D)CDF\ 23 5|~QFM VG[5 :+LVMG[5 DF; ;]WL I MUJL TF, LD VF5JFDF
VEJL4 HI FZ[ALHM ; D)C S[H]DF\ 21 5|~QFM VG[5 :+LVMG[VF ; DI NZdI FG I MUJL
SM. H TF, LD S[5|S8L; SZL G CTIP I MU ; D)CGF\ jI ISTVMG[6 YL 10 DF; ;]WL
I MUJL 3Z[H 5|S8L; SZJF N)JFDF VEFJP5IZ6FD NXFJ[K[S# 10 DF; GL IGI DLT
I MUJL 5|S8L; äZF jI ISTGL DGMU{7FIGS ; JBFSFZLDF ; JWFZM HMUF D?I M CTMP

ISdA, L4 AMGZF VG[A]Y[GL (2006, 0, MZOF :8B I)GJI; '8lf V[50 YL 70
JOF'GL p'DZGF 98 jI ISTVMGL IGNX"TZLS[5; NUL SZL T\VMG[V9JFI0I FDF V\$ JBT
45 IDGL8GM ; ; G V)JF K V9JFI0I F ;]WL TF, LD VF5L 3Z[5|S8L; SZJF SCI P AWF
H TF, LDFYL'VMGL TF, LD 5C| F VG[TF, LD AFN SZFI |, 5| GFJ, L 5ZYL HF6JF
D?I\ S# IGI DLT I MU äZF jI IST :JIGI\+6 SZL XS[K[VG[T)GFYL DFGI; S
; JBFSFZLDF JWFZM YFI KP

HMG; 4 DF8L'G4 VMA[GL4 S]ZM, sDFR'4 2004, HGZ, VMD D)g8, CkY
5|DIXGf4 I05F8'D)g8 VMD CkYV[AFATG[DC-J VF5[K[S# I MUvS; ZT V[DFGI; S
; JBFSFZL DF8[V\$ VUtI GL 5|P'g KP I MUvwI FG äZF IRTF VG[CTFXFDF\38FOM

YFI KÄ HGFYL jI ISTGL DGM:YITDA ; JWFZM HMUF D/[KP VF p5ZAT IGI DLT
wIFGvIMU äZF XFZLIZS ; D:IF pNÿEJJFG\HMBD 56 38L HFI KP VF p5ZAT
ÖJGGLUJ6J;FDA ; JWFZM YFI KP VF AWF H 5IZA/M jI ISTGL DGMJ{7FIGS
; JBSFZLDAJWFZM SZ| KP

XLZFH4 CFNL VGP (OL5F8Dg8 VMO SMIGL8L D|0; LG4 XLZFH D|OS,
:S|, 4XLZFH4 **2005**). VF VeIF; VTU" I MUGL jI ISTVMGL DGMJ{7FIGS
; JBSFZL 5Z X\ V; Z YFI K|T|RSF; JF DF8|**107** jI ISTVMsH|DA**44** 5|~QFM VG|**34**
:+LVMF :J|rKS ZLT|VeIF; DA HMDFI F CTFP T|VMGL ; ZZF; pDZ **34** JQF"GL CTL4
T|MM| K DF; ; M| I MUGF S, F; SIF"CTFP T|MM| I MUGL 5|S8L; SIF"5C| F VG|
I MU S, F; SIF"AFN 5|GFJ, L EZL CTLP pDZ4 HFIT4 IX1F6GL S1FFVM JrR|
; FDFgl ZLT| DCrJGM TOFJT HMUF D?I M G CTM 5ZT| VFZM| ; A|WT 5IZA/M
JrR| DCrJGM ; JWFZM HMUF D?I M CTMP TFZ6 V|HMUF D?I\ SÄ I MU äZF DFGI; S
T|DH XFZLIZS VFZM| DA ; JWFZM YFI KÄ HGF äZF jI ISTGL DGMJ{7FIGS
; JBSFZLDA56 JWFZMYFI KP

HP VDP ~:BG|GP4 VF. P ZF5L, F (**1997**, I|GJI; '8L VMO HAFSIF, F4
IOG, g0) VF VeIF; GM C|T|XFZLIZS S; ZTGL DGMJ{7FIGS ; JBSFZL 5Z YTL V; ZGL
HF6SFZL D|JJFGM CTMP VF VeIF; VTU" IOG, g0DA J; TF VG|**1904-1913**
T|DH **1914-1923** GF\ ; DI UF/F NZIDI FG HgD|, F **1600** jI ISTVM SÄ H|GL pDZ **64**
YL **84** JQF" JrR|GL CTL T|MMG|IGNX" TZLS| , . VG|**1988** DA VF VeIF; SZJFDA
VFjI M CTMP H|DFYL 5| GMTZLDA **1244** , MSM| ; IS| EFU , LWM CTMP BF; SZLG|
:+LVMDA HMUF D?I\ CT|S|pDZ JWTF XFZLIZS S; ZTDA 38FOM HMUF D?I M CTM
50% Hß, L jI ISTVM IGI DLT RF, JFGL S; ZT SZTF CTF HIFZ|**40%** Hß, F , MSM
VXT0 5DF6DA S; ZT SZTF CTFP **10%** Hß, F , MSM N|GSIS|I F I; JFI JWFZFG
S; ZT SZJF ; WG G CTFP VF AWL H jI ISTVMGL DGMJ{7FIGS ; JBSFZLGL RSF; 6L
SZJFDA VFJL CTLP 5IZ6FD NXF"J| K| SÄ XFZLIZS S; ZT ; FY| ; S/FI| , MSMGL
DGMJ{7FIGS ; JBSFZL JWFZ| CTLP

ZMHZU|CFD (2004, V<:8Z SMI JGL8L Vg0 CM:58, 8÷84 GMY'G . Z, g04 HGZ, VMD CkY ; FI SM, M04Vol.13) VF VeIF; VTU'T Sg; Z4 OFI FAL8L; CD, F JUZ[HJL IADFZLYL 5LOFTF>NNL'VM 5Z I MU SZJFYL TGL DGMU{7FIGS ; JBFSFZL 5Z X\ V; Z YFI K[TGL RSF; 6L SZJFDA VFJLP VIUI FZ>NNL'VM S# H[VEFJL ; D:IFYL 5LOFTF CTF TMM[K DF; ; ML I MUGL 5wWIT; Z TF, LD , LWLP ti FZAFN TMMG[p0F65J'SGF . g8ZjI] äZF I MUGL V; Z VUJGL HF6SFZL D/JJFDA VFJLP ; FDFgI ZLT[AWF H>NNL'VMDF I MUGL 5S8L; äZF XFZLIZS ; D:IFDA 38FOM HMUF D?IM CTMP VG[; FY[; FY[DGMU{7FIGS ; JBFSFZLDA 56 JWFZM GMMFI M CTMP

DW]SM; JZL (Ph.D. 1 DFR4 2007, . g:8L8I ß VMD I MU Vg0 D|08; G4 IJXFBF58GDvEFZTF GF ; XMWG VeIF; GM C[T] OFI FAL8L; GF>NNL'VMGL DGMU{7FIGS ; JBFSFZL 5Z I MUGL V; Z DF5JFGM CTMP VF . g:8L8I ßGL VNZ H 40 INJ; GF VS I MU S#5G\ VFI MHG SZJFDA VFJL]CTP HDA35 jI ISTVMM[EFU , LWM CTMP HDG[I MUG\ 5|X1F6 VG[5wWIT; ZGL TF, LD I MUv5|X1FSM äZF VF5JFDA VEFJTL CTLP VF S#5GF VT[>NNL'VMGL DGMU{7FIGS ; JBFSFZLGM VeIF; SZJFDA VFjI M CTM VeIF; GF VT[HMUF D?I] S# DGMU{7FIGS ; JBFSFZLDAJWFZM YIMCTMTDH IRTFG\ 5|DF6 38I]CTP

2.4 VeIF; MGL ; DL1FF 0

I MUGL jI ISTGF XFZLIZS VG[DFGI; S :JF:yi TDH TGL ; DUJÖJGX{ L 5Z AC] DMBL V; ZM HMUF D/[KP I MUGL 5IZI:YITHgI v5|U8IJST IRTF 5Z V; Z VUJGF VeIF; MDAHMUF D/[K[S# IGI DLT I MUGL IJIJW 8SIGSM HJL S# VF; G4 wI FG4 5F6FI FD4 IJIJW DäFVMS; ZTM SZJFYL 5IZI:YITHgI IRTFDA 38FOM HMUF D/[K# , FAF ; DI YL I MUISI F SZTF jI ISTGL 5|U8vIJSTIRTFDA 56 38FOM HMUF D/[KP 5|U8vIJST IRTFV[:JEFJUT S[D/E]T IRTF CMUF KTA 56 IGI DLT

I MUJSL FGL V; Z TGF 5Z YFI K[VG[5|U8vIJST IRTFDA 56 38FOM HMJF D/[KP
 I MU VG[DGMJ{7FIGS ; }BFSFZLGF VeIF; M ; RJ[K[S# I MUYL jI ISTGFA
 XFZLIZS VG[DFGI; S :JF:yI DfA ; }WFZM YFI K# jI ISTGM VftD; V D JW[K# VF AWF
 5IZA/M jI ISTG[DGMJ{7FIGS ; }BFSFZL TZ0 , . HFI K# I MU DGG[DFGI; S D}HJ6
 DFYL ACFZ , FJ[K[I MUJL DGMJ{7FIGS ; }BFSFZL 5Z YTL V; Z NZS jI ISTV[
 V, UvV, U CMI KP SFZ6 S# T[jI IST I MUDA S# , M ; DFJQ8 K[TGF 5Z VFWFZ
 ZFB[KP I MUJL S; ZT DFGI; S :0)T"A1F[KP I MUJL DGMJ{7FIGS ; }BFSFZL 5Z YTL
 V; Z VU[GF VeIF; MDA I MUJL TF, LD5J[VG[I MUJL TF, LD D/[jI F AFN I MUJL
 DGMJ{7FIGS ; }BFSFZL 5Z X} V; Z YFI K[T[VU[GF VeIF; MDA HMJF D/[K[S#
 I MU TF, LD 5C[, F jI ISTVMGL DGMJ{7FIGS ; }BFSFZL SZTF I MU TF, LD , LWF AFN
 DGMJ{7FIGS ; }BFSFZLDAJWFZM HMJF D?I M CTMP

DGMJ{7FIGS ; }BFSFZLGL 5IZI:YITHgI v 5|U8IJSTIRTF 5ZGF VeIF; MDA
 HMJF D/TF GYLP

2.5 5}:TJT VeIF; XF DF8[m

I MUJL XFZLIZS :JF:yI 5Z TM V; Z YFI H K# T[VU[36F VeIF; MYI[, F
 KP 5ZT[I MUJL DFGI; S V; Z VU[AC] VeIF; M YI[, F GYL VF p5ZFT I MUJL
 DGMJ{7FIGS ; }BFSFZL 5Z YTL V; Z VU[56 VMKF VeIF; M YIF KP VF AFATG[
 wI FGDA ZFBLG[VF IJQFI 5Z ; XWVG SZJFGM IG6" SIMP

I MUJL 5IZI:YITHgI v5|U8IJSTIRTF VG[DGMJ{7FIGS ; }BFSFZL 5Z YTL
 V; Z VU[H[VeIF; M YIF KP TDA I MU SZTL jI ISTVM VG[I MU G SZTL jI ISTVM
 Vp AgGG[; FY[, . G[AC]VMKF VeIF; M YIF KP 5}:TJT ; XWVG VwI I GDA I MU
 SZTL VG[I MU G SZTL jI ISTVM AgGG[; FY[, . G[DGMJ{7FIGS ; }BFSFZL VG[
 5IZI:YITHgI v5|U8IJSTIRTF VU[HF6SFZL D/[JJFGM 5|tG SZJFDA VFjI M KP
 VF p5ZFT I MUJL 5IZI:YITHgI v5|U8IJSTIRTF VG[DGMJ{7FIGS ; }BFSFZL
 5Z YTL V; Z VU[H[VeIF; M YI[, F K[TDA DMBFEFUGFVeIF; M 2 S[3 DF;

VYJF 6 DF; YL I MU SZTL jI ISTVM VU[GF K# HI FZ[5]:TJT ; XMMG VeIF; DF
VMKFDF\VMKF A[JQFYL I MU SZTL CMI TjL jI ISTVMGMH ; DFJX SZJFDF\VFJ[K#
TjL TjL AZFAZ V; Z DF5L XSFI P

DGMU{7FIGS ; }BFSFZLGL 5IZI:YITHgI v5jU8IJST IRTF VU[V\$56 VeIF;
HMJF D?I M GYLP 5]:TJT VwI I GDF\ DGMU{7FIGS ; }BFSFZL VMKL4 DwI D S[JWFZ[
CMI TM TjL V; Z 5IZI:YITHgI v5jU8IJSTIRTF 5Z SjL YFI K# T[HF6JFGM
5jIF; SZJFDF\VFJIM KP

JTDFG ; DI DF\DFGI; S ; D:IFG\5jDF6 INGv5jTING JWT] HFI K# IADFZ
YIF 5KL ; FZJFZ , jL TjGF SZTF IADFZL jI ISTYL Nj H ZC[T[DF8jGMDFU" XMMJFGL
H~Z KP VFHYL CHEZM JQF" 5C[, F DCIQF" 5TH, LV[ATFJ[, I MUJGM DFU" JTDFG
; DIGL XFZLIZS VG[DFGI; S ; D:IFVMDFYL ACFZ VFJJF DF8[pTD ; FIAT Y.
XS[TD KP 5]:TJT VeIF; äZF I MUJGL DGMU{7FIGS ; }BFSFZL VG[5IZI:YITHgI v
5jU8IJSTIRTF 5Z V; Z YFI K[S[S[D m T[HF6JFGM 5jIF; SZL I MU 5Z 5jFX
5F0JFDF\ 5jI tG SIM KP

5|SZ6v 3

; \XWVG GF C[T]VM ; \XWVG I MHGF VG[5|S|] F

3.1 5|:TFJGF

3.2 ; D:IF SYG

3.3 Vwl I GGF C[T]VM

3.4 X|I ptS<5GFVM

3.5 Vwl I GGF\5IZJtI M

3.6 ; \XWVG I MHGF

3.7 IGNX"5; NUL

3.8 DFICTL V|S+LSZ6GF\; FWGM

3.9 DFICTL V|S+LSZ6GL 5|S|] F

3.10 VFSOFXF: +LI 5|I]STVM

3.1 5|:TFJGF

IJ`JGM IJSF; VG[5|UIT ; XMMGGF VFWFZ[YFI KP SM. jI IST S\ GJ\ SZJF DFU[tI FZ[T] ; XMMG TZ0 J/[K[VG[5KL 36L XMM SZ[KP ; XMMG DF8[**Research** XaN J5ZFI K# HGM XFaINS VY"5]Go XMM YFI KP TM VF XaN OZL OZL XMM SZJFGL 5|S| FGM IGNX SZ[KP ; XMWS ; XMMG SZTL JBT[; }D IGZL1F6 SZL VG]DFG AFW[KP TYL **Redman & Mory (1923) define research as a "Systematized effort to gain new knowledge". Research means to Search again.**

NZ\$; XMMGGM SM. G[SM. C[T]CMI KP ; XMMG V[SM. ; Z/ 5|S| F GYL 56 HI8, 5|S| F K# TYL H ; XMMG X~ SZTF 5C, F TG\ jI JI:YT VFI MHG SZJ\ 50[KP ; XMMG SFI'GL X~VFT 5C, F H[~5Z|BF T| FZ SZJFDF\ VFJ[K[TG[; XMMG I MHGF SCJFDF\ VFJ[KP TGL jI FbIF VF5TF SCL XSFI S#cc ; FDFIHS ; XMMG I MHGF V[5IZI:YIT pt5gG YIF 5C, F IG6"IM GSSL SZJFGM V\$ p5SD K[H[IG6"MG[IS| FXL, SZ[KP ; XMMG I MHGF ; VEIJT 5IZI:YITG[IGI +6DF\ ,JFG\ V\$ 5J"v IGWFIZT IG6"MG\ :J~5 K#cc VFD4 ; XMMG I MHGFV[; XMMGG L VFWFZXL, F K[VG[T[; XMWS DF8[INJFNFOLGL UZH ; FZ[KP ; XMMG I MHGF G[; XMMG SZJF DF8[GL a<I }5g8 SC[KP ; XMMGGF C[T]VMG[I; wW SZJF DF8[TG[VG]-5 I MHGF 30JL 50[KP

; XMMG I MHGFDF\ ; XMMG ; D:IFG[VG]-5 C[T]VM TYF ptS<5GFVM VU[IJRFZ SZJFGM ZC[KP VF p5ZFT VwI I GGF\ 5IZJti M IGNX'GL 5; NUL4 DFICTL V\$+LSZ6GF\ ; FWGM TGL I YFY"TF VG[IJ`J; GLI TF T|DH VFSOFXF: +LI 5|I }STv VMGL I Mti 5; NUL JUZ[HJL ; XMMGG L 5FI FGL AFATNGM ; DFJX SZJFDF\ VFJ[KP VFD ; XMMG I MHGF jI JI:YT ZLT[T| FZ SZJFYL ; XMMGGF SFI'G[RMSS; INXF D/[KP ; XMWS VMKF ; DI VG[XISTDF\ JWFZ[DFICTL D[/JL XS[KP ; XMMG I MHGFGL

OFI NF~5 AFAT V[K[S# ; XWWS ; XWVG VFZE 5J] H 5MTFGA, 1I vI; IwWGF
VJZMW~5 AFATMYL ; EFG CMJFYL T[J\$IK<5S DFUM IJX[5C[, YL H IJRFZL XS[K[
VG[VF ZLT[VMKF IJwG[; XWGGFA 1F+G# JW] ; Dww AGFJJF ; XWWS 5MTFGA
I MJNFG VF5L XS[K# TYL H ; XWGGGL I MHGF T[FZ SZJFGL SFDULZLG[VFIS8\$8GL
DSFG DF8GM%, FG T[FZ SZJFGL SFDULZL ; FY[S8, \$ VX[; ZBEJL XSFI P 5]:TJT
; XWGGFA C[T]G[wI FGDA ZFBLG[H[I MHGF GSSL SZL CTL T[VUJGF IJIJW
DNÿFVIMGL RRF"CJ[5KL SZL KP

3.2 ; D: I F SYG

5]:TJT ; XWGDFA DGMJ{7FIGS ; }BFSFZL VG[5IZI:YITHgI 5|U8 IJST
IRTFGM VeIF; I MUS VG[IAGI MUS jI ISTVMGA; NE'DFA SZJFGM 5|IF; SZJFDA
VFjIM KP

DF6; GL SM. 56 5J]ITG)VVTD wI [I TM ; }B 5F1%TG) H K# 5ZT]DFGJLGA
ÒJG V[DF+ 0}, MGL X[I F GYL 56 SF8FVIMYL EZ[, MTFH KP JT'DFG ; DI DFA DFGJL
DGMEFZ4 IRTF4 ; WQF"VG[CTFXF JrR[ÒJ[KP T[5|U8 IJST IRTF (**Trait Anxiety**)
VG[5IZI:YITHgI IRTF (**State Anxiety**) DFYL D]ST YJF VG[DGMJ{7FIGS ; }BFSFZL
D/JJF DF8[; TT OFOF DFZ[K# 5ZAT] ZNÒNL EFUNMO EZL 5IZI:YITDA T]DA 36F
VJZMM VFJ[KP DF6; VF VJZMMGM ; FDGM SZLG[DGMEFZ VG[IRTFDFYL D]ST
YJFGM T]DH DGMJ{7FIGS ; }BFSFZL D/JJFGM DFU"XWV[T[H~ZL KP

XZLZGL VT0: +FJL UYLVMGFA : +FJ ; FY[DFGI; S I:YITGM UF- ; YAW K[V[
CSLST CJ[J{7FIGS ZLT[:JLSFI "U6FI KP VF UYLVMTN]Z:T VG[SFI "FD G CMI
TM T]DGFDFYL : +JTM: +FJ 5]DF6; Z G CMJFYL jI ISTG)DFGI; S :JF:yI HMBDFI
KP V# , [S# jI ISTGA DUHDA RF, TL DFGI; S 5|S| FVM H]JL S# IRTF4 DGMEFZ4
VFJ]U JUZ[VF : +FJDA VJZMW pt5gG SZ[K# TYL jI ISTGL XFZLIZS VG[DFGI; S
TN]Z:TL HMBDDFA D]SFI KP H]GL V; Z jI ISTGL DGMJ{7FIGS ; }BFSFZL T]DH
5IZI:YITHgI 5|U8 IJST IRTF 5Z YTL HMJF D/TL CMI KP H]GF SFZ6[jI IST

ÖJG ; \TMOFGL VG]E]T D[/JJF OFOF DFZ[KP

VFW]GS I]UGL DCtJGL H~ZLI FT V[K[S] DFGJL V]UL ÖJGX{ L V5GFJ] H[GL DNNYL T[5IZI:YITHgI v5]U8IJSTIRTFDFYL D]ST Y. G[DGMU{7FIGS ;]BFSFZL D[/JL XS] YMOF ; DI YL DFGI; S :JF:yI HF/JJF VU[DFUNX'G VF5JF , FIOUS, A4 I MU ;]8Z4 VF8" VMO I, IJU ;]8Z JUZ[VI:TtJDF\ VFjI F KP CHFZM JOF" 5C[F DCIOF" 5TVH, LV[VF5[I MU 5wWITDFAVFHGF\DF6; G[TyI , FUT]CMI TD , FBM DF6; M I MU TZO J?I F K] TDFA BF; SZLG[I MU; GM 5F6FI FD4 D]SFVMA ZL,] ;]XG 8]IGS4 wI FG JUZ]GM p5 I MU SZJFYL XFZLIZS TNZ:TL H/JFI K[T[VU]GF 36F 5Z]FJF D?I F KP XZLZ VG[DG 5Z:5Z ; S/FI[F KP T]YL VCI\ DGMU{7FIGS ;]BFSFZL VG[5IZI:YITHgI 5]U8 IJST IRTF V[AgG[5IZJtI MGF ; NE'DFA I MU SZTF VG[I MU G SZTF jI ISTVMGM VeIF; SZJFGM 5]IF; SI M KP 5]:TJT VeIF; GL ; D:IFG[GLR[5DF6[XaNAwW SZJFDF\VFJL KP

ccI MUS VG[IAGI MUS jI ISTVMGL DGMU{7FIGS ;]BFSFZL VG[5IZI:YITHgI 5]U8IJSTIRTFGM T], GftDS VeIF; Pcc

3.3 VwI I GG\FC[T]VM

5]:TJT VeIF; DF8[GLR]GF C[T]VM GSSL SZJFDF\VFjI F CTFP

1. I MUS VG[IAGI MUS jI ISTVMGL DGMU{7FIGS ;]BFSFZL VG[5IZI:YITHgI 5]U8 IJST IRTF VU[HF6SFZL D[/JJLP
2. I MUS VG[IAGI MUS jI ISTVM DGMU{7FIGS ;]BFSFZL VG[5IZI:YITHgI 5]U8 IJST IRTF VU[IEgGTF WZFJ[K[S[SD T]GF\ VU[HF6SFZL D[/JJLP
3. I MUS VG[IAGI MUS jI ISTVMGL HFIT TDGL DGMU{7FIGS ;]BFSFZL VG[5IZI:YITHgI v5]U8IJSTIRTFG[5]EfiJT SZ[K[S[SD T[VU[HF6SFZL D[/JJLP
4. I MUS VG[IAGI MUS jI ISTVMGL pDZ TDGL DGMU{7FIGS ;]BFSFZL VG[

5IZI:YITHgI v5|U8IJSTIRTFG[5|EFIJT SZ[K[S]D T[VU[HF6SFZL D/JJLP

5. I MUS VG[IAGI MUS jI ISTVM DGMU{7FIGS ; }BFSFZLGA IJIW 38SM VU[IEgGTF WZFJ[K[S]D T[VU[HF6SFZL D/JJLP
6. I MUS VG[IAGI MUS jI ISTVMGL HFIT T|VMGA DGMU{7FIGS ; }BFSFZLGF IJIW 38SMG[5|EFIJT SZ[K[S]D T[VU[HF6SFZL D/JJLP
7. I MUS VG[IAGI MUS jI ISTVMGL pDZ T|VMGA DGMU{7FIGS ; }BFSFZLGA IJIW 38SMG[5|EFIJT SZ[K[S]D T[VU[HF6SFZL D/JJLP
8. I MUS VG[IAGI MUS jI ISTVMGL DGMU{7FIGS ; }BFSFZL VMKl4 Dwl D S[J3] CMI TM T|GL V; Z T|VMGL 5IZI:YITHgI IRTF 5Z YFI K[S]D T[VU[HF6SFZL D/JJLP
9. I MUS VG[IAGI MUS jI ISTVMGL DGMU{7FIGS ; }BFSFZL VMKl4 Dwl D S[JW] CMI TM T|GL V; Z T|VMGL 5|U8 IJST IRTF 5Z YFI K[S]D T[VU[HF6SFZL D/JJLP

3.4 XgI ptS<5GFVM

5]:TJT VeIF; GfC[T|VMG[wI FGDAZFBLG[H[XgI ptS<5GFVMZRJFDfVfJ[, Kq T|GLR[5|DF6[KP

1. I MUS VG[IAGI MUS jI ISTVMGL DGMU{7FIGS ; }BFSFZLGA 5f%TFfSMGF Dwl SM JrR[SM. ; FY'S TOFJT GYLP
2. :+LVM VG[5|~QFMGL DGMU{7FIGS ; }BFSFZLGA 5f%TFfSMGF Dwl SM JrR[SM. ; FY'S TOFJT GYLP
3. H|NLvH|NL pDZ (21 YL 35 JQF? 36 YL 50 JQF? 51 VG[T|YL JW]JQFF WZFJTL jI ISTVMGL DGMU{7FIGS ; }BFSFZLGA 5f%TFfSMGF Dwl SM JrR[SM. ; FY'S TOFJT GYLP
4. jI ISTGM 5|SFZ4jI ISTGL HFIT VG[pD Z G L V F T Z I S | I F G L j I I S T G L

DGMU{7FIGS ; }BFSFZLGF\5F%TF\$MGF DwI SM JrR{SM. ; FY'S TOFJT GYLP

5. I MUS VG[IAGI MUS jI ISTVMGF ; \TMDFGF DGMU{7FIGS ; }BFSFZLGF\38SGF\ 5F%TF\$MGF DwI SM JrR{SM. ; FY'S TOFJT GYLP

6. :+LVM VG[5]-QFMGF ; \TMDFGF\ DGMU{7FIGS ; }BFSFZLGF\38SGF\5F%TF\$MGF DwI SM JrR{SM. ; FY'S TOFJT GYLP

7. HJNLvHJNL pDZ (21 YL 35 JOF⁴ 36 YL 50 JOF⁴ 51 VG[T[YL JW] JOF⁴ WZFJTL jI ISTVMGF ; \TMDFGF\ DGMU{7FIGS ; }BFSFZLGF\5F%TF\$MGF DwI SM JrR{ SM. ; FY'S TOFJT GYLP

8. jI ISTGM 5\$FZ4 jI ISTGL HFIT VG[pDZGL VFTZIS|I FGL T[GF\DGMU{7FIGS ; }BFSFZLGF\38S ; \TMDF 5Z SM. ; FY'S V; Z YTL GYLP

9. I MUS VG[IAGI MUS jI ISTVMGF ; FDFÒS VFWFZGF DGMU{7FIGS ; }BFSFZL GF\38SGF\5F%TF\$MGF DwI SM JrR{SM. ; FY'S TOFJT GYLP

10. :+LVM VG[5]-QFMGF ; FDFÒS VFWFZGF 5F%TF\$MGF\ DwI SM JrR{SM. ; FY'S TOFJT GYLP

11. HJNLvHJNL pDZ (21 YL 35 JOF⁴ 36 YL 50 JOF⁴ 51 VG[T[YL JW] JOF⁴ WZFJTF\ jI ISTVMGF ; FDFÒS VFWFZGF\ DGMU{7FIGS ; }BFSFZLGF\5F%TF\$MGF DwI SM JrR{SM. ; FY'S TOFJT GYLP

12. jI ISTGM 5\$FZ4jI ISTGL HFIT VG[pDZGL VFTZIS|I FGL T[GF\ ; FDFÒS VFWFZGF DGMU{7FIGS ; }BFSFZLGF\38S 5Z SM. ; FY'S V; Z YTL GYLP

13. I MUS VG[IAGI MUS jI ISTVMGF\ VY'IJICGTFGF DGMU{7FIGS ; }BFSFZLGF\ 38SGF\5F%TF\$MGF DwI SM JrR{SM. ; FY'S TOFJT GYLP

14. :+LVM VG[5]-QFMGF\ VY'IJICGTFGF\ DGMU{7FIGS ; }BFSFZLGF\38SGF\ 5F%TF\$MGF\ DwI SM JrR{SM. ; FY'S TOFJT GYLP

15. HJNLvHJNL pDZ (21 YL 35 JOF⁴ 36 YL 50 JOF⁴ 51 VG[T[YL JW] JOF⁴

- WZJTL jIISTVMGAVVYIJICGTFGA DGMU{7FIGS ; }BFSZLGA\38SGF
5F%TFSMGF DwI SM JrR[SM. ; FY'S TOFJT GYLP
16. jIISTGM 5\$FZ4 jIISTGL HFIT VG[pDZGL VFTZIS|I FGL TGL VYIJICGTFGA
DGMU{7FIGS ; }BFSZLGA\38S 5Z SM. ; FY'S V; Z YTL GYLP
 17. I MUS VG[IAGI MUS jIISTVMGL XFZLIZS OIZI FNGA DGMU{7FIGS ; }BFSZL
GA\38SGA\5F%TFSMGF DwI SM JrR[SM. ; FY'S TOFJT GYLP
 18. :+LVM VG[5]-QFMGA\XFZLIZS OIZI FNGA DGMU{7FIGS ; }BFSZLGA 38SGA
5F%TFSMGF\ DwI SM JrR[SM. ; FY'S TOFJT GYLP
 19. HJNLvHJNL pDZ (21 YL 35 JOF4 36 YL 50 JOF4 51 VG[T|YL JW] JOFF WZJTF
jIISTVMGL XFZLIZS OIZI FNGA DGMU{7FIGS ; }BFSZLGA 38SGF 5F%TFSMGF
DwI SM JrR[SM. ; FY'S TOFJT GYLP
 20. jIISTGM 5\$FZ4 jIISTGL HFIT VG[pDZGL VFTZIS|I FGL TGL XFZLIZS
OIZI FNGA DGMU{7FIGS ; }BFSZLGA\38S 5Z SM. ; FY'S V; Z YTL GYLP
 21. I MUS VG[IAGI MUS jIISTVMGA VftDUFZJGA DGMU{7FIGS ; }BFSZLGA
38SGA\5F%TFSMGF DwI SM JrR[SM. ; FY'S TOFJT GYLP
 22. :+LVM VG[5]-QFMGA\VftDUFZJGA DGMU{7FIGS ; }BFSZLGA 38SGA\5F%TFSMGF
DwI SM JrR[SM. ; FY'S TOFJT GYLP
 23. HJNLvHJNL pDZ (21 YL 35 JOF4 36 YL 50 JOF4 51 VG[T|YL JW] JOFF WZJTF
jIISTVMGA\VftDUFZJGA DGMU{7FIGS ; }BFSZLGA\38SGF 5F%TFSMGF DwI SM
JrR[SM. ; FY'S TOFJT GYLP
 24. jIISTGM 5\$FZ4 jIISTGL HFIT VG[pDZGL VFTZIS|I FGL TGA\VftDUFZJGA
DGMU{7FIGS ; }BFSZLGA\38S 5Z SM. ; FY'S V; Z YTL GYLP
 25. I MUS VG[IAGI MUS jIISTVMGL IJWFI S , FU6LGA DGMU{7FIGS ; }BFSZLGA
38SGA\5F%TFSMGF DwI SM JrR[SM. ; FY'S TOFJT GYLP
 26. :+LVM VG[5]-QFMGL IJWFI S , FU6LGA DGMU{7FIGS ; }BFSZLGA

38SGF\5F%TF\$MGF\Dwl SM JrR[SM. ; FY'S TOFJT GYLP

27. HJNLvHJNL pDZ (21 YL 35 JQF? 36 YL 50 JQF? 51 VG[T|YL JW] JQFF WZFJTF
jI ISTVMGL IJWFI S , FU6LGF\ DGMU{7FIGS ; }BFSFZLGF\38SGF 5F%TF\$MGF
Dwl SM JrR[SM. ; FY'S TOFJT GYLP

28. jI ISTGM 5\$FZ4 jI ISTGL HFIT VG[pDZGL VFTZIS| FGL TGL IJWFI S
, FU6LGF\ DGMU{7FIGS ; }BFSFZLGF\38S 5Z SM. ; FY'S V; Z YTL GYLP

29. I MUS VG[IAGI MUS jI ISTVMGL SFI DL 5J'ITGF\ DGMU{7FIGS ; }BFSFZLGF\
38SGF\5F%TF\$MGF Dwl SM JrR[SM. ; FY'S TOFJT GYLP

30. :+LVM VG[5]-QFMGL SFI DL 5J'ITGF\ DGMU{7FIGS ; }BFSFZLGF\38SGF\
5F%TF\$MGF\Dwl SM JrR[SM. ; FY'S TOFJT GYLP

31. HJNLvHJNL pDZ (21 YL 35 JQF? 36 YL 50 JQF? 51 VG[T|YL JW] JQFF WZFJTF
jI ISTVMGL SFI DL 5J'ITGF\ DGMU{7FIGS ; }BFSFZLGF\38SGF 5F%TF\$MGF Dwl SM
JrR[SM. ; FY'S TOFJT GYLP

32. jI ISTGM 5\$FZ4 jI ISTGL HFIT VG[pDZGL VFTZIS| FGL TGL SFI DL 5J'ITGF\
DGMU{7FIGS ; }BFSFZLGF\38S 5Z SM. ; FY'S V; Z YTL GYLP

33. I MUS VG[IAGI MUS jI ISTVMGF\ ÒJG ; \TMDFGF\ DGMU{7FIGS ; }BFSFZLGF\
38SGF\5F%TF\$MGF Dwl SM JrR[SM. ; FY'S TOFJT GYLP

34. :+LVM VG[5]-QFMGF ÒJG ; \TMDFGF\ DGMU{7FIGS ; }BFSFZLGF\38SGF\
5F%TF\$MGF Dwl SM JrR[SM. ; FY'S TOFJT GYLP

35. HJNLvHJNL pDZ (21 YL 35 JQF? 36 YL 50 JQF? 51 VG[T|YL JW] JQFF WZFJTF
jI ISTVMGF ÒJG ; \TMDFGF\ DGMU{7FIGS ; }BFSFZLGF\38SGF 5F%TF\$MGF Dwl SM
JrR[SM. ; FY'S TOFJT GYLP

36. jI ISTGM 5\$FZ4 jI ISTGL HFIT VG[pDZGL VFTZIS| FGL TGF\ ÒJG ; \TMDFGF\
DGMU{7FIGS ; }BFSFZLGF\38S 5Z SM. ; FY'S V; Z YTL GYLP

37. I MUS VG[IAGI MUS jI ISTVMGF VftD; V DGF\ DGMJ{7FIGS ; }BFSFZLGF\ 38SGF\5F%TF\$MGF DwI SM JrR[SM. ; FY'S TOFJT GYLP
38. :+LVM VG[5]-QFMGF VftD; V DGF\ DGMJ{7FIGS ; }BFSFZLGF\ 38SGF\5F%TF\$MGF DwI SM JrR[SM. ; FY'S TOFJT GYLP
39. H]NLvH]NL pDZ (21 YL 35 JQF? 36 YL 50 JQF? 51 VG[T[YL JW] JQFF WZFJTF jI ISTVMGF VftD; V DGF\ DGMJ{7FIGS ; }BFSFZLGF\ 38SGF\5F%TF\$MGF DwI SM JrR[SM. ; FY'S TOFJT GYLP
40. jI ISTGM 5\$FZ4 jI ISTGL HFIT VG[pDZGL VFTZIS| FGL T[VMGF VftD; V DGF\ DGMJ{7FIGS ; }BFSFZLGF\ 38S 5Z SM. ; FY'S V; Z YTL GYLP
41. I MUS VG[IAGI MUS jI ISTVMGL TF6GF\ DGMJ{7FIGS ; }BFSFZLGF\ 38SGF\ 5F%TF\$MGF DwI SM JrR[SM. ; FY'S TOFJT GYLP
42. :+LVM VG[5]-QFMGL TF6GF\ DGMJ{7FIGS ; }BFSFZLGF\ 38SGF\5F%TF\$MGF DwI SM JrR[SM. ; FY'S TOFJT GYLP
43. H]NLvH]NL pDZ (21 YL 35 JQF? 36 YL 50 JQF? 51 VG[T[YL JW] JQFF WZFJTF jI ISTVMGL TF6GF\ DGMJ{7FIGS ; }BFSFZLGF\ 38SGF\5F%TF\$MGF DwI SM JrR[SM. ; FY'S TOFJT GYLP
44. jI ISTGM 5\$FZ4 jI ISTGL HFIT VG[pDZGL VFTZIS| FGL T[GL TF6GF\ DGMJ{7FIGS ; }BFSFZLGF\ 38S 5Z SM. ; FY'S V; Z YTL GYLP
45. I MUS VG[IAGI MUS jI ISTVMGF; FZF56FGF\ DGMJ{7FIGS ; }BFSFZLGF\ 38SGF\5F%TF\$MGF DwI SM JrR[SM. ; FY'S TOFJT GYLP
46. :+LVM VG[5]-QFMGF ; FZF56FGF\ DGMJ{7FIGS ; }BFSFZLGF\ 38SGF\5F%TF\$MGF DwI SM JrR[SM. ; FY'S TOFJT GYLP
47. H]NLvH]NL pDZ (21 YL 35 JQF? 36 YL 50 JQF? 51 VG[T[YL JW] JQFF WZFJTF jI ISTVMGF; FZF56FGF\ DGMJ{7FIGS ; }BFSFZLGF\ 38SGF\5F%TF\$MGF DwI SM JrR[SM. ; FY'S TOFJT GYLP

48. jI ISTGM 5|SFZ4 jI ISTGL HFIT VG[pDZGL VFtZIS|I FGL T|GF\; FZF56FGF\ DGMJ{7FIGS ; }BFSFZLGF\38S 5Z SM. ; FY'S V; Z YTL GYLP
49. I MUS VG[IAGI MUS jI ISTVMGL ; FDFgI V; ZSFZSTFGF\ DGMJ{7FIGS ; }BFSFZLGF\38SGF\5F%TF\$MGF DwI SM JrR[SM. ; FY'S TOFJT GYLP
50. :+LVM VG[5]-QFMGL ; FDFgI V; ZSFZSTFGF\ DGMJ{7FIGS ; }BFSFZLGF\38SGF\ 5F%TF\$MGF\ DwI SM JrR[SM. ; FY'S TOFJT GYLP
51. H|NLvH|NL pDZ (21 YL 35 JOF? 36 YL 50 JOF? 51 VG[T|YL JW] JOF? WZFJTF jI ISTVMGL ; FDFgI V; ZSFZSTFGF\ DGMJ{7FIGS ; }BFSFZLGF\38SGF\5F%TF\$MGF DwI SM JrR[SM. ; FY'S TOFJT GYLP
52. jI ISTGM 5|SFZ4 jI ISTGL HFIT VG[pDZGL VFtZIS|I FGL T|GL ; FDFgI V; ZSFZSTFGF\ DGMJ{7FIGS ; }BFSFZLGF\38S 5Z SM. ; FY'S V; Z YTL GYLP
53. I MUS VG[IAGI MUS jI ISTVMGF\ VFtDCtI FGF\I JRFZMGF\ DGMJ{7FIGS ; }BFSFZLGF\38SGF\5F%TF\$MGF DwI SM JrR[SM. ; FY'S TOFJT GYLP
54. :+LVM VG[5]-QFMGF\VFtDCtI FGF\I JRFZMGF\ DGMJ{7FIGS ; }BFSFZLGF\38SGF\ 5F%TF\$MGF\ DwI SM JrR[SM. ; FY'S TOFJT GYLP
55. H|NLvH|NL pDZ (21 YL 35 JOF? 36 YL 50 JOF? 51 VG[T|YL JW] JOF? WZFJTF jI ISTVMGL VFtDCtI FGF\I JRFZMGF\ DGMJ{7FIGS ; }BFSFZLGF\38SGF\ 5F%TF\$MGF DwI SM JrR[SM. ; FY'S TOFJT GYLP
56. jI ISTGM 5|SFZ4 jI ISTGL HFIT VG[pDZGL VFtZIS|I FGL T|VMGF\ VFtDCtI FGF\ I JRFZMGF\ DGMJ{7FIGS ; }BFSFZLGF\38S 5Z SM. ; FY'S V; Z YTL GYLP
57. I MUS VG[IAGI MUS jI ISTVMGL 5IZI:YITHgI IRTTFGF\5F%TF\$MGF DwI SM JrR[SM. ; FY'S TOFJT GYLP
58. :+LVM VG[5]-QFMGL 5IZI:YITHgI IRTTFGF\5F%TF\$MGF\ DwI SM JrR[SM. ; FY'S TOFJT GYLP
59. H|NLvH|NL pDZ (21 YL 35 JOF? 36 YL 50 JOF? 51 VG[T|YL JW] JOF? WZFJTF

jI ISTVMGL 5IZI:YITHgI IR\TFGA\5F%TF\$MGF DwI SM JrR[SM. ; FY'S TOFJT GYLP

60. jI ISTGM 5\$FZ4 jI ISTGL HFIT VG[pDZGL VFTZIS|I FGL T[GL 5IZI:YITHgI IR\TF 5Z SM. ; FY'S V; Z YTL GYLP

61. I MUS VG[IAGI MUS jI ISTVMGL 5|U8 IJST IR\TFGA\5F%TF\$MGF DwI SM JrR[SM. ; FY'S TOFJT GYLP

62. :+LVM VG[5]-QFMGL 5|U8 IJST IR\TFGA\5F%TF\$MGF DwI SM JrR[SM. ; FY'S TOFJT GYLP

63. H\NlvH\Nl pDZ (21 YL 35 JOF? 36 YL 50 JOF? 51 VG[T[YL JW] JOFF WZEJTF jI ISTVMGL 5|U8 IJST IR\TFGA\5F%TF\$MGF DwI SM JrR[SM. ; FY'S TOFJT GYLP

64. jI ISTGM 5\$FZ4 jI ISTGL HFIT VG[pDZGL VFTZIS|I FGL T[GL 5|U8 IJST IR\TF 5Z SM. ; FY'S V; Z YTL GYLP

65. VMK14 DwI D VG[JW] DGMJ{7FIGS ; }BFSFZL VG|EJTF jI ISTVMGL 5IZI:YITHgI IR\TFGA\5F%TF\$MGF DwI SM JrR[SM. ; FY'S TOFJT GYLP

66. VMK14 DwI D VG[JW] DGMJ{7FIGS ; }BFSFZL VG|EJTF jI ISTVMGL 5|U8 IJST IR\TFGA\5F%TF\$MGF DwI SM JrR[SM. ; FY'S TOFJT GYLP

3.5 VwI I GGF\5IZJtI M

5]:TJT VwI I GGF\ C[TVMG[wI FGDA ZFBLG[GLR[DJHA :JT+ 5IZJtI M VG[T[GL S1FFVM TPDH 5ZT+ 5IZJtI M VG[IGI V+T 5IZJtI M GSSL SZJFDA VefI F CTFP H[5IZJtI M IJEFUJFZ GLR[DJHA KP

- 2 DGMJ{7FIGS ; }BFSFZLGF IJIJ3 38SM
- ; \TMDF (Satisfaction)
- ; FDFÒS VFWFZ (Social Support)
- VYI'JICGTF (Meaninglessness)
- XFZLIZS OIZI FN (Somatic Symptoms)
- VFtDUFZJ (Self Esteem)
- IJWFI S , FU6L (Positive Effect)
- SFI DL 5JIT (Daily Activities)
- ÒJG ; \TMDF (Life Satisfaction)
- VFtD ; \ D (Personal Control)
- Tf6 (Tension)
- ; FZF56\ (Wellness)
- ; FDFgl V; ZSFZSTF (General Efficiency)
- VFtD CtI FGF IJRfZM (Suicidal Ideas)
- 3 5JU8 IJST IRTF (Trait Anxiety)
- 4 5IZI:YITHgl IRTF (State Anxiety)

3.5.2 IJEFUv2

A :JT+ 5IZJtIM

S1FFVM

SD 5IZJtIM

1 DGMJ{7FIGS ; }BFSFZL

1. VMKL 0v

EMJ, [VG[5\$FX ZIRT DGMJ{7FIGS ; }BFSFZL T], F 5Z D/[, 5F%TFSMDF Q₁ ISDTYL GLR[GF 5F%TFSM WZFJGFZ jI ISTVMGL DGMJ{7FIGS ; }BFSFZLGF[VMKL U6JFDF\VFJL CTLP

2. DwI D 0v

EMJ, [VG[5\$FX ZIRT DGMJ{7FIGS ; }BFSFZL T], F 5Z D/[, 5F%TFSMDF Q₁ YL Q₃ ISDTGL GLR[;]WLGf 5F%TFSM WZFJGFZ jI ISTVMGL DGMJ{7FIGS ; }BFSFZLGF[DwI D U6JFDF\VFJL CTLP

3. JWpv

EMJ, [VG[5\$FX ZIRT DGMJ{7FIGS ; }BFSFZL T], F 5Z D/[, 5F%TFSMDF Q₃ ISDT VG[TYL p5ZGF 5F%TFSMG[JW] U6JFDF\VFJL CTLP

B VFWFIZT 5IZJtIM

1. 5IZI:YITHgI IRTF (**State Anxiety**)
2. 5U8 v IJST IRTF (**Trait Anxiety**)

3.5.3 IGI\+T 5IZJtIM

1. 5]:TJT VwI I GDF\ DF+ UHZFTL EFQFL jI ISTVMG[H IGNXDA5 ; N SZJFDF\ VFjIF KP
2. IMUS jI ISTDF\ H[jI IST VMKFD\ VMKF A[JQFYL IMU SZTL CMI TjL jI ISTVMG[H IGNX"TZLS[5 ; N SZJFDF\VFJL KP
3. 5]:TJT VwI I GDF\VMKFD\VMKM 10 WMZ6 ; JLMGM VeIF; SIM CMI TjL jI ISTVMG[H IGNX"TZLS[5 ; N SZJFDF\VFJL KP
4. 5]:TJT VwI I GDF\ DF+ 5ZI6T jI ISTVMG[H IGNX" TZLS[5 ; N SZJFDF\ VFJL KP
5. 5]:TJT VwI I GDF\ 20 JQFYL JWfZ[pDZGL jI ISTVMG[H IGNX" TZLS[5 ; N SZJFDF\VFJL KP

3.6. ; XMMG I MHGF

cc ; FDFÒS ; XMMGG[, 1FD\ZFBLG[jI JCFZS WFZ6FVM ; FY[SZJFDF\VFJTL ; DHJTLGF 5]:TJLSZ6G[ZL; R"IOhf. G SC[KP

v ; RDG

; XMMG I MHGF V[; DU[; XMMGG\ CFN" KP HM ; XMMG I MHGF jI JI:YT ZLT[SZJFDF\VFJ[TMH ; XMMG jI JI:YT ZLT[YFI P 5ZT]HM ; XMMG I MHGF H BFDLI]ST CMI TM ; XMMG I MuI DFU[VFU/ JWL XS[GICP ; XMMG I MHGF[; DU[; XMMG SFI " XL ZLT[SZJFG\K[TGF\VVU]GL ca,]5j8c SCL XSFI P ; XMS 5MTFGF\VeIF; GF\ C[T]G[wI FGDF\ZFBLG[; XMMG I MHGF 5 ; N SZ[KP 5]:TJT VwI I GGM C[T] IMUS VG[IAG IMUS jI ISTVMGL 5IZI:YITHgI v5]U8IJSTIRTF TjPH DGMU{7FIGS ;]BFSFZLDF\ TOFJT HMJF D/[K[S[SD TjGL HF6SFZL D[/JJFGM CTM VF p5ZAT DGMU{7FIGS ;]BFSFZL VMKL4 DwI S[JW] CMI TjGL V; Z jI ISTGL 5IZI:YITHgI v5]U8IJSTIRTF

5Z YFI K[S[SD T[GL HF6SFZL D[/JJFGM CTMP p5ZAT pDZ T[DH T[GL HFIT
s: +Lq5]-Qff GL Dbl T[DH VFTZIS| FtDS V; Z T[MGL DGMU{7FIGS ;]BFSFZL VG[
5IZI:YITHg| v5|U8IJSTIRTF 5Z YFI K[S[SD T[GL HF6SFZL D[/JJFGM C[T] 56
GSSL SIMCTMP

p5Z NXFU], F TDFD C[T]MGL[wI FGDF\ZFBLSB, LS Xg| ptS<5GFVMZRL CTL
VG[T[GL RSF; 6L DF8[; DU| I MHGFG[Dbl tJ[A[5Bf I MHGFDA IJEFIHT SZJFDA
VFJL CTL AgG[IJEFUGL IJUT[RRF"GLR[5|DF6[ZH]SZJFDA VFJL KP

3.6.1 IJEFUv1

; XMMG I MHGFGF\ C[T] VTU" T IJEFUv1 DA jI ISTGM 5SFZ SIMUS VG[
IAGIMUS jI ISTVMF4 HFIT s: +L VG[5]-Qff T[DH pDZGL T[MGL DGMU{7FIGS
;]BFSFZLGF\ IJIJW 38SM VG[5IZI:YITHg| 5|U8 IJSTIRTF 5Z YTL V; ZGL T5F;
SZJF DF8[2x2x3 O\$8MZI , I MHGF\VTU" T p5ZMST +6| :JT+ 5IZJtI MGL 5ZT+
5IZJtI M 5Z YTL Dbl V; Z VG[VFTZIS| FtDS V; ZMGL HF6SFZL D[/JJFGM 5| tG
SIMCTMP VF I MHGF VTU" T jI ISTGF\ 5SFZGL IMUS VG[IAGIMUS Vp A[S1FF
GSSL SZL CTLP : +L VG[5]-QF Vp HFITGL A[S1FF GSSL SZL CTLP pDZGL +6 S1FFVM
(1) 21 YL 35 JQF4 (2) 36 YL 50 JQF"VG[(3) 51 VG[TYL JW] JQF" Vp GSSL SZL
CTLP VF IJEFUDA\ jI ISTVMGL DGMU{7FIGS ;]BFSFZL T[DH DGMU{7FIGS ;]BFSFZLGF\
13 38SM VG[5IZI:YITHg| 5|U8 IJST IRTFGF 5F%TFSG[5ZT+ 5IZJtI M TZLS[
ZFBJFDA VFjI F CTFP **2x2x3** O\$8MZI , I MHGFDA ; DFIJQ8 5IZJtI MGL IJUT[
ZH]VFT SM8S GP **3.1** DA\SZJFDA VFJL KP

SMD8S GP 3.1
2x2x3 0S8MZI , I MHGF VTUT 5IZJtI M VG[T]GL S1FFVM

S/D	5IZJtI G]GFD	; \7F	5IZJtI G] :J~5	S1FFGL ; bI F	S1FFG]GFD
1	jI ISTGM 5]SFZ	A	:JT+	2	A₁ I MUS jI ISTVM A₂ IAGI MUS jI ISTVM
2	HFIT	B	:JT+	2	B₁ : +LVM B₂ 5]-QFM
3	pDZ	C	:JT+	3	C₁ 21 YL 35 JQF" C₂ 36 YL 50 JQF" C₃ 51 VG[T]YL JW] JQF"
4	DGMJ{7FIGS ; }BFSFZL	-	5ZT+	-	-
5	DGMJ{7FIGS ; }BFSFZLGF IJJW 38SM	-	5Z5+	-	-
-	; \TMEF	-	5ZT+	-	-
-	; FDFIHS VFWFZ	-	5ZT+	-	-
-	VYIJICGTF	-	5ZT+	-	-
-	XFZLIZS OIZI FN	-	5ZT+	-	-
-	VftDUFZJ	-	5ZT+	-	-
-	IJWFI S , FU6L	-	5ZT+	-	-
-	SFI DL 5]IT	-	5ZT+	-	-
-	ÖJG ; \TMEF	-	5ZT+	-	-
-	VftD; \ D	-	5ZT+	-	-

-	Tf6	-	5ZT+	-	-
-	; FZF56]	-	5ZT+	-	-
-	; FDFgl V; ZSFZSTF	-	5ZT+	-	-
-	VftDCtI FGAIJRFZM	-	5ZT+	-	-
6	5IZI:YITHgl IRTF	-	5ZT+	-	-
7	5U8 IJST IRTF	-	5ZT+	-	-

2x2x3 O[S8MZI , I MHGFDFAS], **12** HY (Cell) DF\; DFG ; bI FGF IGX'5F+M , [JFG]GSSL SZJFDF\VFJl]CTP 5tI [Cell DF\ **40** p₂ZNFTFVMGL ; bI F , [TF S], **480** jI ISTVM5Z VeI F; VFWFIZT CTIP VF I MHGF VTU" :JT+ R, MG[wI FGDF ZFBLG] GSSL SZ], F GD]GFGI IJUT[ZH]VFT SMO8S GP **3.2** DfSZJFDF\VFJL KP VF O[S8MZI , I MHGF äZF Xgl ptS<5GF GP **1** YL **64** sS], **64**f GL RSF; 6L SZJFGM VFXI CTIP

SMO8S GP 3.2

2x2x3 O[S8MZI , I MHGF VTU" 5tI [HYDF\; DFIJQ8 jI ISTVMGL ; bI F **N= 480**

A₁ I MUS jI ISTVM n=240						A₂ I AGI MUS jI ISTVM n=240					
B₁ : +LVM n=120			B₂ 5]-QFM n=120			B₁ : +LVM n=120			B₂ 5]-QFM n=120		
C ₁	C ₂	C ₃	C ₁	C ₂	C ₃	C ₁	C ₂	C ₃	C ₁	C ₂	C ₃
21 YL	36 YL	51 VG[21 YL	36 YL	51 VG[21 YL	36 YL	51 VG[21 YL	36 YL	51 VG[
35 JQF"	50 JQF"	T[YL JW]JQF"	35 JQF"	50 JQF"	T[YL JW]JQF"	35 JQF"	50 JQF"	T[YL JW]JQF"	35 JQF"	50 JQF"	T[YL JW]JQF"
n=40	n=40	n=40	n=40	n=40	n=40	n=40	n=40	n=40	n=40	n=40	n=40

3.6.2 IJEFUv2

5]:TJT ; XMMG VwI I GGf C[T]VMG[wI FGDF ZFBLG[IJEFUv **2** VTU" I MUS VG[IAGI MUS jI ISTVMGL DGMU{7FIGS ;]BFSFZL VMKL4 DwI D S[JWFZ[CMI TM T[GL ; FYS V; Z T[VMGL 5IZI:YITHgl v5U8IJSTIRTF 5Z YFI K[S[S[D T[GL HF6SFZL D[/JJF 't' S; MBLGF p5I MUJF/L I MHGF GSSL SZL CTIP VF IJEFU VTU" Xgl

ptS<5GF GP **65 & 66** ZRL CTLP DGMU{7FIGS ; }BFSFZLGL +6 S1FFVM VMKL4 DwI D VG[JWFZ[V[Q IJR, G äfZF GSSL SZJFDA VFJL CTLP Q₁ ISDTYL GLR[GF 5F%TFMSG[VMKL DGMU{7FIGS ; }BFSFZLDA, [JFDA\ VFjIF CTFP Q₁ YL Q₃ ISDTGF GLR[; }MLGF 5F%TFMSG[DwI D DGMU{7FIGS ; }BFSFZLDA, [JFDA\ VFjIF CTFP Q₃ ISDT VG[T[GL p5ZGF 5F%TFMSG[JWFZ[DGMU{7FIGS ; }BFSFZLDA, [JFDA\ VFjIF CTFP VF IMHG V\TU" :JT\+ 5IZJtIM VG[T[GL S1FFVM T[DH 5ZT\+ 5IZJtIMGL IJUT[ZH]VFT SMQ8S GP **3.3** D\SZJFDA VFJL KP

SMQ8S GP 3.3
5IZJtIM VG[T[GL S1FFVM

SPD	5IZJtIM	5IZJtI'G\ :J~5	S1FFGL ; bIF	S1FFG\GFD
1	DGMU{7FIGS ; }BFSFZL	:JT\+	3	1 VMKL 2 DwI D 3 JWFZ[
2	5IZI:YITHgI IRTF	5ZT\+	-	-
3	5U8 IJST IRTF	5ZT\+	-	-

p5ZMST AgG[IJEFU DF8[H~ZL DFICTL D/ JJF DF8[IGNX"GL 5; NUL XL ZLT[SZL CTL T[DH T[DF8[H[; FWGNGM p5IMU SIMCTMT[GL T[DH X]I ptS<5GFVMGL RSF; 6L SZJF DF8[H[VFSOFSLI 5I IJSTVMGM p5IMU SIMCTM T[GL IJUT[ZH]VFT CJ[5KLGFD]N\FVMDA SZJFDA VFJL KP

3.7 IGNX"5; NUL

IGNX" V[B, [IJXF/ ; DIQ8G\ 5ITIGIWtJ WZFJTM p5; D]C4 ; XMMWS HI FZ[; XMMWG SZTM CMI tIFZ[; DIQ8GA TDFD 5F+MG[VFJZL , . G[; XMMWG SZJ]DF+

DkS[, H GIC 56 VXSI 56 KP T[YL H ; DI08DFYL 5|ITIGIWtJ~5 IGNX" 5; N
 SZLG[TGF 5Z ; \MWG SZJFDF\VFJ[KP VFD4 ; DI08 IJX[DFICTL D[/JJFGF C[TYL
 V[; DI08DFYL 5; N SZ[, F 5|ITIGIW~5 VSDGF; DCG[IGNX"SCJFDF\VFJ[KP VF
 IGNX"5ZYL 5F%T YI[, F 5IZ6FDMG\T[; DU[; DI08 DF8[; FDFgI LSZ6 SZL XSFI KP
 5]:TJT ; \MWG VwI I GGM DpI VFXI HFDGUZ XCZGF IJIJW IJ:TFZDFYL
 I MU SZTF VG[I MU G SZTF jI ISTVMGL DGMU(7FIGS ;]BFSFZL TPDH 5IZI:YITHgI
 5|U8IJSTIRTFGM VeIF; SZJFGM CTMP ; \MWGGF C[T]G[wI FGDF\ZFBLG[IGNX'GL
 5; NUL A[IEJFUDF\SZJFDF\VFJLP

3.7.1 IJEFUv1

5YD IJEFUDF\HFDGUZ XCZGF\HJNFvHJNF IJ:TFZDFRf, TF I MU ; g8ZMS#
 HI F I MUIS|FGL TF, LD , LWF AFN 56 jI ISTVM IGI IDT I MU SZJF VFJ[K# TPDH
 3Z ZCLG[56 IGI IDT I MU SZTF CMI TPF jI ISTVMGL 5FYIDS DFICTL D[/JJFDF\
 VFJLP VF DFICTLGL VNZ jI ISTG\ GFD4 pDZ4 X(FI6S , FI SFT4 HFIT4 jI IST SM.
 XFZLIZS IADFZL WZFJ[K[S[S]D m S]A]AGL DFI; S VFJS JUZ[VUJGL DFICTL D[/JJF
 DF\VFJL CTLP 5F%T YI[, L IJUTM VG[IGI V+T 5IZJtI MG[wI FGDF\ZFBL **120** :+LVM
 VG[**120** 5]-QFMG[:TZLST I N#K 5; NULGL 5wWITYL 5; N SZJFDF\VFJIF CTFP AgG[
 5]SFZGF 5; N SZ[, F **120** pZ ZNFTFVMDFA **40** jI ISTVM **21** YL **35** JQF'GL pDZGF4 **40**
 jI ISTVM**36** YL **50** JQF'GL pDZGF VG[**40** jI ISTVM**51** JQF"VG[T]YL JW]pDZGF CMI
 TPF jI ISTVMGMIGNX'DF; DFJX SZJFDF\VFJIM CTMP

3.7.2 IJEFUv2

ALHF IJEFUDF\ I MU G SZTF jI ISTVMGL 5; NUL SZJFDF\ VFJLP VF DF8[
 IGI V+T 5IZJtI MG[wI FGDF\ZFBL XCZGF IJIJW IJ:TFZDFYL **120** :+LVMVG[**120**
 5]-QFMG[:TZLST I N#K GDGF 5; NULGL 5wWITYL 5; N SZJFDF\VFJIFP AgG[5]SFZ

GF 5; N 5FD[, F **120** p₂ZNFTFVMDA **40** jI ISTVM **21** YL **35** JQF"; WLG L p'DZGF **40** jI ISTVM **36** YL **50** JQF"; WLG L p'DZGF VG[**40** jI ISTVM **51** JQF" VG[TYL J3]p'DZGF CMI TPF jI ISTVMGM IGX'DA; DFJX SZJFDA VFjI MCTM

VFD4; XMWGGF C[T]G[wI FGDA ZFBL **240** I MU SZTF jI ISTVM VG[**240** I MU G SZTF jI ISTVM V[D D/LG[S], **480** p₂ZNFTFVGM IGX'DA; DFJX SZJFDA VFjI MCTM

IGNX'GL IJUT SM8S GP **3.4** DA NXF"JJFDA VFJ[, KP

SM8S GP 3.4
IGNX'G\J6'G

I MUS jI ISTVM sS[H]VM VQ8FU I MUGF IJ JW VUM HDS[wI FG4 5f6FI FD4 VF; GM WFZ6F JUZ[IGI IDT SZTF CMI f 240 jI ISTVM						IAGI MUS jI ISTVM sS[H]VMSM. 56 HFTGL I MUISIF G SZTF CMI f 240 jI ISTVM					
: +LVM			5]-QFM			: +LVM			5]-QFM		
120			120			120			120		
21 YL 35 JQF"	36 YL 50 JQF"	51 VG[TYL JW]JQF"	21 YL 35 JQF"	36 YL 50 JQF"	51 VG[TYL JW]JQF"	21 YL 35 JQF"	36 YL 50 JQF"	51 VG[TYL JW]JQF"	21 YL 35 JQF"	36 YL 50 JQF"	51 VG[TYL JW]JQF"
40	40	40	40	40	40	40	40	40	40	40	40

3.8 DFICTL V[S+LSZ6GF; FWGM

; XMWS 5MTFGA; XMWG VeIF; DA H~ZL DFICTL V[S]I+T SZJF DF8[HJNFvHJNF; FWGMGM p5I MU SZ[KP ZR[, V8S/GL RSF; 6L DF8[VG[VwI I GGA

C[T]VMBZEVYDF\ I; wW SZJF DF8[; XWWS pIRT DFICTL 5ZL 5F0TF\ I MuI ; FWGM
5; N SZ[KP

5]: TJT ; XWGGF\ C[T]MG[wI FGDF\ ZFBLG[H~ZL DFICTL D/JJF DF8[GLR[
NXFJ[, ; FWGMGM p5I MU SI M CTM

3.8.1 jI ISTUT DFICTL 5+S

; XWGGF\GDJGDF\; DFIJQ8 pZ ZNFTFVMGL Sß, LS jI ISTUT DFICTL ; XWGG
DF8[36L H p5I MUL ; FIAT YTL CMI KP VFYL jI ISTVMGA jI ISTUT 5IZJtIM
VVUGL DFICTL D/JJF DF8[; XWWS äZFZ jI ISTUT DFICTL5+S T¶ FZ SZJFDF\ VFJ[]
CTP VF jI ISTUT DFICTL5+S äZFZ jI ISTVMGL HFITs: +Lq5]-0ff4 T¶MGL pDZA
X¶FI6S , FI SFT T¶DH Sß, F ; DI YL I MU SZ[K[m SI F SFZ6YL I MU SZ[K[m I MU
SZJFYL X¶OFI NM YFI K[m jI ISTGL XFZLIZS TNZ: TL S¶L K[m JUZ[VU[DFICTL
Vß+LT SZJFDF\ VFJL CTLP

3.8.2 5IZI:YITHgI 5U8 IJST IRTF 5] G;)R

(State Trait Anxiety Inventory)

5]: TJT ; XWGG VwI I GDF\ jI ISTGL IRTFG\ DF5G SZJF DF8[**Charles D.
Spillberger** ZIRT **State Trait Anxiety Inventory (STAI)** GM p5I MU SZJFDF\
VFJ[M CTM **State -Trait Anxiety** GL 5Z[5ZL DFICTL KF5[, F : J~5DF\5] GFJI, GF
OMDDF\ CMI KP **State Anxiety** VG[**Trait Anxiety** AgGDF\ **20-20** IJUTMKP
pZ ZNFTFG[AgGGL ; RGF V, UvV, U VF5JFDF\ VFJ[KP pZ ZNFTFG[5YD **State -
Anxiety** VF5JFDF\ VFJ[KP **State Anxiety** GM VY" YFI K¶ 5IZI:YITHgI IRTF4
T¶DF\ NZß IJUTGL ; FD[RFZ IJS<5MVF5JFDF\ VFJ[F CMI KP (1) IA, S], GIC4
(2) S\ S VX[(3) DCN VX[(4) VITXI P pZ ZNFTFG[; RGF VF5JFDF\ VFJ[K[S¶ VF
1F6[TD[H[VGEJTF CMI TG[wI FGDF\ZFBLG[; FD[VF5[, F RFZ IJS<5DFYL TDG[H]
IJS<5 , FU] 50TM CMI V[IJS<5GFA SJDG[OZT[JT]/ SZMP TDFZL CF, GL , FU6LVMG[

ρζD ZLT[J6'G SZTF HJFA VF5M T[H~ZL KP

Trait Anxiety GM VY" YFI K# 5|U8 IJST IR\TFP **Trait Anxiety** DANZ[S IJWFGGL ; FD[RFZ IJS<5M VF5JFDA VFjI F KP (1) DMBFEFU[SI FZ[I GIC (2) SI FZ[S (3) JFZVFZ (4) DMBFEFU[CVD\XP ρζ ZNFTFG[; RGF VF5JFDA VFJ[K[S# TD[; FDFgI ZLT[S|U\ VG]EJM KM TG[wI FGDA ZFBLG[; FD[VF5[F RFZ IJS<5MDFYL TDG[H[IJS<5 , FU] 50TM CMI V[IJS<5 DF8[G\ S|DGL OZT[JT]/ SZMP

State Anxiety D\20 IJUTM K# T|D\ 3, 4, 6, 7, 9, 12, 13, 14, 17, VG[18 GAZGL IJUTM IR\TFGL CFHZLJF/L IJUTM K# H|D\ VG[S|D[1, 2, 3, 4, D\I VF5JFDA VFjI \ KP HI FZ# 1, 2, 5, 8, 10, 11, 15, 16, 19, VG[20 GAZGL IJUTM IR\TFGL UZCFHZLJF/L IJUTM KP T|D\ VG[S|D[4, 3, 2, 1 D\I VF5JFDA VFjI \ KP

Trait Anxiety D\56 20 IJUTM KP T|D\ 22, 24, 28, 29, 31, 32, 35, 37, VG[38 GAZGL IJUTM IR\TFGL CFHZLJF/L IJUTM KP T|D\ VG[S|D[1, 2, 3, 4 V|D D\I VF5JFDA VFjI \ KP **State** VG[**Trait** AgG[**Anxiety** D\VMKFDA VMKM 20 VG[JW|D\ JW] 80 5F%TFS D/[KP T|D\ D/[F 5F%TFSMG\ VY'W8G GD]GFDA ; DFIJQ8 ρζ ZNFTFGF 5F%TFSMGL ; ZF; ZL SF-LG[T|GL ; FY[T], GF SZJFDA VFJ[KP VF T], FGA ; \MWS[T], FGL I YFY"TF VG[IJ`J; GLI TF prRL NXF"JL KP T|GM ACM/F 5|Df6D\YTM ρ5I MU H T|GL prRL IJ`J; GLI TF VG[I YFY"TFG[: 5Q8 SZ[KP

SMQ8S GP 3.5

State Trait Anxiety Scale GL IJ`J; GLI TF VFS NXF"JT] SMQ8S

High School Students	30 Days	60 Days
State Anxiety		
Males	0.62	0.51
Females	0.34	0.36
Trait Anxiety		

Males	0.71	0.68
Females	0.75	0.65

College Students	1 Hour	10 Days	20 Days
State Anxiety			
Males	0.33	0.54	0.33
Females	0.16	0.27	0.31
Trait Anxiety			
Males	0.84	0.86	0.73
Females	0.76	0.76	0.77

State- Trait Anxiety Scale GL IJ`J; GLI TFGI RSF; 6L S; MBL 5]Go S; MBL äZF SZJFDA VEFJTF HI IJ`J; GLI TF VFS HMUF D?IF T[VF 5]DF6[KP SM, HGF IJnFYLVMDA **Trait Anxiety Scale** GL IJ`J; GLI TF **0.73** YL **0.86** H[8, LprRL HMUF D/L CTLP HI FZ[CF. :S), GFI IJnFYLVMDA **Trait Anxiety Scale** GL IJ`J; v GLI TF **0.65** YL **0.75** HMUF D/L CTLP HI FZ[**State Anxiety Scale** GL IJ`J; GLI TF SM, HGF IJnFYLVMDA **0.44** VG[CF. :S), GF IJnFYLVMDA **0.44** VG[CF. :S), GF IJnFYLVMDA **0.37** HMUF D/L CTLP

3.8.3 DGMU(7FIGS ;]BFSFZL T], F (Psychological Well- being Scale)

Bhogle and Prakash (1995) ZIRT DGMU(7FIGS ;]BFSFZL T], FGM **Suvera (2001)** äZF U]HZFTL EFOFFDA T{ FZ SZJFDA VEFJ, DGMU(7FIGS ;]BFSFZL T], FGM p5IMU SZLG[IMUS VG[IAGIMUS jI ISTVMGL DGMU(7FIGS ;]BFSFZL T]DF5G SZJFDA VEFJ I]CTP VF T], FDFAS), **28** IJWFGM KP 5]I] IJWFGGL ; FD[A[J\$I<5S 5]TRFZMsCFqGff VF5JFDA VEFJ, F KP A[IJS<5DFYL V\$ IJS<5GL 5; NUL SZJFGL

CMI KP VG[TGF p5Z BZFFGL s f IGXFGL SZJFGL CMI KP VF T], FDA IJWFI S VG[IGQFWS A_gG[5]SFZGF IJWFGM VF5JFDA VFJ], F KP VF IJWFGMDA **1** sV[Sf VG[**0** sX_gI f VD U₆FSG SZJFG\ CMI KP VF T], FDA **1, 2, 3, 7, 8, 9, 11, 13, 17, 18, 19, 20, 22, 24, 25, 26, 27** VG[**28** SPDGF IJWFGM IJWFI S : J~5GF KP VF IJWFGMDA cCfc p5Z sBZFFGL IGXFGL CMI TM csV[Sf U₆F S VF5JFDA VFJ] K[VG[cGfc p5Z sBZFFGL IGXFGL CMI TM **0** sX_gI f U₆F S VF5JFDA VFJ] KP VF T], FDA **4, 5, 6, 10, 12, 14, 15, 16, 21** VG[**23** SPDGF IJWFGM IGQFWS : J~5GF KP VF IJWFGMDA cCfc p5Z sBZFFGL IGXFGL CMI TM **0** sX_gI f U₆F S VF5JFDA VFJ] K[VG[cGfc p5Z sBZFFGL IGXFGL CMI TM **1** sV[Sf U₆F S VF5JFDA VFJ] KP

VF T], FDA DCTD **28** 5f%TFS D/[K[VG[, 3]TD **0**sX_gI f 5f%TFS D/L XS[KP DGMU{7FIGS ; }BFSFZL T], FGL S; MBL 5]Go S; MBL JO[XMMJFDA VFJ], IJ`J; GLI TF VFS **0.72** VG[VFTIZS ; }; UTTE VFS **0.84** HMUF D/[KP VF T], FGM I YFY"TF VFS 56 ; \TMDF5N HMUF D/[KP VF T], FGM **SuverA (2001)** äZF SZJFDA VFJ], U_HZFTL VG_UFNGM D/ VU_JÖ T], F ; FYGM S; MBL 5]GoS; MBL JO[**50** IGNX'5F+M 5Z XMM, D/ VU_JÖ S; MBL ; FYGM IJ`J; GLI TF VFS **0.91** HMUF D/[KP VF T], FDA H[D 5f%TFS J3] TD DGMU{7FIGS ; }BFSFZLG\ 5]DF6 JW] V_J\ VY'38G SZJFDA VFJ] KP VF T], F äZF VY'IJICGTFGF4 XFZLIZS OIZI FN4 VftDUFZJ4 IJWFI S , FU6L4 SFI DL 5_J'IT4 ÖJG ; \TMDF4 VftDctI FG\IJRFZM VftD; \ D4 TF64 ; FDFgI V; ZSFZSTF4 ; FZF56\ VG[; \TMDF H_JF DGMU{7FIGS ; }BFSFZLGF 38SMG\ DF5G SZL XSFI KP

VF T], FDA VY'IJCLGTF4 XFZLIZS OIZI FN4 VftDctI FG\IJRFZM VG[TF6DA H[D 5f%TFS J3] TD T[jI ISTDA DGMU{7FIGS ; }BFSFZLG\ 5]DF6 VMK\ K[V_J\ VY'38G SZJFDA VFJ] K_g HI FZ[VF T], FDA VftDUFZJ4 ; FDFÖS VFWFZ4 IJWFI S

, FU6L4 SFI DL 5P'IT4 ÒJG ; VTMDF4 VFtD; V D4 ; FZF56M ; FDFgI V; ZSFZSTF VG[; VTMDFGA 5F%TF5M J3] T[D T[jI ISTDA DGMU{7FIGS ; }BFSFZLGA 5|DF6 56 JW] K[VU] VY'W8G SZJFDA VEFJ[KP

VFD4 VF T], FDA DGMU{7FIGS ; }BFSFZLGA 13 HNF HNF 38SMG\ DF5 D/L XS[KP VF 14 38SMG\ GFD VG[TGF IJWFGMGF GAZ SM8S GP 3.6 DA ZH] SI F'KP

SM8S GP 3.6
DGMU{7FIGS ; }BFSFZLGA 38SM VG[TGF IJWFG GAZM

SPD	DGMU{7FIGS ; }BFSFZLGA IJW 38SM	5SFZ	IJWFG GAZM
1	; VTMDF (Satisfaction)	IJWFI S	1, 2, 27, 28
2	; FDFÒS VFWFZ (Social Support)	IJWFI S	3, 23
3	VY'IJICGTF (Meaning lessness)	IGQFWS	4, 15
4	XFZLIZS OIZI FN (Somatic Symptoms)	IGQFWS	5, 16
5	VftDUFZJ (Self Esteem)	IJWFI S	6, 17
6	IJWFI S , FU6L (Positive Affect)	IJWFI S	7, 18
7	SFI DL 5P'IT (Daily Activities)	IJWFI S	8, 19
8	ÒJG ; VTMDF (Life Satisfaction)	IJWFI S	9, 20
9	VftD ; V D (Personal Control)	IJWFI S	11, 22
10	TF6 s D]HJ6f (Tension)	IGQFWS	12, 24

11	; FZF56] (Wellness)	IJ3FI S	13, 25
12	; FDFgl V; ZSFZSTF (General Efficiency)	IJ3FI S	14, 26
13	VftDctI FGFIJRFZM (Suicidal Ideas)	IGOFWS	10, 21

3.9 DFICTL V\$+LSZ6GL 5|S|F

5]:TJT ; XWGGM DpI VFXI I MUS VG[IAGI MUS jI ISTVMGL DGMU{7FIGS ; }BFSFZL VG[5IZI:YITHgl 5|U8 IJST IRTFGM VeIF; SZJFGM CTMP C[T]G[wI FGDA ZFBLG[DFICTL V\$+LSZ6G] SFI "A[IJEFUDF\SZJFDA VFjI P

I MUS|I FGFI ; NE'DF jI ISTGM VeIF; Sglät CMJFYL ; F{ 5YD HFDGUZ XCZDA VFJ[, U}HZFT VFI p|INS I}GJI; '8L äZF WgJATZL Sp5; D\F RF, TF 5TW, L I MU . g:8L8I }BGL D], FSFT , . HFDGUZ XCZDA RF, TF IJIJW I MU ; }8ZM IJX[DFICTL D/JJFDA VFJLP IJIJW I MU ; }8ZM H|D S} AF<SGÖGL AFZL4 HMU; 5FS4 ; M-F :S}, 4 V\$TF :S}, 4 7FGUUF :S}, HI F XCZGF IJIJW IJ:TFZDFYL jI ISTVM I MUS|I F XLBL , LWF AFN 56 IGI IDT I MU SZJF VFJ[K[T]VMG[D/LG[; XWGGFA C[T] IJX[H6FJL T]MM 5F; }L H~ZL DFICTL D/JJF DF8GL 5} "DHZL , }FDA VFJL CTLP tIFZAFN T]MGFA ; DI VG}; FZ tIF CFHZ ZCL :TZLST I N'K IGNX" äZF I MUS|I F SZTL jI ISTVM VUJGL 5FYIDS DFICTL D/JJFDA VFJL CTLP H|DA jI ISTGM GFD4 pDZ4 HFIT4 X}FI6S , FI SFT4 ; FDFIHSv VFIY'S NZHHM S}B}AGL DFI; S VFIJS4 SI F C[T]YL I MU SZ[K} S}, F ; DI YL I MU SZ[K} SM. XFZLIZS IADFZL WZFI K[S[SD4 I MU SZJFYL X} OFI NM YI M K[VF AWL DFICTL D/jI F AFN T]MG[T], F VUJGL ; DH}T VF5L T], F EZFJJFDA VFJL CTLP ; XWVG I MHGFDA GSSL SI F" D}HA I MU SZTL jI ISTVM DFA pDZGF +6| :TZMDFYL IGI V+T 5IZJtI MG[wI FGDA ZFBL GSF DL T], FG[AFN SZTF **120** I MUS :+LVM VG[**120** I MUS 5}-QFMGM IGNX'DF; DFJX SZJFDA VFjI MCTMP

VF p5ZFT ALHF IJEFUGL VNZ V}F jI ISTVMGL 5; NUL SZJFDA VFJL CTL

S[H[VM I MUIS|I F G SZTF CMI P VF DF8[HFDGUZ XCZGA HNF HNF IJ:TFZDFYL
 :TZLST I NfK GDGF 5; NULGL 5wWITYL **260** jI ISTVM 5F; [~A~ H. T[VMG[
 ; XMMGGM C[T] ; DHFJL T], F IJX[GL H~ZL ; }RGF VF5JFDF\ VFJL CTL VG[HI F
 T[VMG[G ; DHFI tI F ; DHFJL DFICTL V\$|+T SZJFDF\ VFJL CTP IGIN+T
 5IZJtI MG[wI FGDF\ ZFBL VWZL IJUTMF/L T], F AFN SZL **120** I MU G SZTL :+LVM
 VG[**120** I MU G SZTF 5]-QFMGMIGNXDF\ ; DFJX SZJFDF\ VFJIMCTMP

VF ZLT[DFICTL D[/jI F AFN 5|tI \$ T], FGA DgI]V, DFNXF]I F 5|DF6[5|tI \$
 IJWFGG\Uj6FSG SZL 38S 5|DF6[T]DH ; DU| 5F%TF\$M U6L SF-JFDF\ VFJIP tI FZAFN
 :JT+R, MGL GSSL SZ[, S1FF 5|DF6[jI ISTVMGF\ 5F%TF\$MG[JULST SZJFDF\VFJIP
 T]DF\ **120** I MUIS|I F SZTL :+LVM VG[**120** I MUIS|I F SZTF 5]-QFM **120** I MU G SZTL
 :+LVMVG[**120** I MU G SZTF 5]-QFM V]D S], **480** jI ISTVMG[+6 IJEFUDF\JULST
 SIFP VF RFZ|I :TZGA jI ISTVMG[0ZL T]DGL pDZGF VFWFZ[+6 :TZMDF\ JULST
 SZJFDF\VFJIP CTFP H]DF**21** YL **35** JQF";]MLGL pDZ WZFJTF **40** jI ISTVM **36** YL **50**
 JQF" ;]MLGL pDZ WZFJTF **40** jI ISTVMVG[**50** JQF" VG[T]YL JW] pDZ WZFJTF **40**
 jI ISTVMGM; DFJX SIM CTMP VF ZLT[**12 Cell** JF/L O\$8MZI , I MHGFG[wI FGDF\
 ZFBL jI ISTVMGF 5F%TF\$MG[JULST SZJFDF\VFJIP CTFP

VF ZLT[TDFD JULSZ6 SIF"5KL D/[, Uj6F\$MGF VY"38G DF8[GLR[NXF]I F
 5|DF6[VFSOFXF:+LI 5yYSZ6 SZJFDF\VFJIP]CTP

3.10 VFSOFXF:+LI 5|I]ISTVM

VFSOFXF:+G\ D]bI wI |I V\$+LT SZ[, L DFICTL 5Z VFSOFSLI 5|S|I F SZLG[
 TFZ6MTFZJJFG\ CMI KP VFSOFXF:+ AGFJMGL :5Q8 IJUTM D[/JJFDF\ VY"5}6"
 5IZ6FDMTFZJJFDF\ TFZ6M D[/JJF DF8[VG[DFICTLG\ VY"38G SZJF DF8[B]A
 p5IMJL AG[KP

5]:T]T VeIF; DF\ VwI I GGF C[T]VM VG[X]I ptS<5GFVMG[wI FGDF\ZFB LG[
 S[8, LS VFSOFXF:+LI 5|I]ISTVMGM p5IMU SIM CTMP H]DF\ D]bI C[T]G[

wl FGDF\ ZFBLG[jI ISTGM 5\$FZ4 HFIT4 VG[pDZGL DpI VG[VFATZIS|I FtDS V; Z
 DGMJ{7FIGS ; }BFSFZL4 5IZI:YITHgI v5|U8 IJST IR\TF VG[DGMJ{7FIGS
 ; }BFSFZLGF\13 38SM5Z YFI K[S[SD T[HF6JF DF8[H[X]I pt5S<5GFVMsGP1 YL
 64f ZRJDFA\VFJL CTLP T[GL RSF; 6L SZJF DF8[2x2x3 0\$8MZI , I MHGF VTU"U
 I+DFUL" IJRZ6 5yYSZ6 5wWIT (ANOVA) GM p5I MU SZL 'F' D}I M XMWJFDF\
 VFjIF CTFP VF p5ZFT ; FY'S VFATZIS|I FVMGL JW] RSF; 6L DF8[L.S.D. test GM
 p5I MU SZJFDF\VFjI MCTMP

VF p5ZFT DGMJ{7FIGS ; }BFSFZL VMK14 DwI D S[JWFZ[CMI TM T[GL V; Z
 5IZI:YITHgI 5|U8 IJST IR\TF 5Z YFI K[S[SD T[GL HF6SFZL D/JJF DF8[X]I
 ptS<5GF GP 65 VG[66 GL ZRGF SZJFDF\VFJL CTLP H|DF: JT+R, MGL +6 S1FF
 GSSL SZJF 'Q' IJR, G VG[T[GL RSF; 6L SZJF 't' U}6MTZ 5wWITGM p5I MU SZJFDF\
 VFjI MCTMP

VFD4 5:|TJT 5\$SZ6DA ; XMWGGF\ C[T]VM TYF ; XMWGGL ; DU| 5|S|FGL
 Ò6J8EZL ZH]VFT SZJFGM 5|IF; SI M KP CJ[5KLG 5\$SZ6DA VFSOFSLI 5yYSZ6
 AFN H[5IZ6FDM 5F%T YIF T[GL IJUT[ZH]VFT VG[VYW8G SZJFDF\VFjI }KP

5§Z6v 4
5IZ6FDGL RRF"VG[VY"38G

4.1 5|:TFJGF

4.2 IJEFUv1

jI ISTGM 5§FZ4 HFIT VG[pDZGF\ ; NE'DF\ T\MGL
DGMJ{7FIGS ;]BFSFZL4 5IZI:YITHgI v5|U8 IJST IR\TF VG[
DGMJ{7FIGS ;]BFSFZLGF\13 38SM

4.2.1 jI ISTGM 5§FZ4 HFIT VG[pDZGF\ ; NE'DF\ T\MGL DGMJ{7FIGS
;]BFSFZLP

4.2.2 jI ISTGM 5§FZ4 HFIT VG[pDZGF\ ; NE'DF\ D GMJ{7FIGS
;]BFSFZLGF\13 38SM

4.2.2.1 jI ISTGM 5§FZ4 HFIT VG[pDZGF\ ; NE'DF\ DGMJ{7FIGS
;]BFSFZLG\38S ; \TMDFP

4.2.2.2 jI ISTGM 5§FZ4 HFIT VG[pDZGF\ ; NE'DF\ DGMJ{7FIGS
;]BFSFZLG\ 38S ; FDFIHS VFWFZP

4.2.2.3 jI ISTGM 5§FZ4 HFIT VG[pDZGF\ ; NE'DF\ DGMJ{7FIGS
;]BFSFZLG\ 38S VY'IJICGTFP

4.2.2.4 jI ISTGM 5§FZ4 HFIT VG[pDZGF\ ; NE'DF\ DGMJ{7FIGS
;]BFSFZLG\ 38S XFZLIZS OIZI FNP

4.2.2.5 jI ISTGM 5§FZ4 HFIT VG[pDZGF\ ; NE'DF\ DGMJ{7FIGS
;]BFSFZLG\ 38S VftDUFZJP

4.2.2.6 jI ISTGM 5§FZ4 HFIT VG[pDZGF\ ; NE'DF\ DGMJ{7FIGS
;]BFSFZLG\ 38S IJWF I S , FU6LP

4.2.2.7 jI ISTGM 5|SFZ4 HFIT VG[pDZGF ; NE'DFADGMU{7FIGS
;]BFSFZLG\ 38S SFI DL 5|U'ITP

4.2.2.8 jI ISTGM 5|SFZ4 HFIT VG[pDZGF ; NE'DFADGMU{7FIGS
;]BFSFZLG\ 38S ÒJG; \TMQFP

4.2.2.9 jI ISTGM5|SFZ4 HFIT VG[pDZGF ; NE'DFADGMU{7FIGS
;]BFSFZLG\ 38S VftD; \ DP

4.2.2.10 jI ISTGM 5|SFZ4 HFIT VG[pDZGF ; NE'DFADGMU{7FIGS
;]BFSFZLG\ 38S TF6P

4.2.2.11 jI ISTGM 5|SFZ4 HFIT VG[pDZGF ; NE'DFADGMU{7FIGS
;]BFSFZLG\ 38S ; FZF56P

4.2.2.12 jI ISTGM5|SFZ4 HFIT VG[pDZGF ; NE'DFADGMU{7FIGS
;]BFSFZLG\ 38S ; FDFgI V; ZSFZSTF

4.2.2.13 jI ISTGM 5|SFZ4 HFIT VG[pDZGF ; NE'DFADGMU{7FIGS
;]BFSFZLG\ 38S VftDCtI FGF IJRFZMP

4.2.3 jI ISTGM 5|SFZ4 HFIT VG[pDZGF\ ; NE'DF\T\VMGL 5IZI: YITv
HgI IR\TFP

4.2.4 jI ISTGM 5|SFZ4 HFIT VG[pDZGF\ ; NE'DF\ T\VMGL 5|U8 IJST
IR\TFP

4.3 IJEFUv2
DGMU{7FIGS ;]BFSFZLG\ ; NE'DF\5IZI: YITHgI v5|U8IJST
IR\TFP

4.3.1 jI ISTVMGL DGMU{7FIGS ;]BFSFZL VG[5IZI: YITHgI IR\TFP

4.3.2 jI ISTVMGL DGMU{7FIGS ;]BFSFZL VG[5|U8 IJST IR\TFP

4.1 5]:TFJGF

5]:TJT ; XWVG Vwl I GGM DpI C[T] I MU SZTL jI ISTVM sI MUSf VG[I MU G SZTL jI ISTVM sI IAGI MUSfDA 5IZI:YITHgI v5|U8IJSTIRTF (**State Trait Anxiety**) TPDH DGMU{7FIGS ; }BFSFZLGL AFATDA TOFJT HMF D/[K[S[SD m T[GM Vef; SZJFGM CTMP p5ZFT jI ISTGM 5\$FZ sI MUS VG[IAGI MUSf4 HFIT s: +LVM VG[5]-QMF VG[pDZ (**21** YL **35** JQF⁴ **36** YL **50** JQF⁴ VG[**51** VG[T[YL JW] JQF⁵) GL DGMU{7FIGS ; }BFSFZL TPDH DGMU{7FIGS ; }BFSFZLGF IJIJW 38SM VG[5IZI:YITv HgI v5|U8IJSTIRTF 5Z YTL DpI VG[VFTZIS| FtDS V; Z HF6JFGM CTMP VF p5ZFT DGMU{7FIGS ; }BFSFZL VMK4 Dwl D S[JWFZ[CMI TM T[GL 5IZI:YITHgI 5|U8 IJST IRTF 5Z SM. V; Z YFI K[S[SD m T[GL HF6SFZL D/JJFGM CTMP VF DF8[**240** I MUS jI ISTVM VG[**240** IAGI MUS jI ISTVMGMIGNX'DA; DFJX SZJFDA VFjIM CTMP 5\$Z6v3 DA NXF'jI F D]HAGL IMHGf VTU'T **480** jI ISTVMG[jI ISTUT DFICTL5+S4 **Bhogle and Prakash** ZIRT DGMU{7FIGS ; }BFSFZL T], F VG[**Charles D. Spillberger** ZIRT **State Trait Anxiety Inventory** V[D S], +6 5] GFJ, LVM VF5LG[DFICTL V\$+LT SZJFDA VFJL CTLP

SM. 56 ; XMMG SFI 'DF\ ; XWWS DF8[; FYL DctJ5)6" SFI " VSI+T SZ[, L
 DFICTLG\ 5yYSZ6 VG[VYW8G SZJFG\ CMI KP 5: T]T ; XMMGGF\ C[T]VMG[wI FGDF\
 ZFBLG[H[X]I V8S/M sSD GP1 YL 66f ZRL CTL4 T]GL RSF; 6L DF8[DFICTLG\
 JUL'SZ6 VG[VFSOFXF: +LI IJ` , [F6 SZJFDF\VFjI]CT]P VF IJ` , [F6 I+DFUL"
 IJRZ6 5yYSZ6 **L.S.D.** VG['t' U]6MTZ H]JL VFSOFSLI 5]I]ISTVM äZF SZJFDF\
 VFjI]CT]P ; DU| VeIF; G\ VFIMHG A[IJEFUDASZJFDF\VFjI]CT]P T]YL
 5IZ6FDGL ZH]VFT VG[RRF" 56 A[IJEFUDASZJFDF\ VFJL KP 5]SZ6GF\5]YD
 IJEFUDA]I ISTGM 5]SFZ sI MUS VG[IAGI MUSf4 HFIT s: +LVM VG[5]-QFMF VG[
 pDZ (21 YL 35 JQF4 36 YL 50 JQF4 VG[51 VG[T]YL JW] JQF) GL DGMJ{7FIGS
 ;]BFSFZL4 5IZI: YITHgI v5]U8I]STIRTF T]DH DGMJ{7FIGS ;]BFSFZLGF\ 13 38SM
 5Z D]I T]DH VFTZIS]I FtDS V; ZM HF6JF DF8[X]I ptS<5GF GP 1 YL 64 GL ZRGF
 SZJFDF\VFJL CTL VG[T]GL RSF; 6L 2x2x3 0]8MZI , I MHGF äZF SZJFDF\VFJL
 CTL T]VU]GF 5yYSZ6 SZ[, 5IZ6FDGMG ; DFJX SI M KP

IJEFU -2 GL I MHGF VTUT]I ISTGL DGMJ{7FIGS ;]BFSFZL VMK]4 Dwi D S]
 JWFZ[CMI T]GL V; Z T]VMGL 5IZI: YITHgI 5]U8 I]ST IRTF 5Z YFI K[S[SD m
 T]GL HF6SFZL D/]JFGF\ C[T]YL X]I ptS<5GF GP 65 VG[66 GL ZRGF SZJFDF\VFJL
 CTL VG[T]GL RSF; 6L 't' test äZF SZJFDF\ VFJL CTIP VF ; NE'DF\ 5F%T YI[,
 5IZ6FDGL RRF" IJEFUv 2 DASZJFDF\VFJL KP

4.2 IJEFUv1

jI ISTGM 5]SFZ4 HFIT VG[pDZGF ; NE'DF\ T]VMGL DGMJ{7FIGS ;]BFSFZL4
 5IZI: YITHgI 5]U8 I]ST IRTF VG[DGMJ{7FIGS ;]BFSFZLGF\ 13 38SM

IJEFUv 1 VTUT I MHGFDF\ jI ISTGM 5]SFZ4 jI ISTGL HFIT VG[pDZ VF
 +6] R, MGL V; Z jI ISTGL DGMJ{7FIGS ;]BFSFZL VG[5IZI: YITHgI 5]U8 I]ST
 IRTF 5Z S]JL YFI K[T] HF6JF DF8[D]I tJ[2x2x3 0]8MZI , I MHGF 5; N SZJFDF\
 VFJL CTIP VCL] jI ISTGM 5]SFZ4 jI ISTGL HFIT VG[pDZ VF +6] R, MG[:JT+

5IZJtI "TZLS[5; N SI F" CTF VG[jI ISTVMGL DGMU{7FIGS ;]BFSFZL4 5IZI:YITHgI
 5|U8 IJST IRTF VG[DGMU{7FIGS ;]BFSFZLGF\ 13 38SMG[VFWFIZT 5IZJtI M" TZLS[
 ,]DFD\ VFjI F CTFP jI ISTGF\ 5|SFZGL A[S1FF sI MUS VG[IAGI MUS jI ISTVMF GSSL
 SZJFD\ VFJL CTLP jI ISTGL HFITGL A[S1FFVM s: +LVM VG[5]-QFMF GSSL SI F" CTF
 VG[pDZGL +6 S1FF (21 YL 35 JQF\ 36 YL 50 JQF\ VG[51 VG[T|YL JW] JQF\ GSSL
 SZJFD\ VFJL CTLP V8S/GL RSF; 6L DF8[I+DFUL" IJRZ6 5yYSZ6GM p5I MU
 SIM CTMP ; FY'S VFTZIS| FGL J3] RSF; 6L DF8[L.S.D. XMWJFD\ VFjI]CTP 5F%T
 5IZ6FDNGL RRF" VF 5|DF6[SZJFD\ VFJL KP

4.2.1 jI ISTGM 5|SFZ4 HFIT VG[pDZGF\ ; NE'DF\ T|VMGL DGMU{7FIGS ;]BFSFZLP

2x2x3 O|S8MZI , I MHGF VTU" jI ISTGM 5|SFZ4 jI ISTGL HFIT VG[pDZ VF
 +6[:JT+ 5IZJtI MGL jI ISTGL DGMU{7FIGS ;]BFSFZL 5Z D|I VG[VFTZIS| FtDS
 V; Z HF6JF DF8[I+DFUL" IJRZ6 5yYSZ6GL 5wWIT äFZF RFZ X|I ptS<5GFGL
 sSD GP 1 YL 4 f GL RSF; 6L DF8['F' D|I M XMWJFD\ VFjI F CTFP VF ; NE'DF\ D/,
 IJIJ3 VFSOFSLI IJUTMSM8S GP 4.1, 4.2 VG[4.3 DF\ZH]SZJFD\ VFJL KP

SM8S GP 4.1

O|S8MZI , I MHGF VTU" IJIJW H|VMGL DGMU{7FIGS
 ;]BFSFZLGF 5F%TFSMGF DwI SM TYF 5|DF6 IJR, GM
2x2x3 O|S8MZI , I MHGF (N=480)

	A₁ n = 240		A₂ n = 240	
	B₁	B₂	B₁	B₂
pDZ	:+LVM	5]-QFM	:+LVM	5]-QFM
	120	120	120	120

C₁ 21 YL 35 JQF"	n=40	n=40	n=40	n=40
	M=23.26	M=24.1	M=19.68	M=19.28
	S.D.= 2.93	S.D.= 2.68	S.D.= 3.14	S.D.= 3.34
C₂ 36 YL 50 JQF"	n=40	n=40	n=40	n=40
	M=23.64	M=23.63	M=18.08	M=19.93
	S.D.= 2.79	S.D.= 2.96	S.D.= 5.07	S.D.= 3.98
C₃ 51 & T[YL JW] JQF"	n=40	n=40	n=40	n=40
	M=23.35	M=22.25	M=18.76	M=18.22
	S.D.= 2.72	S.D.=4.23	S.D.= 4.07	S.D.= 4.39

SM8S GP 4.2

jI ISTGM 5\$FZ4 jI ISTGL HFIT VG[pDZGF; NE'DF\ DGMU{7FIGS ; }BFSFZL
 VUJGF ANOVA GM; FZFX
 2x2x3 0\$8MZI , I MHGF (N=480)

Variable	5.5	df	Mean Square	F	Sig.
AsjI ISTGM5\$FZf	2098.206	1	2098.206	151.676	0.01
BsHFITf	9.904	1	9.904	.716	NS
CspDZf	39.732	1	39.732	2.872	NS
AxB	15.510	1	15.510	1.121	NS
AxC	32.232	1	32.232	2.330	NS
BxC	4.286	1	4.286	.310	NS
AxBxC	3.769	1	3.769	.272	NS
W.S.S.	6515.587	472	13.834		
Total		479			

NS : ; FY'S GYL

Sig. Leval : 0.05 = 3.96

0.01 = 6.96

SM8S GP 4.3

H\YMGL DGMU{7FIGS ; }BFSFZLGF\DWI SM TYF DWI SM JrR\GF\TOFJTM

:JT+ 5IZJtIM	S1FFVM	; bIF	DwI S	TOFJT
jI ISTGM5\SFZ (A)	A ₁ IMUS jI ISTVM	240	23.37	4.38
	A ₂ IAGI MUS jI ISTVM	240	18.99	
HFIT (B)	B ₁ :+LVM	240	21.13	0.10
	B ₂ 5]-QFM	240	21.23	
pDZ (C)	C ₁ 21 YL 35 JQF"	160	21.58	1/2 = 0.26
	C ₂ 36 YL 50 JQF"	160	21.32	1/3 = 0.94
	C ₃ 51 & T\YL JW\JQF"	160	20.64	2/3 = 0.26

4.2.1.1 jI ISTGM5\SFZ VG[DGMU{7FIGS ; }BFSFZLP

5:JT ; XWVG VwI I GGM V\ S DpI C[T] IMUS VG[IAGI MUS jI ISTVM JrR[DGMU{7FIGS ; }BFSFZLGL AFATDFA\SM. ; FY'S TOFJT K[S[S[D m T[GL HF6SFZL D/JJFGM CTMP HgDYL , . G[D'tI]5I\T DFGJL SM. G[SM. 5\JIT SZTM ZC[K\ DFGJLGL SM. 56 5\JITG\VVTD wI [I TM DFGI; S ; }B4XFIT4 VG[; \TMD D/JJFG\ CMI K\ VG[T[D/JJF DF8\GL NZ\ jI ISTGL ÒJGX{ L H\NlvH\NL CMI K\ 5:JT VwI I GDF\ A[5\SFZGL ÒJGX{ LGL JFT SZJFDF\ VFJL K\ (1) IMUS VG[(2) IAGI MUSP VCL\; XWVSG[V[HF6JFGL Ò7F; F Y. S\ IMUS jI ISTVM VG[IAGI MUS jI ISTVMGL DGMU{7FIGS ; }BFSFZL JrR[; FY'S TOFJT K[S[S[D m T[HF6JFGF C[TYL VFSOFXF: +LI 'F'S; MBL äFZF GLR[NXF"J, X\I ptS<5GFGL RSF; 6L SZJFDF\VFJL CTLP

X\I ptS<5GF GR 1. ccIMUS jI ISTVM VG[IAGI MUS jI ISTVMGL DGMU{7FIGS ; }BFSFZLGF\5\F%TF\SMGF DWI SM JrR[SM. ; FY'S TOFJT GYLPcc

p5ZMST SM8S GP 4.3 G\IGZL1F6 SZTF H6FI K[S\ VCL\A₁ V\B, [S\ IMUS jI ISTVMGL DGMU{7FIGS ; }BFSFZLGF\ 5\F%TF\SMGM DWI S 23.37 K\ HI FZ[A₂

V_B, [S_A IAGI MUS jI ISTVMGL DGMJ{7FIGS ; }BFSFZLGF 5F%TF'SMGMDwI S **18.99** K_P
H[DGL JrR[**4.38** H_B, M JWfZ[TOFJT HmUF D/[K_P H[G\ 'F' D}I **151.68** 5F%T YI\
K_P H[**0.01** S1FFGL ; FYSTF WZFJ[K_P TYL p5ZMST X_gI ptS<5GFGM VI:JSFZ SZTF
SCL XSFI S_A IAGI MUS jI ISTVM SZTF I MUS jI ISTVM ; FY'S ZLT[JW] DGMJ{7FIGS
; }BFSFZL VG]EJ[K_P

DwI SM JrR[GM TOFJT :50856[; RJ[K[S_A I MUS jI ISTVM RMSS; 56[JW]
DGMJ{7FIGS ; }BFSFZL VG]EJ[K_P VCL\ 5IZ6FDG\ XSI SFZ6 VF5TF SCL XSFI
S_A I MJ SZGFZ jI ISTGL INGRIF" I MJ G SZTL jI IST SZTF V, U CMI K_P IGI IDT
wI FG4 5F6FI FD4 D]SF JUZ[I MUS IS| F jI ISTG\ DGMA/ DHAJT AGEJ[K_A TYL
jI ISTGF 5MTFGF DG 5Z IGI\+6 CMI K[TYL SM. 56 ; D:IFGM T[V; ZSFZS pS,
, FJL XS[K_P p5ZFT VeIF; M ATEJ[K[S_A IJIJW I MUIS| FVM SZJFYL jI ISTG\
XFZLIZS :JF:yI ; F~ ZC[K_P H[GL IJWFI S V; Z T[GFA DFGI; S :JF:yI 5Z 56 YFI
K_A H[YL jI IST ; }B VG[; \TMOF 5|DF6DF\ JW] D/[JL XS[K_P TYL H SNFR I MUS
jI ISTVMDF\ IAGI MUS jI ISTVM SZTF DGMJ{7FIGS ; }BFSFZLGF\ 5DF6 JW] CM. XSP
4.2.1.2 jI ISTVMGL HFIT VG[T[VMGL DGMJ{7FIGS ; }BFSFZL

:+LVM VG[5]-QFMGL E)DSF VF56F ; DFHDA H]NL H]NL HmUF D/[K_P
:+LVMG[VD]S H 5]SFZGF\ SFI "SZJFGF\ CMI K[VG[VD]S 5]SFZGL H OZHM AHFJJFGL
CMI K_A HIFZ[5]-QFMV[:+LVMYL H]NF H SFI M'SZJFGF\ CMI K_A TM VF HFITUT
TOFJTMGL V; Z DGMJ{7FIGS ; }BFSFZL 5Z YFI K[S[S]D T[HF6JFGAVFXI YL 'F'
S; MBL äfZF GLR[NXF"J], X_gI ptS<5GFGL RSF; 6L SZJFDF\ VFJL CTLP

X_gI ptS<5GF GP **2.** cc :+LVM VG[5]-QFMGL DGMJ{7FIGS ; }BFSFZLGF\ 5F%TF'SMGF
DwI SM JrR[SM. ; FY'S TOFJT GYLP cc

SMQ8S GP **4.2** G\ IGZL1F6 SZTF H6FI K[S_A HFITGA ; NE'DA :+LVM VG[
5]-QFMGL DGMJ{7FIGS ; }BFSFZLGF\ 'F' D}I **0.72** 5F%T YI\ K_A H[**0.05** S1FFV[; FY'S
GYLP SMQ8S GP **4.3** G\ IGZL1F6 SZTF H6FI K[S_A B₁ V_B, [S_A :+LVMGL DGMJ{7FIGS

;]BFSFZLGF\5F%TF\$MGM DwI S **21.13** K[VG[B₂ Vß, [S# 5]-QFMGL DGMU{7FIGS
 ;]BFSFZLGF\5F%TF\$MGM DwI S **21.23** K# H[DGL JrR[GM TOFJT DF+ **0.10** K# H[
 5DF6DA 36M IGCJTÿ KP 8SDA 5IZ6FDM 5ZYL SCL XSFI S# :+LVM VG[5]-QFM
 , UEU ; ZBF 5DF6DA H DGMU{7FIGS ;]BFSFZL VGJEJ[KP T[YL X#I ptS<5GFG[
 I YFJT ZFBTF SCL XSFI S# :+LVM VG[5]-QFMGL DGMU{7FIGS ;]BFSFZLGF\5F%TF\$MGA
 DwI SM JrR[SM. ; FY'S TOFJT GYLP T[G]; VEIJT SFZ6 VF5TF SCL XSFI S# :+LVM
 VG[5]-QFMV[E, [5MTFGL HFITG[VG]-5 SFI M SZJFGA CMI 4 56 AgG[G[5MTFGF
 SFI MDA VD\$ D#S, LVM VFJ[K# AgG[G; D: I F ; HF" K[VG[T[DGA SFI MDA; TMD G
 D/L XSTM CMI P SNFR T[YL H :+LVM VG[5]-QFMGL DGMU{7FIGS ;]BFSFZLDA TOFJT
 HMUF GIC D/TM CMI T[U]AGL XSP

4.2.1.3 jI ISTVMGL pDZ VG[T[VMGL DGMU{7FIGS ;]BFSFZL

5: T]T VwI I GDA H]NLvH]NL pDZ WZFJTL jI ISTGL DGMU{7FIGS ;]BFSFZLDA
 TOFJT HMUF D/[K[S[S[D T[HF6JFGA VFXI YL pDZGL +6 S1FFVM GSSL SZJFDA
 VFJL CTLP

- (1) **21** YL **35** JQF"
- (2) **36** YL **50** JQF"
- (3) **51** & T[YL JW] JQF"

VF +6[H]YGL pDZGL jI ISTVMGL DGMU{7FIGS ;]BFSFZLDA ; FY'S TOFJT
 HMUF D/[K[S[S[D T[HF6JF DF8['F' S; MBL äFZF GLR[NXF"J, X#I ptS<5GFG
 RSF; 6L SZJFDA VFJL CTLP

X#I ptS<5GF GR **3.** H]NLvH]NL pDZ WZFJTL jI ISTVMGL DGMU{7FIGS
 ;]BFSFZLGF\5F%TF\$MGA DwI SM JrR[SM. ; FY'S TOFJT
 GYLP

SMQ8S GP **4.2** G] IGZL1F6 SZTF H6FI K[S# pDZGA; NE'DF]jI ISTVMGL
 DGMU{7FIGS ;]BFSFZLG] 'F' D#I **2.872** 5F%T YI] K# H[**0.05** S1FFV[; FY'S GYLP

SMQ8S GP **4.3** G] IGZL1F6 SZTF H6FI K[S[C₁ Vß, [S[**21** YL **35** JQF"GL pDZ

WZFJTL jI ISTVMGL DGMU{7FIGS ; }BFSFZLGF 5F%TFSMGMDwI S **21.58** Kf 36 YL 50
 JQF"GL pDZ WZFJTL jI ISTVMGL DGMU{7FIGS ; }BFSFZLGF 5F%TFSMGMDwI S **21.32** Kf
 T|DH 51 JQF" VG[T|YL JWFZ[pDZ WZFJTL jI ISTVMGL DGMU{7FIGS ; }BFSFZLGF
 5F%TFSMGMDwI S **20.64** KP +6| H)YMGf DwI SM JrR[GM TOFJT GICJT KP 8}SDF
 5IZ6FDM 5ZYL SCL XSFI Sf H|NLvH|NL pDZ 3ZFJTL jI ISTVMGL DGMU{7FIGS
 ; }BFSFZL JrR[; FY'S TOFJT GYLP T|YL X|I ptS<5GFGL I YFJT ZFBJFDF VEFJ[KP
 TG|; VEIJT SFZ6 VF5TF SCL XSFI Sf DGMU{7FIGS ; }BFSFZL V[jI ISTGM jI ISTtJ4
 :JF:yI 4 jI ISTG| , uGÒJG JUZ[AFATM 5Z VFWFZ ZFB[Kf T|YL SNFR pDZG|
 38S TG[V; Z GIC SZT| CMI T|U| AGL XSP pDZGL SM. 56 S1FFV[jI IST ; '5}b"
 DGMU{7FIGS ; }BFSFZLGM VG|EJ SZL XSP NZS pDZ[jI IST DF8[DGMU{7FIGS
 ; }BFSFZLGL VUtI TF K[H T|U| VY'38G 5F%T 5IZ6FD 5ZYL SCL XSFI KP

4.2.1.4 jI ISTVMGM 5}SFZ4 HFIT VG[pDZGL VFTZIS|I FGL DGMU{7FIGS

; }BFSFZL 5Z V; ZP

jI ISTGM 5}SFZ sI MUS VG[IAGI MUSf4 HFIT s: +LVM VG[5}-QFMF VG[
 pDZ s**21** YL **35** JQF" **36** YL **50** JQF" **51** & T|YL JW] JQF" VF +6| 5IZJtI MGL 5Z:5Z
 VFTZIS|I FGL jI ISTVMGL DGMU{7FIGS ; }BFSFZL 5Z S|UL V; Z YFI K[T[HF6JF DF8[
 'F' S; MBL äZF GLR[NXF"U|, X|I ptS<5GFGL RSF; 6L SZJFDF VEFJL CTLP

X|I ptS<5GF GR **4.** jI ISTGM 5}SFZ4 HFIT VG[pDZGL VFTZIS|I FGL ; FY'S

V; Z T|VMGL DGMU{7FIGS ; }BFSFZL 5Z YTL GYLP

p5ZMST X|I ptS<5GFGL RSF; 6L I+DFUL" IJRZ6 5yYSZ6 äZF SZJFDF
 VEFJL CTLP IJ|JW :TZGL VFTZIS|I FtDS V; ZM H|DSf jI ISTGM 5}SFZ VG[HFIT
 (AxB), jI ISTGM 5}SFZ VG[pDZ (AxC), HFIT VG[pDZ (BxC), jI ISTGM 5}SFZ4
 HFIT VG[pDZ (AxBxC) V|D S|, RFZ VFTZIS|I FGL DGMU{7FIGS ; }BFSFZL 5Z
 V; Z HF6JF DF8['F' D}I M XMBJFDF VEFJ| F CTFP

SMQ8S GP **4.2** G| IGZL1F6 SZTF H6FI K[Sf jI ISTGM 5}SFZ VG[T|VMGL

HFIT ($A \times B$), GL VFTZIS|I FtDS V; ZG\ 'F' D}, I **1.21** 5F%T YI\ K\ H[**0.05** S1FFV[; FY'S GYL4 T\YL SCL XSFI S\ jI ISTGM 5\SFZ VG[HFITGL VFTZIS|I FtDS V; Z T\VMGL DGMU{7FIGS; }BFSFZL 5Z HMJF D/TL GYLP

jI ISTGM 5\SFZ VG[T\VMGL pDZ ($A \times C$) GL VFTZIS|I FtDS V; ZG\ 'F' D}I **2.33** 5F%T YI\ K\ H[**0.05** S1FFV[; FY'S GYL T\YL SCL XSFI S\ jI ISTGM 5\SFZ VG[T\VMGL pDZGL VFTZIS|I FtDS V; Z T\VMGL DGMU{7FIGS; }BFSFZL 5Z HMJF D/TL GYLP

jI ISTVMGL HFIT VG[pDZ ($B \times C$) GL VFTZIS|I FtDS V; ZG\ 'F' D}I **0.31** 5F%T YI\ K\ T[56 **0.05** S1FFV[; FY'S GYLP T\YL SCL XSFI S\ jI ISTVMGL HFIT VG[T\VMGL pDZGL VFTZIS|I FtDS V; Z T\VMGL DGMU{7FIGS; }BFSFZL 5Z HMJF D/TL GYLP

jI ISTVMGM 5\SFZ4 HFIT VG[pDZ ($A \times B \times C$) GL VFTZIS|I FtDS V; ZG\ 'F' D}I **0.45** 5F%T YI\ K\ T[56 **0.05** S1FFV[; FY'S GYLP T\YL X\jI ptS<5GFG[I YFJT ZFBTF SCL XSFI S\ jI ISTGM 5\SFZ4 HFIT VG[pDZGL VFTZIS|I FGL; FY'S V; Z T\VMGL DGMU{7FIGS; }BFSFZL 5Z HMJF D/TL GYLP

4.2.2 jI ISTGM 5\SFZ4 HFIT VG[pDZGF; NE'DF\ DGMU{7FIGS; }BFSFZLGF\ **13 38SM**

IJEFUv1 VTU'T I MHGFDF\ jI ISTGM 5\SFZ4 HFIT VG[pDZ VF +6|I GL R, MGL V; Z DGMU{7FIGS; }BFSFZLGF\ **13 38SM** 5Z S\JL YFI K[T[HF6JF DF8[D\pI tJ[**2x2x3 Factorial design** GM p5I MU SZJFDF\ VFjI M CTP VCL\jI ISTGM 5\SFZ HFIT VG[pDZ VF +6| R, MG[:JT\+ 5IZJtI M TZLS[5; N SIF" CTFP VG[DGMU{7FIGS; }BFSFZLGF\ IJIJ3 **13 38SM**G[5ZT\+ 5IZJtI "TZLS[, \JFDF\ VFjI F CTFP jI ISTGF 5\SFZGL A[S1FF sI MUS VG[IAGI MUS jI ISTVMF GSSL SZJFDF\ VFJL CTFP

HFITGL A[S1FF s: +LVM VG[5]-QFMF GSSL SZL CTL VG[pDZGL +6 S1FF (21 YL 35 JQF⁴ 36 YL 50 JQF⁴VG[51 & T[YL J3] JQF⁴) V[D GSSL SZJFDA\VFJL CTL⁴ V8S/GL RSF; 6L DF8[I+DFUL¹ IJRZ6 5yYSZ6GM p5IMU SIM'CTMP 5IZ6FDGL RRF" VG[VY³8G GLR[5]DF6[KP

4.2.2.1 jI ISTGM 5[SFZ4 HFIT VG[pDZGF ; NE'DFA\ DGMU{7FIGS ; }BFSFZLG\ 38S ; \TMDFP

2x2x3 O[8MZI , I MHGF V\TU" jI ISTGM 5[SFZ4 HFIT VG[pDZ VF +6[:JT+ 5IZJtI MGL DGMU{7FIGS ; }BFSFZLG\ V[38S c; \TMDFc 5Z D]pI VG[VFTZv IS|I FtDS V; ZM YFI K[S[SD T[HF6JF DF8[I+DFUL¹ IJRZ6 5yYSZ6GL 5wWIT äZFZ 4 X]I ptS<5GF sSD GP 5 YL 8 f GL RSF; 6L DF8['F' D}I M XMWJFDA\VFjI F CTFP VF ; NE'DFA\ /, IJIJ3 VFSOFSLI IJUTMSM8S GP 4.4, 4.5 VG[4.6 D\ZH} SZJFDA\VFJL KP

SM8S GP 4.4

O[8MZI , I MHGF V\TU" IJIJW HYMGFA DGMU{7FIGS ; }BFSFZLGF 38S ; \TMDFGF DwI SM TYF 5]DF6 IJR, GM **2x2x3** O[8MZI , I MHGF (N=480)

	A₁ I MUS jI ISTVM n = 240		A₂ I AGI MUS jI ISTVM n = 240	
	B₁ :+LVM	B₂ 5]-QFM	B₁ :+LVM	B₂ 5]-QFM
pDZ	120	120	120	120
C₁ 21 YL 35 JQF"	n=40 M=3.6 S.D.= 0.70	n=40 M=3.75 S.D.= 0.54	n=40 M=3.7 S.D.= 0.57	n=40 M=3.2 S.D.=1.00

C₂ 36 YL 50 JQF"	n=40	n=40	n=40	n=40
	M=3.63	M=3.50	M=3.40	M=3.55
	S.D.= 0.86	S.D.= 0.74	S.D.= 0.99	S.D.= 1.0
C₃ 51 & T[YL JW] JQF"	n=40	n=40	n=40	n=40
	M=3.43	M=3.45	M=2.93	M=2.88
	S.D.= 0.89	S.D.=0.95	S.D.= 1.21	S.D.= 1.29

SM8S GP 4.5

jI ISTVMGM 5|SFZ4 HFIT VG[pDZGF\ ; NE'DF\ DGMJ{7FIGS ; }BFSFZLGF 38S
; TMDf VUJGF ANOVA GM ; FZFX
2x2x3 0|8MZI , I MHGF (N=480)

Variable	df	S.S.	MASSQ	F	Sig. level
A sjI ISTGM5 SFZf	1	5.859	5.859	6.96	0.01
B sHFITf	1	0.176	0.176	0.208	NS
C spDZf	1	0.301	0.301	0.355	NS
AxB	1	5.104	5.104	0.60	NS
AxC	1	2.709	2.709	3.20	NS
BxC	1	2.501	2.501	2.95	NS
AxBxC	1	2.301	2.301	2.71	NS
W.S.S.	472	400.138	0.848		
Total	479	6022.000	480		

SM8S GP 4.6

H)YMGF\ DGMJ{7FIGS ; }BFSFZLG\ 38S ; \TMDGF DwI SM TYF DwI SM JrR[G\ TOfJTM

:JT\ 5IZJtIM	S1FFVM	; bIF	DwI S	TOfJT
(A)	A ₁ I MUS jI ISTVM	240	3.56	0.28
	A ₂ IAGI MUS jI ISTVM	240	3.28	
(B)	B ₁ :+LVM	240	3.45	0.11
	B ₂ 5]-QFM	240	3.39	
(C)	C ₁ 21 YL 35 JQF"	160	3.56	1/2 = 0.04
	C ₂ 36 YL 50 JQF"	160	3.52	1/3 = 0.39
	C ₃ 51 & T\YL JW] JQF"	160	3.17	2/3 = 0.35

4.2.2.1.1 jI ISTGM 5}SFZ VG[T\VMGL DGMJ{7FIGS ; }BFSFZLG\ 38S ; \TMD

5]:TJT ; XMMG VwI I GGM V}S C[T] DGMJ{7FIGS ; }BFSFZLG\ IJ3 38SMGM
 VeIF; SZJFGM CTMP ; \TMD V[DGMJ{7FIGS ; }BFSFZLG\ H V}S 38S KP VCL\ ; \TMD
 V}B, [jI ISTG\ , uGÒJG4 XFZLIZS VG[DFGI; S :JF:yI VG[; DU|ÒJG ; \TMDSFZS
 K[S[SD m T[VVU]GL DFICTL VF 38S äZF D/[KP NZ} jI ISTGL VITD . rKF TM
 ; \TMD D/JJFGL H CMI KP VG[V[DF8[jI IST ; TT 5|tGXL, CMI KP 5]:TJT
 VwI I GDFjI ISTG\ ; \TMD 5Z jI ISTGF 5}SFZGL sI MUS jI ISTVM VG[IAGI MUS
 jI ISTVMF V; Z YFI K[S[SD T[HF6JFG\ VFXI YL VFSOFXF: +LI 'F' S; MBL äZF
 GLR[NXF]J, X}I ptS<5GFGL RSF; 6L SZJFDF\ VFJL CTLP

X}I ptS<5GF GR **5**. I MUS VG[IAGI MUS jI ISTVMGF ; \TMDGF DGMJ{7FIGS
 ; }BFSFZLG\ 38SGF\ 5}F%TF}SGF DwI SM JrR[SM. ; FY'S
 TOfJT GYLP

SM8S GR **4.5** G\IGZL1F6 SZTF H6FI K[S} jI ISTGF 5}SFZGF ; NE'DF T\VMGF
 ; \TMD DF8G\ 'F' D}I **6.96** 5}F%T YI \K} H[**0.01** S1FFV[; FY'S K} T\YL p5ZMST X}I
 ptS<5GF GM VI: JSFZ SZJFDF\ VFJ[KP SM8S GR **4.6** G\IGZL1F6 SZTF\ H6FI K[S}

I MUS jI ISTVMGF ; \TDFGF 5F%TFSMGM Dwl S **3.56** K# HI FZ[IAGI MUS jI ISTVMGF ; \TDFGF 5F%TFSMGM Dwl S **3.44** KP TDGL JrR[GM TOFJT **0.28** KP Dwl SM JrR[GM TOFJT :50856[; RJ[K[S# I MUS jI ISTVMDF IAGI MUS jI ISTVM SZTF ; \TDF JW] HMJF D/[KP

VCL\ 5IZ6FDG\ XSI SFZ6 VF5TF SCL XSFI S# I MUS jI ISTGL ÒJGX{ L4 IJRFZX{ L4 ÒJG 5#I GM VIEUD IAGI MUS jI ISTVM SZTF HNM CMI T\J\AGL XSP VIC\ ; \TDFGM VY" jI ISTG\ , uGÒJG :JF:yI VG[; DU| ÒJG V\JM SZJFDF\VFj I M KP I MUS jI ISTGL ÒJGX{ LDF IGI IDT wI FG4 5F6FI FD4 IJIJW VF; GM S; ZTM JUZ[GM ; DFJX YFI KP VF AWL IS| FVMYL jI ISTG\XFZLIZS :JF:yI GL ; FY[CSFZfDS IJRFZ6F 56 IJS; [KP SNFR VF SFZ6[H I MUS jI ISTVMDF IAGI MUS jI ISTVM SZTF ; \TDFG\ 5|DF6 JW] CMI T\J\AGL XSP

4.2.2.1.2 jI ISTVMGL HFIT VG[T\VMGM ; \TDFP

36F 5IZA/MDF HFITUT TOFJT HMJF D/TM CMI KP EFZTLI ; DFHDF :+LVM U'IC6LGL E)DSF EHJ[K# HI FZ[5]-QF p5Z VFIY'S HJFANFZL CMI KP U'IC6LVM VFIY'S ZLT[5]-QF 5Z VJ, \AT CMI K# :+Lv5]-QFGF VF HFITUT TOFJTGL V; Z T\VMGF ; \TDF 5Z YFI K[S[S]D T[HF6JFGF VFXI YL 'F' S; NBL äZF GLR[NXF"J, XgI ptS<5GFGL RSF; 6L SZJFDF\VFJL CTLP

XgI ptS<5GF GP **6.** :+LVM VG[5]-QFMGF ; \TDFGF\ DGMJ{7FIGS ; JBSFZLGF 38SGF\ 5F%TFSMGF Dwl SM JrR[SM. ; FYS TOFJT GYLP

SM8S GP **4.5** G\ IGZL1F6 SZTF H6FI K[S# HFITGF ; NE'DFjI ISTVMGF ; \TDFG\ 'F' D}I **0.21** 5F%T YI\ K# H[**0.05** S1FFV[; FYS GYLP SM8S GP **4.6** G\ IGZL1F6 SZTF\ H6FI K[S# :+LVMGF ; \TDFGF\ 5F%TFSMGM Dwl S **3.45** K# VG[5]-QFMGF ; \TDFGF\ 5F%TFSMGM Dwl S **3.39** KP AgG[GF Dwl SM JrR[GM TOFJT DF+ **0.11** K# H[5|DF6DF\ 36M VMKM KP 8)SDF\ 5IZ6FDM 5ZYL SCL XSFI S# :+LVM VG[5]-QFM , UEU ; ZBF 5|DF6DF\ H ; \TDF VG|EJ[KP T\YL XgI ptS<5GFGL I YFJT ZFBTF

SCL XSFI S# :+LVM VG[5]-QFMGF; TMDFGF 5F%TFSMGF DwI SM JrR[SM. ; FY'S TOFJT GYLP TG] ; EIJT SFZ6 VF5TF SCL XSFI S# CJ[:+LVM 56 5Z5ZFUT U'IC6LGL E)DSFDFYL ACFZ VFJL IX1F6 , [TL Y. KP :+LVM 56 GMSZL VG[ji JCFZ SZTL Y. K# ; DFHDF\5C, F SZTF JT'DFGDF\ :+LVMGF\NZHHFDF\ ; JWFZM YIM K# SNFR VFJF SFZ6MG[, LW[:+LVM 5]-QFMGF; TMDF JrR[; FY'S TOFJT HMJF D?IM G CMI Tj] CM. XSP

4.2.2.1.3 ji ISTGL pDZ VG[TVMGL DGMJ{7FIGS ; JBSFZLG\38S ; TMDFP

ji ISTVMGF; TMDF 5Z TVMGL pDZGL (21 YL 35 JOF4 36 YL 50 JOF4 VG[51 & TYL J3] JOF") SM. V; Z YFI K[S[SD T[HF6JF DF8['F' S; MBL äZF GLR[NXF"J, XjI ptS<5GFGL RSF; 6L SZJFDF\VFJL CTLP

XjI ptS<5GF GR 7. HJNL HJNL pDZ WZFJTL ji ISTVMGF; TMDFGF\DGMJ{7FIGS ; JBSFZLGF 38SGF DwI SM JrR[SM. ; FY'S TOFJT GYLP

SM8S GP 4.5 G\IGZL1F6 SZTF H6FI K[S# ji ISTGL pDZGF ; NE'DFATVMGF ; TMDF DF8[G\ 'F' DkI 0.36 5F%T YI\ K# H[0.05 S1FFV[; FY'S GYL TYL XjI ptS<5GFGL I YFJT ZFBJFDF\ VFJ[KP SM8S GP 4.6 G\IGZL1F6 SZTF H6FI K[S# 21 YL 35 JOF" ; JMLGL pDZ 3ZFJTL ji ISTVMGF; TMDFGF\5F%TFSMGM DwI S 3.56 K# 36 YL 50 JOF" ; JMLGL pDZ 3ZFJTLji ISTVMGF; TMDFGF\5F%TFSMGM DwI S 3.52 K# VG[51 JOF"VG[TYL JWFZ[pDZ 3ZFJTF ji ISTVMGF ; TMDFGF\5F%TFSMGM DwI S 3.17 KP pDZGF +6[HYMGF DwI SM JrR[GM TOFJT sHY V\$ VG[A# HY V\$ VG[+6 TYF HY A[VG[+6f VG\$D[0.04, 0.39 VG[0.35 HMJF D/[KP VIC\HY V\$ VG[+6 V\$, [S[21 YL 35 JOFGL ji ISTVM VG[51 VG[TYL JW] pDZGLji ISTVMGF ; TMDFGF DwI SM JrR[0.39 H\$, M JWFZ[TOFJT HMJF D/[K# 21 YL 35 JOFGL ji ISTVMDF\ 51 & TYL JW] pDZGLji IST SZTF JWFZ[; TMDF HMJF D/[K# 5ZV] pDZGF +6[HYGF\DWI SMG\ 'F' DkI 0.36 H 5F%T YI\ K# H[0.05 S1FFV[; FY'S GYL4 TYL 5IZ6FDM p5ZYL SCL XSFI S# HJNLvHJNL pDZ WZFJTL ji ISTVMGF

; $\nabla T M D E G F$ $5 F \% T F S M G F$ $D w I S M J r R [; F Y S T O F J T G Y L P$

4.2.2.1.4 $j I I S T G M$ $5 \int S F Z 4$ $H F I T$ $V G [p D Z G L V F T Z I S | I F G L D G M U \{ 7 F I G S$

$D G M U \{ 7 F I G S ; \int B F S F Z L G \} 3 8 S ; \nabla T M D F$ $5 Z V ; Z P$

$j I I S T G M$ $5 \int S F Z 4$ $T \nabla M G L$ $H F I T$ $V G [H \nabla N L v H \nabla N L$ $p D Z G L + 6$ $S 1 F F V M$ $V F + 6 | I$
: $J T \nabla +$ $5 I Z J t I M G L$ $D \int I V ; Z$ $p 5 Z F T + 6 | I$ $5 I Z J t I M G L$ $5 Z : 5 Z$ $V F T Z I S | I F G L$
 $T \nabla M G F \nabla ; \nabla T M D F$ $5 Z S \int L V ; Z$ $Y F I$ $K [T [H F 6 J F D F 8 [' F ' S ; M B L$ $\ddot{a} F Z F$ $G L R [N X F \nabla J] , X \int I$
 $p t S < 5 G F G L$ $R S F ; 6 L$ $S Z J F D F \nabla V F J L$ $C T L P$

$X \int I$ $p t S < 5 G F$ **GP 8.** $j I I S T G M$ $5 \int S F Z 4$ $H F I T$ $V G [p D Z G L V F T Z I S | I F G L ; F Y S$ $V ; Z$

$T \nabla M G L$ $D G M U \{ 7 F I G S ; \int B F S F Z L G F$ $3 8 S$ $5 Z$ $Y T L$ $G Y L P$

$I J I J W : T Z G F$ $V F T Z I S | I F t D S V ; Z M$ $H F 6 J F D F 8 [I + D F U L ' I$ $I J R Z 6$ $5 y Y S Z 6$
 $S Z T F$ $j I I S T G M$ $5 \int S F Z$ $V G [H F I T (A x B) , j I I S T G M$ $5 \int S F Z$ $V G [p D Z (A x C) , H F I T$ $V G [$
 $p D Z (B x C) , j I I S T G M$ $5 \int S F Z 4$ $H F I T$ $V G [p D Z (A x B x C)$ $V \int D S] , R F Z$ $V F T Z I S | I F V M G L$
; $\nabla T M D F$ $5 Z V ; Z$ $H F 6 J F D F 8 [' F ' D \int I M X M W J F D F \nabla V F J I F$ $C T F P$

$S M D 8 S$ **GP 4.5** $G \nabla I G Z L 1 F 6$ $S Z T F$ $H 6 F I$ $K [S \nabla j I I S T G M$ $5 \int S F Z$ $V G [H F I T (A x B)$
 $G L V F T Z I S | I F G \nabla ' F ' D \int I$ **0.06** $5 F \% T$ $Y I \nabla K \nabla H [0.05$ $S 1 F F V [; F Y S$ $G Y L 4$ $T \nabla Y L$ $S C L$
 $X S F I$ $S \nabla j I I S T G M$ $5 \int S F Z$ $V G [T \nabla G L$ $H F I T G L$ $V F T Z I S | I F t D S V ; Z$ $T \nabla M G F \nabla ; \nabla T M D F$ $5 Z$
 $Y T L$ $G Y L P$

$j I I S T G M$ $5 \int S F Z$ $V G [T \nabla G L$ $p D Z (A x C)$ $G L V F T Z I S | I F t D S V ; Z G \nabla ' F ' D \int I$
3.20 $5 F \% T$ $Y I \nabla K \nabla H [5 6$ **0.05** $S 1 F F V [; F Y S$ $G Y L P$ $T \nabla Y L$ $S C L$ $X S F I$ $S \nabla j I I S T G M$ $5 \int S F Z$
 $V G [T \nabla M G L$ $p D Z G L$ $V F T Z I S | I F t D S V ; Z$ $T \nabla M G F \nabla ; \nabla T M D F$ $5 Z$ $Y T L$ $G Y L P$

$j I I S T G L$ $H F I T$ $V G [p D Z (B x C)$ $G L V F T Z I S | I F t D S V ; Z G \nabla ' F ' D \int I$ **2.95**
 $5 F \% T$ $Y I \nabla K \nabla H [5 6$ **0.05** $S 1 F F V [; F Y S$ $G Y L P$ $T \nabla Y L$ $S C L$ $X S F I$ $S \nabla j I I S T G L$ $H F I T$ $V G [$
 $p D Z G L$ $V F T Z I S | I F t D S V ; Z$ $T \nabla M G F \nabla ; \nabla T M D F$ $5 Z$ $Y T L$ $G Y L P$

$j I I S T G M$ $5 \int S F Z 4$ $H F I T$ $V G [p D Z (A x B x C)$ $G L V F T Z I S | I F t D S V ; Z G \nabla ' F ' D \int I$

2.715%T YI \ KP T[56 **0.05** S1FFV[; FY'S GYLP T[YL XjI ptS<5GFGL I YFJT ZFBTF
 SCL XSFI S# jI ISTGM 5\$FZ4 HFIT VG[pDZGL VFTZIS|I FGL ; FY'S V; Z T[VMGF
 ; \TDF 5Z YTL GYLP

4.2.2.2 jI ISTGM 5\$FZ4 HFIT VG[pDZGF ; NE'DF\ DGMJ{7FIGS ; }BFSFZLGM
 38S ; FDFÒS VFWFZ

2x2x3 O\$8MZI , I MHGF VTU" T jI ISTGM 5\$FZ4 HFIT VG[pDZ VF +6[
 :JT+ 5IZJtI MGL DGMJ{7FIGS ; }BFSFZLGM 38S c; FDFÒS VFWFZc 5Z DpI VG[
 VFTZIS|I FtDS V; ZM YFI K[S[S[D T[HF6JF DF8[I+DFUL" IJRZ6 5yYSZ6GL
 5wWIT äZFZ 4 XjI ptS<5GF sS[D GP 9 YL 12 f GL RSF; 6L DF8['F' DkI M XWJFDF
 VFjI F CTFP VF ; NE'DF\ ; FDFÒS VFWFZGF S], 5F%TF\$MGF DwI SM 5F%T YI F CTF T[
 SM8S GP GP 4.7 DF\NXF"JJFDF\ VFjI F KP T[DH jI ISTGM 5\$FZ4 HFIT VG[pDZGF
 ; NE'DF\T[VMGF\ ; FDFÒS VFWFZ 5Z U6TZL SZJFDF\ VFJ[, IJRZ6 5yYSZ6GM
 ; FZFX SM8S GP 4.8 DF\NXF"JJFDF\ VFjI F KP T[DH +6[I HYMGF\ DwI SM JrR[GF
 TOFJTM SM8S GP 4.9 DF\NXF"JJFDF\ VFjI F KP

SM8S GP 4.7

O\$8MZI , I MHGF VTU" T IJIJW HYMGF\ DGMJ{7FIGS
 ; }BFSFZLGF 38S ; FDFIHS VFWFZGF 5F%TF\$MGF DwI SM TYF 5|DF6 IJR, GM
 2x2x3 O\$8MZI , I MHGF (N=480)

	A₁ I MUS jI ISTVM n = 240		A₂ IAGI MUS jI ISTVM n = 240	
	B₁	B₂	B₁	B₂
pDZ	:+LVM	5]-QFM	:+LVM	5]-QFM
	120	120	120	120
	n=40	n=40	n=40	n=40

	M=1.58	M=1.78	M=1.10	M=1.08
	S.D.= 0.59	S.D.= 0.47	S.D.= 0.7	S.D.=0.72
C₂ 36 YL 50 JQF"	n=40	n=40	n=40	n=40
	M=1.0	M=1.63	M=1.06	M=1.10
	S.D.= 0.58	S.D.=1.04	S.D.= 0.76	S.D.=0.73
C₃ 51 & T[YL JW] JQF"	n=40	n=40	n=40	n=40
	M=1.50	M=1.43	M=1.30	M=0.93
	S.D.= 0.63	S.D.=0.59	S.D.= 0.64	S.D.=0.75

SIMONS GP 4.8

ji ISTGM 5jSFZ4 HFIT VG[pDZGF ; NE'DF\ DGMJ(7FIGS ; jBFSFZLG\ 38S
; FDFOS VFWFZ VUJGF ANOVA GM ; FZFX
2x2x3 OS8MZI , I MHGF (N=480)

Variable	df	S.S.	MASSQ	F	Sig. level
A sjl ISTGM 5jSFZf	1	27.643	27.643	64.66	0.01
B sHFITf	1	9.841	9.841	0.02	NS
C spDZf	1	0.378	0.378	0.86	NS
AxB	1	0.298	0.298	0.70	NS
AxC	1	0.646	0.646	1.51	NS
BxC	1	8.857	8.857	0	NS
AxBxC	1	0.174	0.174	0.41	NS
W.S.S.	470	200.935	0.428		
Total	477				

SIMONS GP 4.9

HjYMG L DGMJ(7FIGS ; jBFSFZLG\ 38S ; FDFIHS VFWFZGF\ DwI SMTYF

Dwl SM JrRGM TOFJTM

:JT+ 5IZJtIM	S1FFVM	; bIF	Dwl S	Dwl SM JrRGM TOFJT
jI ISTGM5SFZ (A)	A ₁ IMUS jI ISTVM	240	1.59	0.50
	A ₂ IAGIMUS jI ISTVM	240	1.09	
HFIT (B)	B ₁ :+LVM	240	.36	0.03
	B ₂ 5]-QFM	240	1.33	
pDZ (C)	C ₁ 21 YL 35 JQF"	160	1.39	1/2 = 0.04
	C ₂ 36 YL 50 JQF"	160	1.35	1/3 = 0.10
	C ₃ 51 & T YL JW JQF"	160	1.29	2/3 = 0.06

4.2.2.2.1 jI ISTGM5SFZ4 VG[T|VMGL DGMU{7FIGS ; }BFSFZLG}38S ; FDFÒS VFWFZP

5:|T|T Vwl I GGM V|S C|T| jI ISTGF\ 5SFZGL sI MUS VG[IAGI MUSf V ; Z jI ISTVMGF\ ; FDFÒS VFWFZ 5Z YFI K[S[S|D T[HF6JFGM CTMP VCL\ ; FDFÒS VFWFZ V|B, [jI ISTG[5MTFGF S|B|A4 5MT[HI F SFD SZ[K[T[:Y/4 5MTFGL VFH|AFH| Df\ZC|TF , MSM ; UF ; AWLVM JUZ[TZOYL 8|SM D/[K[S[S|D m T[VVU|GL DFICTL VF 38S äFZF D/[KP ; FDFgI ZLT[; DFHGF , MSM 5MTFG[S. ZLT[H|V[K[m 5MTFGF IJRFZMG[; DY'G VF5[K[S[S|D m T[5|DF6[jI ISTG\ :Jv5|t| 1FLSZ6 IJS ; T| CMI KP jI ISTGF\ ; FDFIHS VFWFZ T|GF IJRFZM ÒJGX\, L4 T|VMG\ ; FDFIHS JT'G JUZ[5Z VFWFZ ZFB[KP VCL\ I MUS VG[IAGI MUS jI ISTVMGF\ ; FDFIHS VFWFZDF\ ; FY'S TOFJT HMUF D/[K[S[S|D T[HF6JFGF VFXI YL VFSOFXF: +LI 'F' S ; MBL äFZF GLR[NXF|J\, X|gI ptS<5GFGL RSF ; 6L SZJFDF\ VFJL CTLP

X|gI ptS<5GF GP 9. I MUS VG[IAGI MUS jI ISTVMGF\ ; FDFIHS VFWFZGF DGMU{7FIGS ; }BFSFZLG\38SGF\ 5F%TF|SMGF Dwl SM JrR[SM. ; FY'S TOFJT GYLP

SMQ8S GP 4.8 G\ IGZL1F6 SZTF H6FI K[S\ jI ISTGFA 5\SFZGFA; NE'DFA T\VMGFA ; FDFÒS VFWFZ DF8[G\ 'F' D\I 64.66 5F%T YI\ K\ H[0.01 S1FFV[; FY'S K[T\YL p5ZMST X\I ptS<5GFGM VI: JSFZ SZJFDF\ VFJ[K\ SMQ8S GP 4.9 G\ IGZL1F6 SZTF H6FI K[S\ I MUS jI ISTVMGFA ; FDFÒS VFWFZGFA 5F%TF\SMGM Dwl S 1.59 K\ HI FZ[IAGI MUS jI ISTVMGFA ; FDFÒS VFWFZGFA 5F%TF\SMGM Dwl S 1.09 K\ T\DGL JrR\GM TOFJT 0.50 K\ Dwl SM JrR\GM TOFJT : 50856[; R\J[K[S\ I MUS jI ISTVMDF\ IAGI MUS jI ISTVM SZTF RMSS; 56[; FDFIHS VFWFZ JW\ HMUF D/[K\

VCI\ 5IZ6FDG\ ; VEIJT SFZ6 VF5TF SCL XSFI S\ I MUS , MSMGL ÒJGX\ L H V\JL CMI K[S[H\YL ; DFHGFA , MSM T\GF JT'GG[; DY'G VF5P p5ZFT V\J] DFGL XS[S\ IGI IDT I MUIS\I FVM SZJFYL T\VMDF\ CSFZf\DS IJRFZWFZF IJS; TL CMI 4 H\YL T\VMG[V\JL , FU6L YFI S\ ; DFH TZOYL T\VMG[; 5\6" ; CSFZ D/L ZC[K\ HI FZ[VFHGF VF : 5WF\DS I\JDF\ ; FDFgI DF6; G[V\J\ , FUT\ CMI S\ VF ; DFH : JFYL" K\ N\GI FDF\5MTEG\ SM. GYL T\YL H SNFR I MUS jI ISTVM SZTF IAGI MUS jI ISTVMDF\ ; FDFÒS VFWFZ JWZF[HMUF D?I M CMI T\J\ AGL XSP

4.2.2.2.2 jI ISTVMGL HFIT VG[T\VMGM ; FDFIHS VFWFZ

36F 5IZA\MDFA HFITUT TOFJT HMUF D/TM CMI K\ VIC\ jI ISTGL HFITGL s: +LVM VG[5]-QFMF V; Z T\VMGFA ; FDFÒS VFWFZ 5Z YFI K[S[S\ D m T[HF6JFGFA VFXI YL 'F' S; MBL äZFZ GLR[NXF"J\ X\I ptS<5GFGL RSF; 6L SZJFDF\ VFJL CTLP X\I ptS<5GF GR10. : +LVM VG[5]-QFMGFA ; FDFIHS VFWFZGFA DGMJ{7FIGS ; B\FSFZLGF 38SMGF 5F%TF\SMGF Dwl SM JrR[SM. ; FY'S TOFJT GYLP

SMQ8S GP 4.7 G\ IGZL1F6 SZTF H6FI K[S\ HFITGFA; NE'DFA jI ISTVMGFA ; FDFÒS VFWFZG\ 'F' D\I 0.02 5F%T YI\ K\ H[0.05 S1FFV[; FY'S GYL4 SMQ8S GP 4.9 G\ IGZL1F6 SZTF H6FI K[S\ : +LVMGFA ; FDFIHS VFWFZGFA 5F%TF\SMGM Dwl S 1.36 K[VG[5]-QFMGFA ; FDFIHS VFWFZGF 5F%TF\SMGM Dwl S 1.33 K\ T\DGL JrR\GM TOFJT DF+ 0.03 K\ H[GICJT K\ 8\SDFA 5IZ6FDM 5ZYL SCL XSFI S\ : +LVM VG[

5]-QFM ; ZBF 5]DF6DFA\ H ; FDFIHS VFWFZ VG[EJ[KP T[YL X]I ptS<5GFG[I YFJT ZFBTF SCL XSFI S# :+LVM VG[5]-QFMGA ; FDFIHS VFWFZGF 5F%TF\$MGF DwI SM JrR[SM. ; FY'S TOFJT GYLP T[G] ; VEIJT SFZ6 VF5TF SCL XSFI S# JT'DFG ; DI DFA :+LVMGL 5Z5ZFUT E)DSF VG[NZHHFDF\ 5IZJT'G VFjI\ KP JT'DFG :+LVM DF+ U'IC6L G ZC[TF NZS 1F+[SFI 'SZTL HMJF D/[KP 36F DIC, F D0/4 , pL; S, AM VI:TtJDF\VFjI F K# H[:+LVMGA 5] GMG[; DÒ VG[C, SZJF 5]I tG SZ[KP ; ZSFZ TZOYL 56 IJIJW 1F+[:+LVM DF8[VGFDT HuIF ZFBJFDF\ VFJ[KP VF A3F 5IZA/M H :+LVMGA ; FDFÒS VFWFZDF\ JWFZM SZTF CMI T]M\AGL XS# SNFR VF SFZ6[H :+LVMG[5Z5ZFUT ZLT[H[GLRM ; FDFÒS VFWFZ D/TM T'DAYL VFU/ VFJLG[5]-QFM H# , M H ; FDFIHS VFWFZ D/JTL Y. KP VF SFZ6[H JT'DFG ; DI DFA :+LVM VG[5]-QFMGA ; FDFIHS VFWFZ JrR[; FY'S TOFJT HMJF GIC D/TM CMI P

4.2.2.2.3 jI ISTVMGL pDZ VG[T]VMGL DGMU{7FIGS ;]BFSFZLGF 38S ; FDFÒS VFWFZ

jI ISTVMGA ; FDFIHS VFWFZ 5Z T]VMGL pDZ (21 YL 35 JQF# 36 YL 50 JQF# 51 VG[T]YL JW] JQFF SM. V; Z YFI K[S[S]D T[HF6JF DF8['F' S; MBL äZFZ GLR[NXF]J, X]I ptS<5GFG[RSF; 6L SZJFDF\ VFJL CTLP

X]I ptS<5GF GP**11**. H]NL H]NL pDZ WZFJTL jI ISTVMGA ; FDFÒS VFWFZGF DGMU{7FIGS ;]BFSFZLGF 38SMGF 5F%TF\$MGF DwI SM JrR[SM. ; FY'S TOFJT GYLP

SMQ8S GP **4.7** G] IGZL1F6 SZTF H6FI K[S# pDZGF ; NE'DFA jI ISTVMGA ; FDFIHS VFWFZG] 'F' D}I **0.70** 5F%T YI] KP H[**0.05** S1FFV[; FY'S GYL4 T]YL X]I ptS<5GFG[I YFJT ZFBJFDF\ VFJ[KP SMQ8S GP **4.8** G] IGZL1F6 SZTF H6FI K[S# 21 YL 35 JQF" ;]MLGL pDZ WZFJTL jI ISTVMGA ; FDFIHS VFWFZGF\ 5F%TF\$MGM DwI S **1.39** K[VG[**36** YL **50** JQF" ;]MLGL pDZ WZFJTL jI ISTVMGA ; FDFIHS VFWFZGF 5F%TF\$MGM DwI S **1.35** K[VG[**51** JQF" VG[T]YL JWfZ[pDZ WZFJTF jI ISTVMGA ; FDFIHS VFWFZGF\ 5F%TF\$MGM DwI S **1.29** KP **21** YL **35** JQF"GL jI ISTVM VG[

36 YL **50** JQF"; MGL pDZ WZFJTL jI ISTVMGF ; FDFIHS VFWFZGF DwI SM JrR[**0.04** TOFJT HMJF D/[Kp **21** YL **35** JQFGL jI ISTVM VG[**51** & T[YL JW] JQFGL jI ISTVMGF ; FDFIHS VFWFZGF 5F%TFSMGF DwI SM JrR[**0.10** Hß, M TOFJT Kp **36** YL **50** JQF" VG[**51** & T[YL JW] JQFGL jI ISTVMGF ; FDFÒS VFWFZGF 5F%TFSMGF DwI SM JrR[GM TOFJT **0.06** Kp p5ZMST pDZGF +6[| H]MGA DwI SM JrR[GA TOFJT 5ZYL :50856[SCL XSFI S# H]NL H]NL pDZ WZFJTf jI ISTVMGF ; FDFIHS VFWFZGF 5F%TFSMGF DwI SM JrR[SM. ; FY'S TOFJT GYLP

4.2.2.2.4 jI ISTGM 5\$FZ4 HFIT VG[pDZGL VFTZIS| FGL DGMU{7FIGS ;]BFSFZLG\38S ; FDFÒS VFWFZ 5Z V; ZP

jI ISTGM 5\$FZ4 T]MGL HFIT VG[H]NLvH]NL pDZGL +6 S1FFVM VF +6[:JT+ 5IZJtI MGL DpI V; Z p5ZFT +6[5IZJtI MGL 5Z:5Z VFTZIS| FGL T]MGA ; FDFIHS VFWFZ 5Z S]L V; Z YFI K[T[HF6JF DF8['F' S; MBL äZF GLR[NXF"J, X]I ptS<5GFGL RSF; 6L SZJFDF\VFJL CTLP

X]I ptS<5GF **GR12.** jI ISTGM 5\$FZ4 HFIT VG[pDZGL VFTZIS| FGL ; FY'S V; Z T]MGA ; FDFIHS VFWFZGF DGMU{7FIGS ;]BFSFZL GF 38S 5Z YTL GYLP

IJIJ3 :TZGL VFTZIS| FtDS V; ZM HF6JF DF8[I+DFUL" IJRZ6 5yYSZ6 SZTF jI ISTGM 5\$FZ VG[HFIT (**AxB**), jI ISTGM 5\$FZ VG[pDZ (**AxC**), HFIT VG[pDZ (**BxC**), jI ISTGM 5\$FZ4 HFIT VG[pDZ (**AxBxC**) V[D S], RFZ VFTZIS| FGL ; FDFIHS VFWFZ 5Z V; Z SZTF HF6JF DF8['F' D]I M XMWJFDF\VFjI F CTFP

SMQ8S GP **4.8** G]IGZL1F6 SZTF H6FI K[S# jI ISTGM 5\$FZ VG[HFIT (**AxB**) GL VFTZIS| FtDS V; ZG] 'F' D]I **0.70** 5F%T YI\K# H[**0.05** S1FFV[; FY'S GYLP T[YL SCL XSFI S# jI ISTGM 5\$FZ VG[HFITGL VFTZIS| FtDS V; Z T]MGA; FDFIHS VFWFZ 5Z HMJF D/TL GYLP

jI ISTGM 5\$FZ VG[T]MGL pDZ (**AxC**) GL VFTZIS| FtDS V; ZG] 'F' D]I **1.51** 5F%T YI\K# T[56 **0.05** S1FFV[; FY'S GYLP T[YL SCL XSFI S# jI ISTGM

5ŞFZ VG[T\MMGL pDZGL VFTZIS|l FtDS V; Z T\MMGA; FDFIHS VFWFZ 5Z HMJF D/TL GYLP

jI ISTVMGL HFIT VG[pDZ (**BxC**) GL VFTZIS|l FtDS V; ZG\ 'F' DkI **0.00**
 5F%T YI\ KP H[56 **0.05** S1FFV[; FY'S GYLP T\YL SCL XSFI S\ jI ISTVMGL
 HFIT VG[T\MMGL pDZGL VFTZIS|l FtDS V; Z T\MMGA; FDFIHS VF3FZ 5Z
 HMJF D/TL GYLP

jI ISTGM 5ŞFZ4 HFIT VG[pDZ (**AxBxC**) GL VFTZIS|l FG\ 'F' DkI **0.41**
 5F%T YI\ KP T[56 **0.05** S1FFV[; FY'S GYL4 T\YL XjI ptS<5GF[I YFJT ZFBTF SCL
 XSFI S[4 jI ISTGM 5ŞFZ4 HFIT VG[pDZGL VFTZIS|l FGL; FY'S V; Z T\MMGA
 ; FDFIHS VFWFZ 5Z HMJF D/TL GYLP

4.2.2.3 jI ISTGM 5ŞFZ4 HFIT VG[pDZGF; NE'DA DGMU(7FIGS;]BFSZLG\ 38S VY'IJICGTFP

2x2x3 OŞ8MZI, I MHGF VTU"t jI ISTVMGM 5ŞFZ4 HFIT VG[pDZ VF +6[:JT+ 5IZJtI MGL cVY'IJICGTFc 5Z DpI VG[VFTZIS|l FtDS V; ZMYFI K[S[SD T[HF6JF DF8[I+DFUL" IJRZ6 5yYSZ6 5wWIT äZF 4 XjI ptS<5GF (S\D GP 13 YL **16**) RSF; 6L DF8['F' DkI MXMMJFDF\ VFjIF CTFP VF; NE'DA D/[IJIJ3 VFSOFSLI IJUTM SM8S GP **4.10, 4.11** VG[**4.12** DF\ZH}SZJFDF\ VFJL KP

SM8S GP 4.10

OŞ8MZI, I MHGF VTU"t IJIJW HYMGL DGMU(7FIGS;]BFSZLG\ 38S VY'IJICGTFGF\ 5F%TF SMGF DwI SM TYF 5\DF6 IJR, GM **2x2x3** OŞ8MZI, I MHGF (**N=480**)

	A₁ I MUS jI ISTVM n = 240		A₂ I AGI MUS jI ISTVM n = 240	
	B₁	B₂	B₁	B₂
pDZ	:+LVM	5]-QFM	:+LVM	5]-QFM

	120	120	120	120
C₁ 21 YL 35 JQF"	n=40	n=40	n=40	n=40
	M=1.74	M=1.56	M=1.80	M=1.70
	S.D.=0.50	S.D.=0.51	S.D.=0.46	S.D.=0.56
C₂ 36 YL 50 JQF"	n=40	n=40	n=40	n=40
	M=1.8	M=1.88	M=1.68	M=1.75
	S.D.=0.38	S.D.=0.33	S.D.=1.19	S.D.=0.78
C₃ 51 & T[YL JW] JQF"	n=40	n=40	n=40	n=40
	M=1.23	M=1.93	M=1.43	M=1.68
	S.D.=0.42	S.D.=0.26	S.D.=0.67	S.D.=0.57

SM8S GP 4.11

ji ISTGM 5\$FZ4 HFIT VG[pDZGF ; WE'DF\ DGMU{7FIGS ; }BFSFZLG\ 38S
 VYIJC GTF VUJGF **ANOVA** GM ; FZFX
 2x2x3 0\$8MZI , I MHGF (N=480)

Variable	df	S.S.	MASSQ	F	Sig. level
A sjI ISTGM 5\$FZf	1	4.395	4.395	4.72	0.05
B sHFITf	1	8.452	8.452	0.09	NS
C spDZf	1	0.234	0.234	0.25	NS
AxB	1	0.234	0.234	0.25	NS
AxC	1	0.234	0.234	0.25	NS
BxC	1	2.588	2.588	0.28	NS
AxBxC	1	0.650	.650	0.70	NS
W.S.S.	472	438.962	.932		
Total	479	1973.000			

SM8S GP 4.12

HjYMG L DGMU{7FIGS ; }BFSFZLG\ 38S VYIJC GTFGF\ DwI SM TYF
 DwI SM JrR\GF\ TOFJT

:JT+ 5IZJtIM	S1FFVM	; bIF	Dwl S	Dwl SM JrRGM TOFJT
jI ISTGM 5SFZ (A)	A ₁ IMUS jI ISTVM	240	1.86	0.19
	A ₂ IAGIMUS jI ISTVM	240	1.67	
HFIT (B)	B ₁ :+LVM	240	1.61	0.14
	B ₂ 5]-QFM	240	1.75	
pDZ (C)	C ₁ 21 YL 35 JQF"	160	1.70	1/2 = 0.8
	C ₂ 36 YL 50 JQF"	160	1.78	1/3 = 0.13
	C ₃ 51 & T YL JW]JQF"	160	1.57	2/3 = 0.21

4.2.2.3.1 jI ISTGM 5SFZ VG| T|VMGL DGMJ{7 FIGS ; }BFSFZLG\ 3 8 S
VYIJICGTFP

5: T|T Vwl I GGM V|S C|T|jI ISTGF 5SFZGL sIMUS VG| IAGIMUSf V; Z
T|VMGL VYIJICGTF 5Z YFI K|S|SD T| HF6JFGM CTMP VCL\ VYIJICGTF V|
jI ISTDFAZC[, 5MTFGA ÒJG 5|I|GMV6UDM VG| jI ISTG| ÒJGDA\ VG|EJFTL
V|S, TFG\ ; }RG SZ|K|P VIC\ jI ISTVMGL VYIJICGTF 5Z T|VMGF 5SFZGL sIMUS
VG|IAGIMUSf V; Z K|S|SD T| HF6JFGA\ VFXI YL VFSOFXF: +LI 'F' S; MBL äZFZ
GLR| NXF|J|, X|I ptS<5GFGL RSF; 6L SZJFDA\ VEFJL CTLP

X|I ptS<5GF GP**13**. IMUS VG| IAGIMUS jI ISTVMGL VYIJICGTFGA
DGMJ{7 FIGS ; }BFSFZLGA\ 38SGF 5F%TFSMGF DwI SM
JrR| SM. ; FY'S TOFJT GYLP

SMQ8S GP **4.11** G\ IGZL1F6 SZTF H6FI K| S| jI ISTVMGA\ 5SFZGA ; NE'DA\
V|VMGL VYIJICGTF DF8G\ 'F' D|I **4.72** 5F%T YI\ K| H| **0.05** S1FFV| ; FY'S K|
T|YL X|I ptS<5GFGM VI:JSFZ SZJFDA\ VEFJ| K| SMQ8S GP **4.12** G\ IGZL1F6 SZTF
H6FI K| S| IMUS jI ISTVMGL VYIJICGTFGA\ 5F%TFSMGM DwI S **1.86** K| HI FZ|

IAGI MUS jI ISTVMGL VY'IJICGTFGF 5F%TFSMGM Dwl S **1.67** KP AgG|GF Dwl SM
 rR|GMT OFJT **0.19** HMJF D/[KP **Bhogle & Prakash ZIRT Psychological Well-**
being Scale Gf Manual Df\ VF5|, VY'38G 5|DF6| VY'IJICGTFGF 5F%TFSDf\ H|D
 5F%TFs J3] T|D jI ISTDF\ VY'IJICGTFG\ 5|DF6 VMK\ K[T|D VY'38G SZJDF\ VFJ|
 KP VIC\ I MUS jI ISTVMGL VY'IJICGTFGF 5F%TFSMGM Dwl S IAGI MUS jI ISTVMGL
 VY'IJICGTFGF 5F%TFSMGM Dwl S SZTF J3] HMJF D/[KP Dwl SM JrR|Gf\ TOFJT
 :50856| ; RJ| K[S\ I MUS jI ISTVM SZTF IAGI MUS jI ISTVMDF\ ; FY'S ZLT[J3]
 VY'IJICGTF HMJF D/[KP

VIC\ 5IZ6FDG\ XSI SFZ6 VF5TF SCL XSFI S\ I MU SZTL jI ISTVM IJ|JW
 I MUS IS| FVM H|JL S\ w| FG4 5F6FI FD4 VF; GM SZTL CMJFYL p5ZAT VD|S
 IGI DMG\ 5F, G SZTL CMJFYL 5MT| ÒJGDAS\ S ; FY'S 5|'IT SZTF CMI T|J] T|G|
 , FUT\ CX[HI FZ[IAGI MUS jI ISTVM ZMÒNL 5|'ITYL S8F/L U|F CMI TYL T|VMG|
 ÒJG IGZYS , FUT\ CMI T|YL SNFR H T|VMDF\ I MUS jI ISTVM SZTF J3]
 VY'IJICGTF HMJF D/L CMI T|J\ AGL XSP

4.2.2.3.2 jI ISTVMGL HFIT VG[T|VMGL VY'IJICGTFP

jI ISTVMGL HFITGL s: +LVM S[5]-QFM f V; Z VY'IJICGTF 5Z YFI K[S[S|D m
 T[HF6JFGF VFXI YL 'F' S; MBL äFZF GLR[NXF"J|, X|j| ptS<5GFGL RSF; 6L SZJDF\
 VFJL CTLP

X|j| ptS<5GF **GP14.** :+LVM VG[5]-QFMGL VY'IJICGTFGF DGMJ(7FIGS
 ; |BFSFZLGF 38SGF 5F%TFSMGF Dwl SM JrR| SM ; FY'S
 TOFJT GYLP

SMQ8S GP **4.11** G\ IGZL1F6 SZTF H6FI K[S\ HFITGF\ ; NE'Df\ jI ISTVMGL
 VY'IJICGTFG\ 'F' Dk| **0.09** 5F%T YI\ K\ H| **0.05** S1FFV| ; FY'S GYL SMQ8S GP **4.12**

G) IGZL1F6 SZTF H6FI K[S# : +LVMGL VY'IJICGTFGA\5F%TF\$MGM DwI S **1.61** K[VG[5]-QFMGL VY'IJICGTFGA\5F%TF\$MGM DwI S **1.75** KP TDGL JrR[GM TOFJT DF+ **0.14** KP VCL\ 5)-QFMGL VY'IJICTFGA\5F%TF\$MGA\ DwI S SZTF : +LVMGL VY'IJICGTF GA\5F%TF\$MGM DwI S VMKM HMJF D/[KP 5ZT# VF TOFJT ; FY\$TFGL S1FF SZTF VMKM KP T\YL X#I ptS<5GFG[I YFJT ZFBTF SCL XSFI S# : +LVM VG[5)-QFMGL VY'IJICGTFGA\5F%TF\$MGA\ DwI SM JrR[SM. H ; FY\$ TOFJT HMJF D/TM GYLP

VCL\ 5IZ6FDG\ XSI SFZ6 VF5TF SCL XSFI S# 5)-QFM VYM5FH'GGL 5#IT SZL 3ZGM VFIY\$ AMH p9FJ[K[TM : +LVM 56 3ZG\ SFD4 AF/SMGM pKZ H#L VUtI GL 5#ITVM SZ[K# T\YL H : +LVM 5MT[56 ÒJGDA\ VY'5)6" 5#IT SZTL T# T[G[, FUT\ CX[T\YL H SNFR 5)-QFM VG[: +LVMGL VY'IJICGtJ JrR[; FY\$ TOFJT HMJF GIC D?I MCM T#AGL XSP

4.2.2.3.3 jI ISTVMGL pDZ VG[T\VMGL DGMU{7FIGS ; }BFSFZLG\ 38S VY'IJICGTFP

jI ISTVMGL VY'IJICGTF 5Z T\VMGL pDZGL (**21** YL **35** JOF# **36** YL **50** JOF# **51** VG[T\YL JW] JOF" f SM. V; Z YFI K[S[SD T[HF6JF DF8['F' S; MBL äZFZ GLR[NXFJ[, X#I ptS<5GFG[RSF; 6L SZJFDA\ VFJL CTLP

X#I ptS<5GF **GR15**. H#L H#L pDZ 3ZEJTL jI ISTVMGL VY'IJICGTFGA\ DGMU{7FIGS ; }BFSFZLGA\ 38SGA\ 5F%TF\$MGA\ DwI SM JrR[SM. ; FY\$ TOFJT GYLP

SM8S GP **4.11** G) IGZL1F6 SZTF H6FI K[S# pDZGA\ ; NE'DF\ jI ISTVMGL VY'IJICGTFGA\ 'F' D#I **0.25** 5F%T YI\ K# H[**0.05** S1FFV[; FY\$ GYL T\YL X#I ptS<5GFG[I YFJT ZFBJFDA\ VFJ[KP SM8S GP **4.12** G) IGZL1F6 SZTF H6FI K[S# **21** YL **35** JOF" ; }MLGL pDZ 3ZEJTL jI ISTVMGL VY'IJICGTFGA\ 5F%TF\$MGM DwI S **1.70** K# **36** YL **50** JOF" ; }MLGL pDZ 3ZEJTL jI ISTVMGL VY'IJICGTFGA\ 5F%TF\$M

Dwl S **1.78** K[VG[**51** JQF" VG[T\YL J3FZ[pDZ 3ZFJTL jI ISTVMGL VY'IJICGTFGF\ 5F%TFSMGM Dwl S **1.57** Kp TDGL JrR[GM TOFJT sHY V\ VG[A\ HY V\ VG[+6 TYF HY A[VG[+6 f VG[S]D[**0.8, 0.13, VG[0.21** K\ Dwl SM JrR[GF\ TOFJTM 5ZYL HM. XSF I K[S\ HY V\ VG[HY A[DF Dwl SM JrR[GM TOFJT GICJT K\ HI FZ[HY +6 DF V[8, [S[**36** YL **50** JQF" VG[**51 &** T\YL J3] JQF" 3ZFJTL jI ISTVMGF\ VY'IJICGTFGF\ Dwl SM JrR[**0.21** H\, M TOFJT HMF D/[Kp 5ZT\ pDZGF +6[HYMGF\ Dwl SMG\ 'F' D\I **0.25** 5F%T YI\ K\ H[**0.05** S1FFV[; FY'S GYL4 T\YL 5IZ6FDM 5F%T YI\ K\ H[**0.05** S1FFV[; FY'S GYL4 T\YL 5IZ6FDM p5ZYL SCL XSF I

S\ H\NL H\NL pDZ WZFJTL jI ISTVMGF DGMU{7FIGS ;]BFSFZLG\ 38S VY'IJICGTFGF\ 5F%TFSMGF\ Dwl SM JrR[SM. ; FY'S TOFJT GYLP

4.2.2.3.4 jI ISTGM 5\SFZ4 HFIT VG[pDZGL VFTZIS| FGL DGMU{7FIGS ;]BFSFZLG\ 38S VY'IJICGTF 5Z V; ZP

jI ISTGM 5\SFZ T\VMGL HFIT VG[H\NL v H\NL pDZGL +6 S1FFVM VF+6[:JT+ 5IZJtI MGL D\I V; Z p5ZFT +6[5IZJtI MGL 5Z:5ZGL VFTZIS| FGL T\VMGL VY'IJICTGF 5Z S\JL V; Z K[T[HF6JF DF8['F' S; MBL äZF GLR[NXF"J, X\I ptS<5GFGL RSF; 6L SZJFDF\ VFJL CTLP

X\I ptS<5GF **GP16.** jI ISTGM 5\SFZ4 HFIT VG[pDZGL VFTZIS| FGL ; FY'S V; Z T\VMGL VY'IJICGTFGF DGMU{7FIGS ;]BFSFZLGF 38S 5Z YTL GYLP

IJIJ3 :TZGL VFTZIS| FtDS V; ZM HF6JF DF8[I+DFUL' IJRZ6 5yYSZ6 SZTF jI ISTGM 5\SFZ VG[pDZ (**AxC**), HFIT VG[pDZ (**BxC**), jI ISTGM 5\SFZ4 HFIT VG[pDZ (**AxBxC**) V[D S], RFZ VFTZIS| FGL VY'IJICGTF 5Z V; Z HF6JF DF8['F' D\I M XMWJFDF\ VFJ I F CTLP

SMD8S GP **4.11** G\IGZL1F6 SZTF H6FI K[S\ jI ISTGM 5\SFZ VG[HFIT (**AxB**)
GL VFTZIS|I FtDS V; ZG\ 'F' D\kI **0.25** 5F%T YI \K\ H[**0.05** S1FFV[; FY'S GYLP
T\YL SCL XSFI S\ jI ISTGM 5\SFZ VG[HFITGL VFTZIS|I FtDS V; Z T\VMGL
VYIJICGTF 5Z YTL GYLP

jI ISTGM 5\SFZ VG[T\VMGL pDZ (**AxC**) GL VFTZIS|I FtDS V; ZG\ 'F'
D\kI **0.25** 5F%T YI \K\ T[56 **0.05** S1FFV[; FY'S GYLP T\YL SCL XSFI S\ jI ISTGM
5\SFZ VG[T\VMGL pDZGL VFTZIS|I FtDS V; Z VYIJICGTF 5Z HMUF D/TL GYLP

jI ISTVMGL HFIT VG[pDZ (**BxC**) GL VFTZIS|I FtDS V; ZG\ 'F' D\kI **0.28**
5F%T YI \K\ T[56 **0.05** S1FFV[; FY'S GYLP T\YL SCL XSFI S\ jI ISTVMGL
HFIT VG[T\VMGL pDZGL VFTZIS|I FtDS V; Z T\VMGL VYIJICGTF 5Z YTL GYLP

jI ISTGM 5\SFZ4 HFIT VG[pDZ (**AxBxC**) GL VFTZIS|I FG\ 'F' D\kI **0.70**
5F%T YI \K\ T[56 **0.05** S1FFV[; FY'S GYL4 T\YL X\jI ptS<5GFG[I YFJT ZFBTF SCL
XSFI S\ jI ISTGM 5\SFZ4 HFIT VG[pDZGL VFTZIS|I FGL; FY'S V; Z VYIJICGTFGF
DGMJ{7FIGS; }BFSFZLGF\38S 5Z YTL GYLP

4.2.2.4 jI ISTGM 5\SFZ4 HFIT VG[pDZGF; NE'DF\ DGMJ{7FIGS; }BFSFZLG\
38S XFZLIZS OIZI FNP

2x2x3 O\S8MZI, I MHGF V\TU'T jI ISTVMGM 5\SFZ4 HFIT VG[pDZ VF
+6| :JT+ 5IZJtI MGL cXFZLIZS OIZI Fnc 5Z D\pI VG[VFTZIS|I FtDS V; ZM YFI
K[S[S\ T[HF6JF DF8[I+DFUL'I IJRZ6 5yYSZ6 5wWIT äZF 4 X\jI ptS<5GF
(S\ GP **17** YL **20**) RSF; 6L DF8['F' D\kI M XMWJFDF\ VFjI F CTFP VF; NE'DF\ D/,

IJIJ3 VFSOFSLI IJUTM SM8S GP 4.13, 4.14 VG{4.15 D\ZH}SZJFDA\VFJL KP

SM8S GP 4.13

O[S8MZI , I MHGF V\TU" IJIJW H\YMG L DGMJ{7FIGS ; }BFSFZLG\ 38S
 XFZLIZS OIZI FNGF\ 5F%TFSMGF DwI SM TYF 5|DF6 IJR, GM
2x2x3 O[S8MZI , I MHGF (N=480)

	A₁ I MUS jI ISTVM n = 240		A₂ IAGI MUS jI ISTVM n = 240	
	B₁ :+LVM	B₂ 5}-QFM	B₁ :+LVM	B₂ 5}-QFM
pDZ	120	120	120	120
C₁ 21 YL 35 JQF"	n=40	n=40	n=40	n=40
	M=1.65	M=1.65	M=1.35	M=1.45
	S.D.=0.57	S.D.=0.53	S.D.=0.65	S.D.=0.67
C₂	n=40	n=40	n=40	n=40
	M=1.68	M=1.73	M=1.38	M=1.38

	S.D.=0.47	S.D.=0.90	S.D.=0.80	S.D.=0.70
C₃ 51 & T[YL JW] JQF"	n=40	n=40	n=40	n=40
	M=1.58	M=1.62	M=1.37	M=1.3
	S.D.=0.49	S.D.=0.59	S.D.=0.69	S.D.=1.09

SM8S GP 4.14

jI ISTGM 5SFZ4 HFIT VG[pDZGF ; NE'DF\ DGMJ{7FIGS ; }BFSFZLG\ 38S
XFZLIZS OIZI FN VUJGF **ANOVA** GM ; FZFX
2x2x3 O}8MZI , I MHGF (N=480)

Variable	df	S.S.	MASSQ	F	Sig. level
A sjI ISTGM 5SFZf	1	8.851	8.851	23.38	0.01
B sHFITf	1	7.124	7.124	0.19	NS
C spDZf	1	8.061	8.061	0.00	NS
AxB	1	9.276	9.276	0.06	NS
AxC	1	2.612	2.612	0.07	NS
BxC	1	0.176	0.176	0.47	NS
AxBxC	1	0.143	0.143	0.38	NS
W.S.S.	471	0.379	0.379		
Total	478				

SM8S GP 4.15

H}YNGI DGMJ{7FIGS ; }BFSFZLG\ 38S XFZLIZS OIZI FNGF\ Dwi SM TYF
Dwi SM JrR{GF\ TOFJT

:JT+ 5IZJtIM	S1FFVM	; bIF	Dwl S	Dwl SM JrRGM TOFJT
jI ISTGM5ŞFZ (A)	A ₁ IMUS jI ISTVM	240	1.65	0.27
	A ₂ IAGI MUS jI ISTVM	240	1.38	
HFIT (B)	B ₁ : +LVM	240	1.50	0.03
	B ₂ 5]-QFM	240	1.53	
pDZ (C)	C ₁ 21 YL 35 JQF"	160	1.53	1/2 = 0.01
	C ₂ 36 YL 50 JQF"	160	1.54	1/3 = 0.05
	C ₃ 51 & T\YL JW\JQF"	160	1.48	2/3 = 0.06

4.2.2.4.1 jI ISTGM 5ŞFZ VG[T\VMGL DGMU{7FIGS ; }BFSFZLG}38S XFZLIZS OIZI FN

VCL\XFZLIZS OIZI FN V[jI ISTDFZC[, XFZLIZS ZMU VG[DFGI; S AMH S[TGFIJİŞT 5IZI:YITGM p<, }B SZ[KP VIC\jI ISTVMGF 5ŞFZGL sI MUS jI ISTVM VG[IAGI MUS jI ISTVMF V; Z T\VMGL XFZLIZS OIZI FN 5Z YFI K[S[ŞD T[HF6JFGF VFXI YL VFSOFXF: +LI 'F' S; NBL äZFZ GLR[NXF"J[, X}I ptS<5GFGL RSF; 6L SZJFDA VFJL CTLP

X}I ptS<5GF GP**17**. IMUS VG[IAGI MUS jI ISTVMGL XFZLIZS OIZI FNGF DGMU{7FIGS ; }BFSFZLGF 38SGF 5\F%TFSMGF Dwl SM JrR[SM. ; FY'S TOFJT GYLP

SM8S GP **4.14** G\IGZL1F6 SZTF H6FI K[S} jI ISTVMGF 5ŞFZGF; NE'DFA T\VMGL XFZLIZS OIZI FN DF8[G] 'F' D}I **23.38** 5\F%T YI }K} H[**0.01** S1FFV[; FY'S K} T\YL X}I ptS<5GF GM VI:JSFZ SZJFDA VFJ[KP SM8S GP **4.15** G\IGZL1F6 SZTF HF6JF D/[K[S} IMUS jI ISTVMGL XFZLIZS OIZI FNGF 5\F%TFSMGM Dwl S **1.65** K} HI FZ[IAGI MUS jI ISTVMGL XFZLIZS OIZI FNGF 5\F%TFSMGM Dwl S **1.38** KP A}G}GF Dwl SM JrRGM TOFJT **0.27** HMJF D/[KP **Psychological Well-being Scale** GF

DgI M, DF VF5[, VY'38G 5DF6[XFZLIZS OIZI FNGA 38SDF\ HD 5F%TFSDFAJWFZ[
TID jI ISTDF\XFZLIZS OIZI FNG\ 5DF6 VMK\K[TID VY'38G SZJFDF\VFJ[KP VIC\
I MUS jI ISTVMGL XFZLIZS OIZI FNGA\5F%TFSMGM DwI S IAGI MUS jI ISTVMGL
XFZLIZS OIZI FNGA\ 5F%TFSMGF DwI S SZTF J3] HMJF D/[KP DwI SM JrRGM TOFJT
:5Q856[; RJ[K[S\ I MUS jI ISTVM SZTF IAGI MUS jI ISTVMDF\ ; FY'S ZLT[J3]
XFZLIZS OIZI FN HMJF D/[KP

VCL\ 5IZ6FDG\ XSI SFZ6 VF5TF SCL XSFI S\ I MUS jI ISTVM IGI IDT
ZLT[I MJF; GM S; ZTM 5F6FI FD JUZ[SZTL CMJFYL T\VMG\ XFZLIZS :JF:yI H/JFI
ZC[T] CX[T\VMDF\XFZLIZS OIZI FNG\ 5DF6 VMK\HMJF D?I \CX[TU] AGL XSP p5ZFT
I MUS jI ISTVM VFCFZvIJCFZGF IGI DMG\ 5F, G SZTL CMJFYL T[56 TG\ :JF:yI
HF/JJFDF\ DNN~5 AGL XSP

4.2.2.4.2 jI ISTVMGL HFIT VG[T\VMGL DGMJ{7FIGS ; }BFSFZLG\38S
XFZLIZS OIZI FNP

jI ISTVMGL HFITGL s: +LVM S[5]-QFM f V; Z XFZLIZS OIZI FN 5Z YFI K[S]
SD T[HF6JFGF VFXI YL 'F' S; MBL äZF GLR[NXF"J], XjI ptS<5GFGL RSF; 6L
SZJFDF\VFJL CTLP

XjI ptS<5GF **GP18.** :+LVM VG[5]-QFMGL XFZLIZS OIZI FNGA\DGMJ{7FIGS
; }BFSFZLG\ 38SGF 5F%TFSMGF DwI SM JrR[SM. ; FY'S
TOFJT GYLP

SMQ8S GP **4.14** G\ IGZL1F6 SZTF H6FI K[S\ HFITGA\ ; NE'DF\jI ISTVMGL
XFZLIZS OIZI FNG\ 'F' D\I **0.19** 5F%T YI \ K\ H[**0.05** S1FFV[; FY'S GYL4 SMQ8S
GP **4.15** G\IGZL1F6 SZTF H6FI K[S\ :+LVMGL XFZLIZS OIZI FNGA\ 5F%TFSMGM DwI S
1.50 K[VG[5]-QFMGL XFZLIZS OIZI FNGA\ 5F%TFSMGM DwI S **1.53** KP TDGL JrR[GM
TOFJT DF+ **0.03** HMJF D/[KP H[5DF6DF\ 36M VMKM KP 8)SDF\ 5IZ6FDM 5ZYL SCL
XSFI S\ :+LVM VG[5]-QFMGL XFZLIZS OIZI FNGA\ 5F%TFSMGF DwI SM JrR[SM.

; FY'S TOFJT GYLP TYL XgI ptS<5GFGL I YFJT ZFBJFDA VFJ[KP

VC\5IZ6FDG\ XSI SFZ6 VF5TF SCL XSFI S# :+LVMVG[5]-QFMGF
XFZLIZS AWFZ6DA HqJI ZLT[TOFJT CMUF KTF\ VFW]GS ÖJGX{ L4 VF; 5F; G]
JFTEJZ64 BMZFS JUZ[GL V; Z :+LVMVG[5]-QFM5Z ; ZBL H 50TL CMI Tj]AGL
XSP 5KL E, [:+L VG[5]-QFMGL IADFZLGF 5SFZDA TOFJT HMUF D/[56 XFZLIZS
OIZI FN AqGDA HMUF D/TL CMI Tj]CM. XSP

4.2.2.4.3 jI ISTVMGL pDZ VG[Tj]MGL XFZLIZS OIZI FN

jI ISTVMGL XFZLIZS OIZI FN 5Z Tj]MGL pDZGL (21 YL 35 JQF" 36 YL
50 JQF" 51 & TYL JW] JQF" f SM. V; Z HMUF D/[K[S]SD T[HF6JF DF8['F' S; MBL
äZF GLR[NXF"J], XgI ptS<5GFGL RSF; 6L SZJFDA VFJL CTLP

XgI ptS<5GF GP19. HJNLvHJNL pDZ 3ZEJTL jI ISTVMGL XFZLIZS OIZI FNGA
DGMJ{7FIGS ; jBFSZLGF 38SGF 5F%TF'SMGF DwI SM JrR[
SM. ; FY'S TOFJT GYLP

SMQ8S GP 4.14 G] IGZL1F6 SZTF H6FI K[S# pDZGF; NE'DF]jI ISTVMGL
XFZLIZS OIZI FNG] 'F' DkI 0.00 5F%T YI] K# H[0.05 S1FFV[; FY'S GYLP TYL XgI
ptS<5GFGL I YFJT ZFBJFDA VFJ[KP SMQ8S GP 4.15 G] IGZL1F6 SZTF H6FI K[S#
21 YL 35 JQF" ; jMLGL pDZ 3ZEJTL jI ISTVMGL XFZLIZS OIZI FNGA 5F%TF'SMG M DwI S
1.53 K[4 36 YL 50 JQF" ; jMLGL pDZ 3ZEJTL jI ISTVMGL XFZLIZS OIZI FNGA
5F%TF'SMG M DwI S 1.54 K[VG[51 JQF" VG[TYL J3FZ[pDZ 3ZEJTF jI ISTVMGL
XFZLIZS OIZI FNGA 5F%TF'SMG M DwI S 1.48 KP Tj]DGL JrR[GM TOFJT sHY V]S VG[
A# HY V]S VG[+6 TYF HY A[VG[+6 f VG]SD[0.01, 0.05, VG[0.06 HMUF D/[
KP DwI SM JrR[GF TOFJT 5ZYL HM. XSFI K[S# jI ISTGL pDZGL V; Z Tj]MGL

XFZLIZS OIZI FN 5Z HMUF D/TL GYLP

4.2.2.4.4 jI ISTGM 5ŞFZ4 HFIT VG[pDZGL VFTZIS|I FGL ; FDFIHS
VF3FZGF\ DGMU{7FIGS ; }BFSFZLGF 38S 5Z V; ZP

jI ISTGM 5ŞFZ4 T\MGL HFIT VG[H]NLvH]NL pDZGL +6 S1FFVM\VF
+6|I :JT\+ 5IZJt|MGL D}I V; Z p5ZAT +6|I 5IZJt|MGL 5Z:5ZGL
VFTZIS|I FGL T\MGL XFZLIZS OIZI FN 5Z S}UL V; Z K[T]HF6JF DF8['F' S; MBL äZF
GLR[NXF}J, X}I ptS<5GFGL RSF; 6L SZJFDF\VFJL CTLP

X}I ptS<5GF GP **20.** jI ISTGM 5ŞFZ4 HFIT VG[pDZGL VFTZIS|I FGL ; FY'S
V; Z T\MGL XFZLIZS OIZI FN\GF DGMU{7FIGS ; }BFSFZL
GF 38S 5Z YTL GYLP

IJIJ3 :TZGL VFTZIS|I FtDS V; ZM HF6JF DF8[I+DFUL'I IJRZ6 5yYSZ6
SZTF jI ISTGM 5ŞFZ VG[HFIT (**AxB**), jI ISTGM 5ŞFZ VG[pDZ (**AxC**), HFIT VG[
pDZ (**BxC**) jI ISTGM 5ŞFZ4 HFIT VG[pDZ (**AxBxC**) V[D S], RFZ VFTZIS|I FGL
XFZLIZS OIZI FN 5Z V; Z HF6JF DF8['F' D}I M XMMJFDF\VFJ I F CTFP

SMD8S GP **4.14** G\MGZL1F6 SZTF H6FI K[S} jI ISTGM 5ŞFZ VG[HFIT (**AxB**)
GL VFTZIS|I FtDS V; ZG\ 'F' D}I **0.06** 5F%T YI \K} H[**0.05** S1FFV[; FY'S GYLP
T\YL SCL XSFI S} jI ISTGM 5ŞFZ VG[HFITGL VFTZIS|I FtDS V; Z T\MGL XFZLIZS
OIZI FN 5Z HMUF D/TL GYLP

jI ISTGM 5ŞFZ VG[T\MGL pDZ (**AxC**) GL VFTZIS|I FtDS V; ZG\ 'F'
D}I **0.07** 5F%T YI \K} VF D}I 56 **0.05** S1FFV[; FY'S GYLP T\YL SCL XSFI S}
jI ISTGM VG[T\MGL pDZGL VFTZIS|I FtDS V; Z T\MGL XFZLIZS OIZI FN 5Z HMUF
D/TL GYLP

jI ISTVMGL HFIT VG[pDZ (**BxC**) GL VFTZIS|I FG\ 'F' D}I **0.47** 5F%T YI \

K₁ T[56 **0.05** S1FFV[; FY'S GYLP T₁YL SCL XSFI S₁ jI ISTVMGL HFIT VG[T₁VMGL
 pDZGL VFTZIS₁ FtDS V; Z T₁VMGL DGMJ{7FIGS ; }BFSFZLGF 38S XFZLIZS OIZI FN
 5Z HMUF D/TL GYLP

jI ISTVMGM 5₁SFZ4 HFIT VG[pDZ (AxBxC) GL VFTZIS₁ FG\ 'F' D₁kI **0.38**
 5F%T YI\ K₁ T[56 **0.05** S1FFV[; FY'S GYL4 T₁YL X₁gI ptS<5GFG[I YFJT ZFBTF SCL
 XSFI S₁ jI ISTGM 5₁SFZ4 HFIT VG[pDZGL VFTZIS₁ FGL ; FY'S V; Z T₁VMGL
 cXFZLIZS OIZI FNC 5Z YTL GYLP

4.2.2.5 jI ISTGM 5₁SFZ4 HFIT VG[pDZGF ; NE'DF\ DGMJ{7FIGS ; }BFSFZLGF
 38S VftDUFZJP

2x2x3 O₁S8MZI , I MHGF V₁TU₁T jI ISTVMGM 5₁SFZ4 HFIT VG[pDZ VF +6[
 :JT+ 5IZJtI MGL cVftD UFZJc 5Z D₁gI VG[VFTZIS₁ FtDS V; ZMYFI K[S[S₁D T[
 HF6JF DF8[I+DFUL₁ IJRZ6 5yYSZ6 5wWIT äFZF 4 X₁gI ptS<5GF (S₁D GP 21 YL
 24) GL RSF; 6L DF8['F' D₁kI MXMWJFDF\ VFjIF CTFP VF ; NE'DF\ D/[IJIJ3
 VFSOFSLI IJUTM SM8S GP **4.16, 4.17** VG[**4.18** DF\ZH)SZJFDF\ VFJL K₁P

SM8S GP 4.16

O₁S8MZI , I MHGF V₁TU₁T IJIJW H₁YMG L DGMJ{7FIGS ; }BFSFZLGF 38S
 VftDUFZJGF 5F%TF₁SMGF DwI SM TYF 5₁D₁F6 IJR, GP
2x2x3 O₁S8MZI , I MHGF (N=480)

	A ₁ I MUS jI ISTVM n = 240		A ₂ IAGI MUS jI ISTVM n = 240	
	B ₁	B ₂	B ₁	B ₂
pDZ	:+LVM	5]-QFM	:+LVM	5]-QFM
	120	120	120	120
	n=40	n=40	n=40	n=40

	M=1.55	M=1.78	M=1.35	M=1.48
	S.D.=0.50	S.D.=0.47	S.D.=0.69	S.D.=0.63
C₂ 36 YL 50 JQF"	n=40	n=40	n=40	n=40
	M=1.70	M=1.55	M=1.26	M=1.63
	S.D.=0.58	S.D.=0.63	S.D.=0.70	S.D.=0.7
C₃ 51 & T[YL JW] JQF"	n=40	n=40	n=40	n=40
	M=1.63	M=1.58	M=1.43	M=1.30
	S.D.=0.58	S.D.=0.63	S.D.=0.63	S.D.=0.68

SM8S GP 4.17

j I ISTGM 5\$FZ4 HFIT VG[pDZGF ; NE'DF\ DGMJ{7FIGS ; }BFSFZLG\ 38S
VftDUFZJ VUGF ANOVA GM ; FZFX
2x2x3 0\$8MZI , I MHGF (N=480)

Variable	df	S.S.	MASSQ	F	Sig. level
A sj I ISTGM 5\$FZf	1	4.401	4.401	11.20	0.01
B sHFITf	1	0.759	0.759	1.93	NS
C spDZf	1	0.176	0.176	0.45	NS
AxB	1	1.426	1.426	36.29	0.05
AxC	1	2.709	2.709	6.96	0.01
BxC	1	0.234	0.234	0.60	NS
AxBxC	1	0.301	0.301	0.77	NS
W.S.S.	472	185.488	0.393		
Total	479	130.000			

SM8S GP 4.18

HJYI GL DGMJ{7FIGS ; }BFSFZLG\ 38S VftDUFZJGF\ Dwi SM TYF
Dwi SM JrR\GF\ TOfJT

:JT+ 5IZJtIM	S1FFVM	; bIF	Dwl S	Dwl SM JrRGM TOFJT
jI ISTGM 5SFZ (A)	A ₁ IMUS jI ISTVM	240	1.63	0.22
	A ₂ IAGIMUS jI ISTVM	240	1.41	
HFIT (B)	B ₁ :+LVM	240	1.49	0.06
	B ₂ 5]-QFM	240	1.55	
pDZ (C)	C ₁ 21 YL 35 JQF"	160	1.54	1/2 = 0
	C ₂ 36 YL 50 JQF"	160	1.54	1/3 = 0.05
	C ₃ 51 & T YL JW JQF"	160	1.49	2/3 = 0.05

4.2.2.5.1 jI ISTGM 5SFZ VG| T|VMGL DGMU{7FIGS ; }BFSFZLG| 38S VFtDUFZJP

VCL\ VFtDUFZJV| jI ISTGM 5MTFGM:JvVIE5fI VG| VgI jI ISTVMGL T|, GFDA jI ISTGL 5MTFGL SFI " SZJF DF8|GL 1FDTFG| ; }RG SZ| KP NZS jI ISTGL IJRFZX|, LDA TOFJT HMF D/[KP Sß, FS , MSM 5MTFGL HFT 5tI |DFGGL GHZ| HMTF CMI K| TM Sß, FS , MSM , W|TFU|YL VG|EJTF CMI KPH|VM VgI SZTF 5MT|pTZTF K| T|J| DFG| KP HGf DF8| VGß 5IZA/M HJFANFZ CMI KP VIC\ VFtDUFZJ 5Z jI ISTGF 5SFZMGL sIMUS VG| IAGIMUSf V; Z YFI K| S| SD m T| HF6JFGA VFXI YL VFSOFXF: +LI 'F' S; MBL äZF GLR| NXF"J|, Xg| ptS<5GFGL RSF; 6L SZJFDA VEFJL CTLP

Xg| ptS<5GF GP **21.** IMUS VG| IAGIMUS jI ISTVMGF VFtDUFZJGF DGMU{7FIGS ; }BFSFZLGF 38SGF 5F%TFFSMGF DwI SM JrR| SM. ; FYS TOFJT GYLP

SMQ8S GP **4.17** G| IGZL1F6 SZTF H6FI K| S| jI ISTVMGF 5SFZGF ; NE'DA T|VMGF VFtDUFZJGF 5F%TFFSM DF8|G| 'F' D|I **11.20** 5F%T YI |K| H| **0.01** S1FFV| ; FYS K| T|YL Xg| ptS<5GF GM VI: JSFZ SZJFDA VEFJ| KP SMQ8S GP **4.18** G| IGZL1F6

SZTF HF6JF D/[K[S# I MUS jI ISTVMGF VftDUFZJGF 5F%TF SMGM Dwl S **1.63** K#
HI FZ[IAGI MUS jI ISTVMGF VftDUFZJGF 5F%TF SMGM Dwl S **1.41** KP AgG[GF Dwl SM
JrR[GM TOFJT **0.22** HMJF D/[KP Dwl SM JrR[GM TOFJT :50856[; R]K[S# I MUS
jI ISTVMDF IAGI MUS jI ISTVM SZTF VftDUFZJG\ 5|DF6 ; FY'S ZLT[JW]HMJF
D/[KP

VCL\5IZ6FDG\ XSI SFZ6 VF5TF SCL XSFI S# IMU SZJFYL jI ISTGL
ÒJGX[L **Positive** AGTL CX# H[jI IST 5MTFGL TZO DFGGL GHZ[HMTM SZTM CX#
; FDFgI ZLT[, 3]TFU\YL VG]EJTF jI ISTDF IJRFZM H **Negative** CMI KP H\YL jI IST
VftDUFZJ VG]EJTL GYLP V\] AGL XS[S# IMUGL IJ]W 5|I]ISTVMGM IGI IDT
p5IMU SZJFYL jI ISTGL IJRFZ X]wW YTL CMI VG[5MT[; FDFgI jI IST SZTF ; FY'S
5\]IT SZL ZCIM K[T\]M RFZ jI ISTG[VftDUFZJ , [TM SZL XS[T\YL H SNFR
IAGI MUS jI ISTVM SZTF I MUS jI ISTVMDF VftDUFZJG\ 5|DF6 JW]HMJF D?I\]
CMI T\]AGL XSP

4.2.2.5.2 jI ISTVMGL HFIT VG[T]MDF VftDUFZJP

jI ISTVMGL HFITGL s: +LVM S[5]-QFM f V; Z VftDUFZJ 5Z YFI K[S[S]D m
T[HF6JFGF VFXI YL 'F' S; MBL äFZF GLR[NXF"J], X]I ptS<5GFGL RSF; 6L SZJDF
VFJL CTLP

X]I ptS<5GF GR **22.** :+LVM VG[5]-QFMGF VftDUFZJGF DGMU{7FIGS
;]BFSFZLGF 38SGF 5F%TF SMGF Dwl SM JrR[SM.
; FY'S TOFJT GYLP

SMQ8S GP **4.17** G\ IGZL1F6 SZTF H6FI K[S# HFITGF; NE'DF]I ISTVMGF
VftDUFZJG\ 'F' D]I **1.93** 5F%T YI\ K# H[**0.05** S1FFV[; FY'S GYL4 SMQ8S GP **4.18**
G\ IGZL1F6 SZTF H6FI K[S# :+LVMGF VftDUFZJGF 5F%TF SMGM Dwl S **1.49** K[VG[
5]-QFMGF VftDUFZJGF 5F%TF SMGM Dwl S **1.55** KP T]DGL JrR[GM TOFJT **0.06** HMJF
D/[KP H[36M VMKM KP 8]SDF 5IZ6FDM 5ZYL SCL XSFI S# :+LVM VG[5]-QFMGF

VftDUFZJGF\ 5F%TF\$MGF DwI SM JrR[SM. ; FY\$ TOFJT HMF D/TM GYL4 VCL\TYL
X)I ptS<5GFG[I YFJT Y ZFBJFDF\ VFJ[KP

VIC\5IZ6FDG\ XSI SFZ6 VF5TF SCL XSF I S# JTDFG ; DI DAI\X1F6G\
5DF6 JWTF :+L DF+ U'IC6L G ZC[TF jI J; FI S 56 AGL KP jI J; FI DA56
5Z5ZFUT ZLT[RF<I F VFJTF :+6 jI J; FI HUF S[18RLU4 GI; U JUZ[SZTF 5]-QFM
H[jI J; FI SZ[K[TUF HDS# DFS[8LU4 8S YGM, M04 :5M8"; JUZ[1F+[:+LVM
5P\XF , FUL KP VF AWF 5IZA/M :+LVMGF VftDUFZJDF\JWFZM SZTF CMI T\A AGL
XSP TYL H SNFR :+LVM VG[5]-QFMGF VftDUFZJDF\ ; FY\$ TOFJT HMF G D?I M
CMI T\A CMI XSP

4.2.2.5.3 jI ISTVMGL pDZ VG[T\VMGL DGMJ{7FIGS ; }BFSFZLG\ 38S
VftD UFZJP

jI ISTGF VftDUFZJ 5Z T\VMGL pDZ (21 YL 35 JQF" 36 YL 50 JQF" 51 &
TYL JW) JQF" SM. V; Z SZ[K[S[SD T[HF6JF DF8['F' S; MBL äZF GLR[NXF"J,
X)I ptS<5GFG\ RSF; 6L SZJFDF\ VFJL CTLP

X)I ptS<5GF GP **23.** HJNLvHJNL pDZ 3ZFJTL jI ISTVMGF VftDUFZJGF\
DGMJ{7FIGS ; }BFSFZLGF 38SGF 5F%TF\$MGF DwI SM JrR[
SM. ; FY\$ TOFJT GYLP

SM8S GP **4.17** G\IGZL1F6 SZTF H6FI K[S# pDZGF\ ; NE'DF\jI ISTVMGF\
VftDUFZJG\ 'F' D}I **0.45** 5F%T YI\ K# H[**0.05** S1FFV[; FY\$ GYLP TYL X)I
ptS<5GFG[I YFJT ZFBJFDF\ VFJ[KP SM8S GP **4.18** G\IGZL1F6 SZTF HMF D/[K[S#
21 YL **35** JQF" ; }MLGL pDZ 3ZFJTL jI ISTVMGF VftDUFZJGF\ 5F%TF\$MGMDwI S **1.54**
K# **36** YL **50** JQF" ; }MLGL pDZ 3ZFJTF jI ISTVMGF VftDUFZJGF\ 5F%TF\$MGMDwI S
1.54 K[VG[**51** JQF" VG[TYL J3FZ[pDZ 3ZFJTF jI ISTVMGF VftDUFZJGF\
5F%TF\$MGMDwI S **1.49** KP T\DGL JrR[GM TOFJT sHY V\$ VG[A# HY V\$ VG[+6
TYF HY A[VG[+6f VG\$D[**0., 05,** **0.05,** HMF D/[KP DwI SM JrR[GF\

TOFJT 5ZYL HM. XSFI K[S] jI ISTGL pDZGL ; FYS V; Z T[M]GF VftDUFZJ HMJF D/TL GYLP

4.2.2.5.4 jI ISTGM 5]SFZ4 HFIT VG[pDZGL VFTZIS|I FGL DGMJ{7FIGS ;]BFSFZLG\38S VftDUFZJ 5Z V; Z

jI ISTGM 5]SFZ T[M]GL HFIT VG[H]NLvH]NL pDZGL +6 S1FFVM VF +6| :JT+ 5IZJtI MGL D]I V; Z p5ZFT +6| 5IZJtI MGL 5Z:5ZGL VFTZIS|I FGL T[M]GF VftDUFZJ 5Z S]L V; Z YFI K[T] HF6JF DF8['F' S; M]L äFZF GLR[NXF"J, X]I ptS<5GFGL RSF; 6L SZJFDF VEFJL CTLP

X]I ptS<5GF GP **24.** jI ISTGM 5]SFZ4 HFIT VG[pDZGL VFTZIS|I FGL ; FYS V; Z T[M]GF VftDUFZJ GF DGMJ{7FIGS ;]BFSFZLGF 38S 5Z YTL GYLP

IJIJ3 :TZGL VFTZIS|I ftds V; ZM HF6JF DF8[I+DFUL" IJRZ6 5yYSZ6 SZTF jI ISTGM 5]SFZ VG[HFIT (**AxB**), jI ISTGM 5]SFZ VG[pDZ (**AxC**), HFIT VG[pDZ (**BxC**), jI ISTGM 5]SFZ4 HFIT VG[pDZ (**AxBxC**) V]D S], RFZ VFTZIS|I FGL VftDUFZJ 5Z V; Z HF6JF DF8['F' D]I M XMWJFDF VEFJ I F CTFP

SM8S GP **4.17** G]IGZL1F6 SZTF H6FI K[S] jI ISTGM 5]SFZ VG[HFIT (**AxB**) GL VFTZIS|I FG\ 'F' D]I **3.629** 5F%T YI\ K] H[**0.05** S1FFV[; FYS K[T]YL SCL XSFI S] jI ISTGM 5]SFZ VG[HFITGL VFTZIS|I ftds V; Z T[M]GF VftDUFZJ 5Z HMJF D/[KP

jI ISTGM 5]SFZ VG[T[M]GL HFITGL VFTZIS|I FG\ VY"38G DF8[IJIJ3 H]M]GF DwI SM JrR]GF TOFJTGL ; FYSTF XMWJF DF8[**L.S.D.** SM8S XMWJFDF VEFJ I] CTFP T]G\ 5IZ6FD SM8S GP **4.19** DFANXF"JJFDF VEFJ I] KP

SM8S GP 4.19

jI ISTGM 5]SFZ VG[T[M]GL HFITGL VFTZIS|I FG\ **L.S.C.** SM8S

SR. NO.	Pairs	Mean difference	Sig.
1	A ₁ B ₁ vs A ₁ B ₂	0.01	NS
2	A ₁ B ₁ vs A ₂ B ₁	0.28	0.01
3	A ₁ B ₁ vs A ₂ B ₂	0.16	0.05
4	A ₁ B ₂ vs A ₂ B ₁	0.29	0.01
5	A ₁ B ₂ vs A ₂ B ₂	0.17	0.05
6	A ₂ B ₁ vs A ₂ B ₂	0.12	NS

SMQ8S GP 4.19 G\ IGZL1F6 SZTF H6FI K[S\ I MUS : +LVMDFAIAGI MUS : +LVM SZTF JW] VftDUFZJ HMF D/[KP IAGI MUS 5]-QFM VG[I MUS : +LVMGF VftDUFZJGF DwI SM JrR[0.28 H\, M TOFJT HMF D/[KP VIC\ IAGI MUS 5]-QFM SZTF I MUS : +LVMDFA JWfZ[VftDUFZJ HMF D/[KP I MUS 5]-QMFDA IAGI MUS : +LVM SZTF JWfZ[VftDUFZJ HMF D/[KP T[AgG[JrR[GM TOFJT 0.29 HMF D/[KP I MUS 5]-QMFDA IAGI MUS 5]-QFM SZTF ; FY'S ZLT[JW] VftDUFZJ HMF D/[KP TDGL JrR[0.17 TOFJT HMF D/[KP H[0.05 S1FFV[; FY'S KP VFD jI ISTGM 5\SFZ VG[HFITGF VFTZIS\I FGA ; NE'DAT[VMGFA VftDUFZJGF DwI SMGL ; FY'STFGL RSF; 6L L.S.D. afZF SZTF SMQ8S GP 4.19 DfAHMTF H6FI K[S\ DMBF EFUGL HMDLVM JrR[GM TOFJT 0.05 VG[0.01 S1FFV[; FY'STF 3ZfJ[K\ T\YL SCL XSFI S\ jI ISTGM 5\SFZ VG[HFITGL VFTZIS\I ftdS V; Z T[VMGFA VftDUFZJ 5Z YTL HMF D/[KP

jI ISTGM 5\SFZ VG[T[VMGL pDZ (AxC) GL VFTZIS\I ftdS V; ZG\ 'F' D\kI 6.90 5F%T YI \ KP H[0.05 S1FFV[; FY'S KP jI ISTGM 5\SFZ VG[pDZGL VFTZIS\I FGF VYW8G DF8[IJfJW H\YMGFA DwI SMGL ; FY'STF XMWJF DF8[L.S.D. XMWJFDA VFjI \ CTP TG\ 5IZ6FGD SMQ8S GP 4.20 DfAZH]SZJFDA VFjI \ KP

SMQ8S GP 4.20

jI ISTGM 5\SFZ VG[T[VMGL pDZGL VFTZIS\I FG\ L.S.D. SMQ8S

SR. NO.	Pairs	Mean difference	Sig.
1	A ₁ C ₁ vs A ₁ C ₂	0.04	NS
2	A ₁ C ₁ vs A ₂ C ₁	0.25	0.01

3	A₁ C₁ vs A₁ C₃	0.06	NS
4	A₁ C₁ vs A₂ C₂	0.22	0.01
5	A₁ C₃ vs A₂ C₃	0.24	0.01
6	A₁ C₂ vs A₂ C₁	0.21	0.01
7	A₁ C₂ vs A₁ C₃	0.02	NS
8	A₁ C₂ vs A₂ C₂	0.18	0.05
9	A₂ C₁ vs A₂ C₂	0.03	NS

0.05 = 0.16

0.01 = 0.21

NS = Not Significant

ji ISTGM 5ŞFZ VG[pDZGL VFTZIS|l FGF ; NE'DFVftDUFZJGF DwI SMGL ; FY'STFGLRSF; 6L **L.S.D.** äZF SZTF SM8S GP **4.20** DF\HMTF H6FI K[Ş 21 YL 35 JOF'GL I MUS ji ISTVMDF 21 YL 35 JOF'GL IAGI MUS ji ISTVM SZTF JWfZ[VftDUFZJ HMUF D/[KŞ AgG[DwI SM JrR[**0.25** HŞ, MTOFJT HMUF D/[KŞ **51** VG[T|YL J3FZ[pDZ WZFJTL I MUS ji ISTVMGFVftDUFZJGF 5F%TFMSGM DwI S T[H pDZGL IAGI MUS ji ISTVM SZTF **0.24** HŞ, MJ3FZ[HMUF D/[KŞ **36** YL **50** JOF'GL IAGI MUS ji ISTVMGFVftDUFZJGF 5F%TFMSGM DwI S 21 YL 35 JOF'GL IAGI MUS ji ISTVMGMVftDUFZJGF 5F%TFMSGF DwI S SZTF **0.21** HŞ, MJ3FZ[HMUF D/[KŞ **36** YL **50** JOF'GL I MUS ji ISTVM **36** YL **50** JOF'GL IAGI MUS ji ISTVM SZTF J3] VftDUFZJ VGJEJ[KŞ T|YL SCL XSFI Ş ji ISTGM 5ŞFZ4 VG[T|VMGL pDZGL VFTZIS|l FtDS V; Z T|VMGF VftDUFZJ 5Z YTL HMUF D/[KŞ

ji ISTGL HFIT VG[pDZ (**BxC**) GL VFTZIS|l FtDS V; ZG\ 'F' DŞI **0.60** 5F%T YI Ş KŞ H[**0.05** S1FFV[; FY'S GYLP T|YL SCL XSFI Ş HFIT VG[pDZGL VFTZIS|l FGL V; Z VftDUFZJ 5Z HMUF D/TL GYLP

ji ISTGM 5ŞFZ4 HFIT VG[pDZ (**AxBxC**) GL VFTZIS|l FtDS V; ZG\ 'F'

DkI **0.77** 5F%T YI\ K# H[**0.05** S1FFV[; FY'S GYLP T\YL SCL XSFI S# jI ISTGM
 5\SFZ4 HFIT VG[pDZGL VFATZIS| FtDS V; Z VftDUFZJ 5Z YTL HMF D/TL GYLP
 p5ZMST RRF" 5ZYL SCL XSFI S# jI ISTGM 5\SFZ VG[HFIT TYF jI ISTGM
 5\SFZ VG[pDZGL VFATZIS| FtDS V; Z T\MGF\ VftDUFZJ 5Z YTL HMF D/[K#
 HI FZ[jI ISTGL HFIT VG[pDZ TYF jI ISTGM 5\SFZ4 HFIT VG[pDZGL VFATZIS| FtDS
 V; Z T\MGF\ VftDUFZJ 5Z HMF D/TL GYLP

4.2.2.6 jI ISTGM 5\SFZ4 HFIT VG[pDZGF ; NE'DF\ DGMJ{7FIGS ; }BFSFZLG\
 38S IJWFI S , FU6LP

2x2x3 O\SMZI , I MHGF V\TU" jI ISTGM 5\SFZ4 HFIT VG[pDZ VF +6
 :JT+ 5IZJtI MGL cIJWFI S , FU6Lc 5Z D\pI VG[VFATZIS| FtDS 5Z V; Z YFI K[S[
 S\p T[HF6JF DF8[I+DFUL" IJRZ6 5yYSZ6 5wWIT äZFZ 4 X\jI ptS<5GF (S\p GP
25 YL **28**) GL RSF; 6L DF8['F' DkI M X\WJFDF\ VFjI F CTFP VF ; NE'DF\ D/[IJIJ3
 VFSOFSLI IJUTM SM8S GP **4.21, 4.22** VG[**4.23** DF\ZH}SZJFDF\ VFJL KP

SM8S GP 4.21

O\SMZI , I MHGF V\TU" IJIJW H\Y MGL DGMJ{7FIGS ; }BFSFZLG\ 38S
 IJWFI S , FU6LGF\ 5F%TF\SMGF DwI SM TYF 5\DF6 IJR, GMP
2x2x3 O\SMZI , I MHGF (**N=480**)

	A₁ I MUS jI ISTVM n = 240		A₂ I AGI MUS jI ISTVM n = 240	
	B₁ :+LVM	B₂ 5]-QFM	B₁ :+LVM	B₂ 5]-QFM
pDZ	120	120	120	120
C₁ 21 YL 35 JQF"	n=40	n=40	n=40	n=40
	M=1.85	M=1.83	M=1.53	M=1.73
	S.D.=0.48	S.D.=0.33	S.D.=0.50	S.D.=0.45
	n=40	n=40	n=40	n=40

	M=1.9	M=1.75	M=1.55	M=1.70
	S.D.=0.3	S.D.=0.49	S.D.=0.59	S.D.=0.51
C₃ 51 & T[YL JW] JQF"	n=40	n=40	n=40	n=40
	M=1.61	M=1.75	M=1.55	M=1.68
	S.D.=0.85	S.D.=0.43	S.D.=0.63	S.D.=0.82

SM8S GP 4.22

jI ISTGM 5\$FZ4 HFIT VG[pDZGF ; NE'DF\ DGMJ{7FIGS ; }BFSFZLG\ 38S
 IJWFI S , FU6L VUJGF **ANOVA** GM ; FZFX
2x2x3 Q\$8MZI , I MHGF (**N=480**)

Variable	df	S.S.	MASSQ	F	Sig. level
A sjI ISTGM 5\$FZf	1	MASSQ	4.267	17.72	-
B sHFITf	1	4.267	6.667	0.28	0.01
C spDZf	1	6.667	1.838	0.28	NS
AxB	1	1.838	3.750	7.63	0.1
AxC	1	3.750	4.167	0.16	NS
BxC	1	4.167	0	0.17	NS
AxBxC	1	0	0.241	0	NS
W.S.S.	472				NS
Total	479				

SM8S GP 4.23

HJYML DGMJ{7FIGS ; }BFSFZLG\ 38S IJWFI S , FU6LG\ Dwl SM TYF
 Dwl SM JrR\GF\ TOFJT

:JT+ 5IZJtIM	S1FFVM	; bIF	Dwl S	Dwl SM JrRGM TOFJT
jI ISTGM 5SFZ (A)	A ₁ IMUS jI ISTVM	240	1.78	0.16
	A ₂ IAGI MUS jI ISTVM	240	1.62	
HFIT (B)	B ₁ : +LVM	240	1.67	0.07
	B ₂ 5]-QFM	240	1.74	
pDZ (C)	C ₁ 21 YL 35 JQF"	160	1.74	1/2 = 0.01
	C ₂ 36 YL 50 JQF"	160	1.73	1/3 = 0.09
	C ₃ 51 & T[YL JW]JQF"	160	1.65	2/3 = 0.08

4.2.2.6.1 jI ISTGM 5SFZ VG[T[VMGL DGMU{7FIGS ; }BFSFZLG\38S
IJWFIS , FU6LP

VCL\IJWFIS , FU6L V[jI ISTGF 5MTFGF ÖJGDAS\ S 5F%T SIFGM VFGN
VG[jI ISTV[5MT[SZ[SFI "5tI [G\ UFZJG\ ; }RG SZ[KP 5: T]T VwI I GDFjI ISTGL
IJWFIS , FU6L 5Z jI ISTGF 5SFZGL sI MUS jI ISTVM VG[IAGI MUS jI ISTVM f
V; Z YFI K[S]SD T[HF6JFG\ VFXI YL VFSOFX: +LI 'F' S; MBL äZF GLR[NXF"J,
Xgl ptS<5GFG LRSF; 6L SZJFDF\VFJL CTLP

Xgl ptS<5GF GP **25.** IMUS VG[IAGI MUS jI ISTVMGL IJWFIS , FU6LGF
DGMU{7FIGS ; }BFSFZLG\38SGF\5F%TFSMGF Dwl SM
JrR[SM. ; FYS TOFJT GYLP

SM8S GP **4.22** G\ IGZL1F6 SZTF H6FI K[S\ jI ISTGF 5SFZGF ; NE'DF
T[VMGL IJWFIS , FU6L DF8[G\ 'F' D}I **17.72** 5F%T YI \ K\ H[**0.01** S1FFV[; FYS
K\ T[YL Xgl ptS<5GFGM VI: JSFZ SZJFDF\VFJ[KP SM8S GP **4.23** G\ IGZL1F6 SZTF
H6FI K[S\ IMUS jI ISTVMGL IJWFIS , FU6LGF 5F%TFSMGM Dwl S **1.78** K\ HI FZ[
IAGI MUS jI ISTVMGL IJWFIS , FU6LGF 5F%TFSMGM Dwl S **1.62** K[T]DGL JrRGM
TOFJT **0.16** HMJF D/[KP Dwl SM JrRGM TOFJT :50856[; }RJ[K[S\ IMUS

ji ISTVMDFIAGI MUS ji ISTVM SZTF IJWFI S , FU6L JWFZ[HMUF D/[KP

VIC\5IZ6FDG\ XSI SFZ6 VF5TF SCL XSFI S# IGI IDT I MUIS| F SZTF
CMJFYL I MUS ji IST V|J\ IJRFZTF CM. XS[S[5MT[ALHF ; FDFgI , MSM SZTF S\ S
JWFZ[; FY'S 5P'IT SZL ZC| F K# H|G\ T|G| UFZJ YT\ CXp p5ZFT VFJL 5P'ITYL
ji ISTG[VFGW D/TM CMI XS# H[IJWFI S , FU6LG\ ; JRG SZ[KP p5ZFT wI FG4
5f6FI FD JUZ\YL ji ISTGL IJRFZX\ww YTL CMI T[56 ji ISTG[IJWFI S , FU6L
S\JF TZO , . HTL CMI T|J\AGL XSP

4.2.2.6.2 ji ISTVMGL HFIT s: +LVM VG[5]-QFMF VG[T|VMGL DGMJ{7FIGS
; |BFSFZLG\38S IJWFI S , FU6LP

5: T|T VwI I GDF\ : +LVM VG[5]-QFMGL IJWFI S , FU6L JrR[SM. ; FY'S TOFJT
HMUF D/[K[SD m T[HF6JFGF VFXI YL 'F' S; MBL äZFZ GLR[NXF"J|, X|I ptS<5GF
GL RSF; 6L SZJFDF\VFJL CTLP

X|I ptS<5GF GP **26.** : +LVM VG[5]-QFMGL IJWFI S , FU6LGF DGMJ{7FIGS
; |BFSFZLGF\38SGF\5f%TF'SMGF DwI SM JrR[SM. ; FY'S
TOFJT GYLP

SM8S GP **4.22** G\ IGZL1F6 SZTF H6FI K[S# HFITGA; NE'DF\ji ISTVMGL
IJWFI S , FU6LG\ 'F' D\I **0.28** 5f%T YI\ K# H[**0.05** S1FFV[; FY'S GYL4 SM8S GP
4.23 G\ IGZL1F6 SZTF H6FI K[S# : +LVMGL IJWFI S , FU6LGF\5f%TF'SMGM DwI S
1.67 K# VG[5]-QFMGL IJWFI S , FU6LGF\5f%TF'SMGMDwI S **1.75** KP AgG|GF DwI SM
JrR[DF+ **0.07** H|B, M VMKM TOFJT HMUF D/[KP 8\SD\ 5IZ6FDM 5ZYL SCL XSFI
S# : +LVM VG[5]-QFMGL IJWFI S , FU6LGF\5f%TF'SMGF DwI SM JrR[SM. ; FY'S TOFJT
GYL4 T|YL X|I ptS<5GFG| I YFJT ZFBJFDF\VFJ[KP

VIC\5IZ6FDG\ XSI SFZ6 VF5TF SCL XSFI S# JT'DFG ; DI DF\ : +L 56

IJIJ3 jI J; FI S1F+[5]-QFMGL H[D H SFI "SZJF , FUL K[p5ZFT UIC6LVMG[56
V[U]OL, YTYCMI S[T[U'CSFI 'GL V[VUtI GL HJFANFZL p5F0[K[E, [VYM5FH'GGL
5U'IT G SZTL CMI 5ZT[Z; M. 4 AF/SMGM pK[JUZ[; FY'S 5U'IT SZTL CMJFYL
5]-QFH[B, L H IJWFI S , FU6L VG[EJTL CX[T[U]AGL XS[TYL H SNFR : +LVM VG[
5]-QFMGL IJWFI S , FU6LDF; FY'S TOFJT HMJF GIC D?I M CMI P

4.2.2.6.3 jI ISTVMGL pDZ VG[T[VMGL DGMU{7FIGS ; }BFSFZLG\ 38S
IJWFI S , FU6LP

jI ISTVMGL IJWFI S , FU6L 5Z T[VMGL pDZ (21 YL 35 JQF" 36 YL 50
JQF" 51 & TYL JW] JQF" SM. V; Z SZ[K[S[S]D T[HF6JF DF8['F' S; MBL äZFZ GLR[
NXFJ[, XhI ptS<5GFGL RSF; 6L SZJFDF VEFJL CTLP

XhI ptS<5GF GP **27.** HJNL HJNL pDZ 3ZFJTL jI ISTVMGL IJWFI S , FU6LGF
DGMU{7FIGS ; }BFSFZLGF 38SGF 5F%TFSMGF DwI SM JrR[
SM. ; FY'S TOFJT GYLP

SM8S GP **4.22** G\ IGZL1F6 SZTF H6FI K[S[jI ISTVMGL pDZGF; NE'DF
T[VMGL IJWFI S , FU6L DF8[G] 'F' DkI **0.28** 5F%T YI] K[H[**0.05** S1FFV[; FY'S GYLP
TYL XhI ptS<5GFG[I YFJT ZFBJFDF VEFJ[K[SM8S GP **4.23** G\ IGZL1F6 SZTF HMJF
D/[K[S[**21** YL **35** JQF" ;]MLGL pDZ 3ZFJTF jI ISTVMGL IJWFI S , FU6LGF
5F%TFSMGM DwI S **1.74** K[**36** YL **50** JQF" ;]MLGL pDZ 3ZFJTF jI ISTVMGL IJWFI S
, FU6LGF 5F%TFSMGM DwI S **1.73** K[VG[**51** JQF" VG[TYL J3FZ[pDZ 3ZFJTF
jI ISTVMGL IJWFI S , FU6LGF 5F%TFSMGM DwI S **1.65** K[pDZGF +6[HYMGF DwI SM
JrR[GM TOFJT sHY V[VG[A[HY V[VG[+6 TYF HY A[VG[+6f VG[S]D[
0.01, 0.09, VG[**0.08** K[TOFJTM 5ZYL :508 HM. XSFI K[S[HJNL HJNL pDZ
3ZFJTL jI ISTVMGF IJWFI S , FU6LGF 5F%TFSMGF DwI SM JrR[SM. ; FY'S TOFJT
HMJF D/TM GYLP

4.2.2.6.4 jI ISTGM 5[SFZ4 HFIT VG[pDZGL VFTZIS|I FGL DGMU{7FIGS

;]BFSFZLG\38S IJWFI S , FU6L 5Z V; ZP

jI ISTVMGM 5]SFZ T]VMGL HFIT VG[H]NLvH]NL pDZGL +6 S1FFVM VF +6[:JT+ 5IZJtI MGL D]I V; Z p5ZFT +6[5IZJtI MGL 5Z:5Z VFTZIS|I FGL T]VMGL IJWFI S , FU6L 5Z S]L V; Z YFI K[T[HF6JF DF8['F' S; MBL äZF GLR[NXF"J, X]I ptS<5GFGL RSF; 6L SZJFDF\VFJL CTLP

X]I ptS<5GF GP **28.** jI ISTGM 5]SFZ4 HFIT VG[pDZGL VFTZIS|I FGL ; FY'S V; Z T]VMGL IJWFI S , FU6LGF\ DGMU{7FIGS ;]BFSFZL GF\38S 5Z YTL GYLP

IJIJ3 :TZGL VFTZIS|I FtDS V; ZM HF6JF DF8[I+DFUL" IJRZ6 5yYSZ6 SZTF jI ISTGM 5]SFZ VG[HFIT (AxB), jI ISTGM 5]SFZ VG[pDZ (AxC), HFIT VG[pDZ (BxC), jI ISTGM 5]SFZ4 HFIT VG[pDZ (AxBxC) V]D S], RFZ VFTZIS|I FVMGL IJWFI S , FU6L 5Z V; Z HF6JF DF8['F' D]I M XMWJFDF\VFjI F CTFP

SM8S GP **4.22** G\ IGZL1F6 SZTF H6FI K[S] jI ISTGM 5]SFZ VG[HFIT (AxB) GL VFTZIS|I FG\ 'F' D]I **7.63** 5F%T YI \K] H[**0.01** S1FFV[; FY'S K] TYL SCL XSFI S] jI ISTGM 5]SFZ VG[HFITGL VFTZIS|I FtDS V; Z IJWFI S , FU6L 5Z HMJF D/[KP

jI ISTGM 5]SFZ VG[T]VMGL HFITGL VFTZIS|I FG\ VY"38G DF8[IJIJ3 H]MGE Dwl SM JrR]GF TOFJTGL ; FY'STF XMWJF DF8[**L.S.D.** SM8S XMWJFDF\ VFjI] CTFP T]G\ 5IZ6FD SM8S GP **4.24** DF\NXF"JJFDF\ VFjI \ KP

SM8S GP 4.24

jI ISTGM 5]SFZ VG[T]VMGL HFITGL VFTZIS|I FG**L.S.C.** SM8S

SR. NO.	Pairs	Mean difference	Sig.
1	A ₁ B ₁ vs A ₁ B ₂	0.01	NS
2	A ₁ B ₁ vs A ₂ B ₁	0.25	0.01
3	A ₁ B ₁ vs A ₂ B ₂	0.09	NS

4	A₁B₂ vs A₂B₁	0.24	0.01
5	A₁B₂ vs A₂B₂	0.08	NS
6	A₂B₁ vs A₂B₂	0.16	0.01

0.05 = 0.12

0.01 = 0.16

NS = Not Significant

SMDS GP 4.24 G\ IGZL1F6 SZTF H6FI K\ S\ I MUS : +LVMDFAIAGI MUS : +LVM SZTF JWFZ\ IJWFI S , FU6L HMUF D/\ KP AgGGL IJWFI S , FU6LGF\ Dwl SM JrR\ 0.25 H\, M TOEJT HMUF D/\ KP T\ 0.01 S1FFV\ ; FY'S KP I MUS 5\~QFMDFA IAGI MUS : +LVM SZTF JWFZ\ IJWFI S , FU6L HMUF D/\ KP AgGGL IJWFI S , FU6L JrR\GF Dwl SM JrR\ 0.24 TOEJT HMUF D/\ KP T\ 0.01 S1FFV\ ; FY'S KP IAGI MUS 5\~QFMDFA IAGI MUS : +LVM SZTF JWFZ\ IJWFI S , FU6L HMUF D/\ K\ AgGGL IJWFI S , FU6LGF\ Dwl SM JrR\ 0.16 TOEJT HMUF D/\ KP H\ 0.01 S1FFV\ ; FY'S KP VED jI ISTGM 5\SFZ VG\ HFITGL VFTZIS\ I FGA ; NE'DFA T\VMGL IJWFI S , FU6LGF Dwl SMGL ; FY'STEGL RSF; 6L L.S.D. äZF SZTF SMDS GP 4.24 D\HMTF H6FI K\ S\ +6 HMOLVM JrR\GM TOEJT 0.01 S1FFV\ ; FY'STE D\I 3ZEF\ K\ HI FZ\ +6 HMOLVM JrR\ ; FY'S TOEJT HMUF D\TMGYLP

jI ISTGM 5\SFZ VG\ T\VMGL pDZ (AxC) GL VFTZIS\ I FtDS V ; ZG\ 'F' D\I 0.16 5F%T YI\ KP T\ 0.05 S1FFV\ ; FY'S GYLP T\YL SCL XSFI S\ jI ISTGM 5\SFZ VG\ T\VMGL pDZGL VFTZIS\ I FtDS V ; Z T\VMGL IJWFI S , FU6L 5Z HMUF D\TLGYLP

jI ISTGM 5\SFZ HFIT VG\ pDZ (BxC) GL VFTZIS\ I FtDS V ; ZG\ 'F' D\I 0.17 5F%T YI\ KP T\ 56 0.05 S1FFV\ ; FY'S GYLP T\YL SCL XSFI S\ jI ISTGL HFIT VG\pDZGL VFTZIS\ I FtDS V ; Z T\VMGL IJWFI S , FU6L 5Z HMUF D\TLGYLP

jI ISTGM 5\SFZ4 HFIT VG\ pDZ (AxBxC) GL VFTZIS\ I FtDS V ; ZG\ 'F' D\I 0.00 5F%T YI\ KP T\ 56 0.05 S1FFV\ ; FY'S GYLP T\YL SCL XSFI S\ jI ISTGM

5\$FZ4 HFIT VG[pDZGL VFTZIS|I FtDS V; Z T[MGL IJWF I S , FU6L 5Z YTL GYLP
 p5ZMST RRF" 5ZYL SCL XSFI S\$ jI ISTGL HFIT VG[pDZ4 jI ISTGM 5\$FZ
 VG[pDZ T|DH jI ISTGM 5\$FZ4 HFIT VG[pDZ VF 5IZJtI MGL VFTZIS|I FtDS V; Z
 T[MGL IJWF I S , FU6L 5Z HMJF D/TL GYL4 HI FZ[jI ISTGF 5\$FZ VG[HFITGL
 VFTZIS|I FtDS V; Z IJWF I S , FU6L 5Z HMJF D/L KP

4.2.2.7 jI ISTGM 5\$FZ4 HFIT VG[pDZGF ; NE'DF\ DGMJ{7FIGS ; }BFSFZLG
38S SFI DL 5J'IT

2x2x3 O\$8MZI , I MHGF VTU" T jI ISTGM 5\$FZ4 HFIT VG[pDZ VF +6[
 :JT+ 5IZJtI MGL D|I T|DH VFTZIS|I FtDS V; ZM DGMJ{7FIGS ; }BFSFZLG\ V\$
 38S SFI DL 5J'IT 5Z YFI K[S|SD T[HF6JF DF8[I+DFUL" IJRZ6 5yYSZ6 5wWIT
 äZF 4 X|I ptS<5GF (S|D GP 29 YL 32) GL RSF; 6L DF8['F' D}I M XIMJFDF\VFj I F
 CTFP VF ; NE'DF\ D/[IJIJ3 VFSOFSLI IJUTM SM8S GP 4.25, 4.26 VG[4.27 DF\
 ZH}SZJFDF\VFJL KP

SM8S GP 4.25

O\$8MZI , I MHGF VTU" T IJ IJW HYMGL DGMJ{7FIGS ; }BFSFZLG\ 38S
 SFI DL 5J'ITGF\5F%TF\$MGF DwI SM TYF 5|DF6 IJR, GMP
2x2x3 O\$8MZI , I MHGF (N=480)

	A₁ I MUS jI ISTVM n = 240		A₂ I AGI MUS jI ISTVM n = 240	
	B₁	B₂	B₁	B₂
pDZ	:+LVM	5]-QFM	:+LVM	5]-QFM
	120	120	120	120
	n=40	n=40	n=40	n=40

	M=1.73	M=1.75	M=1.18	M=1.18
	S.D.=0.50	S.D.=0.38	S.D.=0.90	S.D.=0.70
C₂ 36 YL 50 JQF"	n=40	n=40	n=40	n=40
	M=1.70	M=1.65	M=1.15	M=1.33
	S.D.=0.51	S.D.=0.82	S.D.=0.65	S.D.=0.69
C₃ 51 & T[YL JW] JQF"	n=40	n=40	n=40	n=40
	M=1.73	M=1.75	M=1.60	M=1.40
	S.D.=0.50	S.D.=0.43	S.D.=0.32	S.D.=0.59

SM8S GP 4.26

jI ISTGM 5\$FZ4 HFIT VG[pDZGF ; NE'DA\ DGMJ{7FIGS ; }BFSFZLG\ 38S
SFI DL 5P'IT VUGF ANOVA GM ; FZFX
2x2x3 0\$8MZI , I MHGF (N=480)

Variable	df	S.S.	MASSQ	F	Sig. level
A sjI ISTGM 5\$FZf	1	7.526	7.526	21.26	0.01
B sHFITf	1	3.384	3.384	0.60	NS
C spDZf	1	1.426	1.426	0.25	NS
AxB	1	3.384	3.384	0.57	NS
AxC	1	0.459	0.459	0.77	NS
BxC	1	6.501	6.501	1.09	NS
AxBxC	1	3.151	3.151	0.53	NS
W.S.S.	472	28.9812	5.953		
Total	479	4098.000			

SM8S GP 4.27

HJYMG L DGMJ{7FIGS ; }BFSFZLG\ 38S SFI DL 5P'ITGF\ 5F%TF\$M TYF DwI SM
JrR\GM TOFJT

:JT+ 5IZJtIM	S1FFVM	; bIF	Dwl S	Dwl SM JrR[GM TOFJT
jI ISTGM5SFZ (A)	A ₁ IMUS jI ISTVM	240	1.72	0.28
	A ₂ IAGIMUS jI ISTVM	240	1.31	
HFIT (B)	B ₁ :+LVM	240	1.52	0.11
	B ₂ 5]-QFM	240	1.51	
pDZ (C)	C ₁ 21 YL 35 JQF"	160	1.46	1/2 = 0
	C ₂ 36 YL 50 JQF"	160	1.46	1/3 = 0.16
	C ₃ 51 & T[YL JW]JQF"	160	1.62	2/3 = 0.16

4.2.2.7.1 jI ISTGM 5SFZ VG[T[VMGL DGMU{7FIGS ;]BFSFZLG}38S SFI DL 5P'IT

VCL\SFI DL 5P'IT Vß, [jI IST 5MTFGA ÒJGDA IGI IDT56[H[S\ 5P'ITVM
SZ[K[T]DFYL VFGN 5F%T SZ[K[S[SD m VG[jI IST 5MT[5MTFGA ÒJGDA VUtI GFA
IG6"IM, [JFDA ; 1FD K[S[SD m T[VU[HF6SFZL VF 38S äZF 5F%T YFI KP 5]:TJ
VwI I GDA jI ISTGL SFI DL 5P'IT 5Z jI ISTGF 5SFZGL sIMUS VG[IAGIMUS
jI ISTVMf V; Z YFI K[SD[T[HF6JFGA VFXI YL VFSOFXF: +LI 'F' S; MBL äZF GLR[
NXFJ[, XjI ptS<5GFGL RSF; 6L SZJFDA VEFJL CTLP

XjI ptS<5GF GP **29**. IMUS VG[IAGIMUS jI ISTVMGL SFI DL 5P'ITGF
DGMU{7FIGS ;]BFSFZLGF 38SGA 5F%TFSMGF DwI SM
JrR[SM. ; FYS TOFJT GYLP

SMQ8S GP **4.26** G\ IGZL1F6 SZTF H6FI K[S\ jI ISTGA 5SFZGA ; NE'DFA
T[VMGL SFI DL 5P'IT DF8[G\ 'F' DkI **21.26** 5F%T YI\K\ H[**0.01** S1FFV[; FYS K\
T[YL p5ZMST XjI ptS<5GFGM VI: JSFZ SZJFDA VEFJL KP SMQ8S GP **4.27** G\ IGZL1F6
SZTF H6FI K[S\ IMUS jI ISTVMGL SFI DL 5P'ITGF 5F%TFSMGM DwI S **1.72** K\
HI FZ[IAGIMUS jI ISTVMGL SFI DL 5P'ITVMGF 5F%TFSMGM DwI S **1.31** KP T]DGL

JrR[GM TOFJT 0.41 HMUF D/[KP DwI SM JrR[GM TOFJT :50856[; RJ[K[S[I MUS jI ISTVMDA IAGI MUS jI ISTVM SZTF SFI DL 5P'IT JWFZ[HMUF D/[KP

VIC\ 5IZ6FDG\ XSI SFZ6 VF5TF SCL XSFI S[I MUS jI ISTVM IGI IDT ZLT[H[I MUS 5P'ITVM SZ[K[T[GFYL T[VM ALHF ; FDFgl , MSM SZTF S\ S ; FZL 5P'IT SZ[K[T[PL , FU6L T[VMG[YTL CX[T[PL AGL XS[HI FZ[ALÒ AFH] IAGI MUS jI ISTVM SNFR SFI DL ZMÒNL 5P'ITVMYL S8F/L HTL CMI T[PL AGL XSP T[YL H SNFR IAGI MUS jI ISTVM SZTF I MUS jI ISTVMDA SFI DL 5P'ITG\ 5P'DF6 ; FY'S ZLT[JW HMUF D?I \ CX[T[PL CMI XSP

4.2.2.7.2 jI ISTVMGL HFIT VG[T[VMGL DGMU{7FIGS ; }BFSFZLG\ 38S SFI DL 5P'IT

5]: T[VwI I GDF\ : +LVM VG[5]-QFMGL SFI DL 5P'IT JrR[SM. ; FY'S TOFJT HMUF D/[K[S[SD T[HF6JFG\ VFXI YL 'F' S; MBL äFZF GLR[D]HA X]I ptS<5GFGL RSF; 6L SZJFDA\ VFJL CTLP

X]I ptS<5GF GR 30. : +LVM VG[5]-QFMGL SFI DL 5P'ITGF DGMU{7FIGS ; }BFSFZLGF 38SGF 5F%TFSMGF DwI SM JrR[SM. ; FY'S TOFJT GYLP

SM8S GP 4.26 G\ IGZL1F6 SZTF H6FI K[S[HFITG\ ; NE'DF]I ISTVMGL SFI DL 5P'ITG\ 'F' D]I 0.60 5F%T YI \ K[H[0.05 S1FFV[; FY'S GYL4 SM8S GP 4.27 G\ IGZL1F6 SZTF H6FI K[S[: +LVMGL SFI DL 5P'ITG\ 5F%TFSMGM DwI S 1.52 K[VG[5]-QFMG\ SFI DL 5P'ITG\ 5F%TFSMGM DwI S 1.51 KP A]G]GF DwI SM JrR[0.01 H[JM GICJT TOFJT HMUF D/[KP 8]SDA\ 5IZ6FDM 5ZYL SCL XSFI S[: +LVM VG[5]-QFMGL SFI DL 5P'ITG\ 5F%TFSMGF DwI SM JrR[SM. ; FY'S TOFJT GYL4 T[YL X]I ptS<5GFG[I YFJT ZFBJFDA\ VFJ[KP

VIC\ 5IZ6FDG\ XSI SFZ6 VF5TF SCL XSFI S[: +LVM VG[5]-QFMGL

SFI 'E)DSF E , [H]NLvH]NL CMI 4 5ZT] A_gGG[5MTv5MTFGL 5P]ITVMYL V_S ; ZBM H ; TMOF D/TM CX] T] AGL XSP 5]-0FMG[H]D VFIYS p5FH'GGL 5P]IT VUtI GL , FUTL CX[T]D :+LVMG[56 5MT[U'CSFI "VG[AF/pKZGL V_S VUtI GL HJFANFZ 5P]IT SZL ZCL K] T] , FUT] CX[T]YL H SNFR :+LVM VG[5]-0FMGL SFI DL 5P]IT JrR[; FY'S TOFJT HMF GIC D?I M CMI T] AGL XSP

4.2.2.7.3 jI ISTGL pDZGF ; NE'DF\ DGMU{7FIGS ;]BFSFZLG\ 38S SFI DL 5P]IT

jI ISTVMGL SFI DL 5P]IT 5Z T]MGL pDZGL (**21** YL **35** JOF⁴ **36** YL **50** JOF⁴ **51** & T]YL JW] JOF⁴ SM. V ; Z YFI K[S] SD T] HF6JF DF8['F' S ; MBL äFZF GLR[NXF]J, X]I ptS<5GFGL RSF; 6L SZJFDF\ VFJL CTLP

X]I ptS<5GF GP **31**. H]NLvH]NL pDZ 3ZFJTL jI ISTVMGL SFI DL 5P]ITGF 5F%TFSMGF\ Dwl SM JrR[SM. ; FY'S TOFJT GYLP

SM8S GP **4.26** G] IGZL1F6 SZTF H6FI K[S] jI ISTVMGL pDZGF\ ; NE'DF\ T]MGL SFI DL 5P]IT DF8[G] 'F' D]I **0.25** 5F%T YI] K] H[**0.05** S1FFV[; FY'S GYLP T]YL X]I ptS<5GFG[I YFJT ZFBJFDF\ VFJ] K] SM8S GP **4.27** G] IGZL1F6 SZTF H6FI K[S] **21**YL **35** JOF⁴ ;]MGL pDZ 3ZFJTF jI ISTVMGL SFI DL 5P]ITGF\ 5F%TFSMGM Dwl S **1.46** K[**36** YL **50** JOF⁴ ;]MGL pDZ 3ZFJTF jI ISTVMGL SFI DL 5P]ITGF\ 5F%TFSMGM Dwl S **1.46** K[VG[**51** JOF⁴ VG[T]YL J3FZ[pDZ 3ZFJTF jI ISTVMGL SFI DL 5P]ITGF\ 5F%TFSMGM Dwl S **1.62** K] pDZGF +6[I H]YMGF\ Dwl SM JrR[GM TOFJT sHY V_S VG[A] HY V_S VG[+6 TYF HY A[VG[+6f VG]SD[**0.00, 0.16**, VG[**0.16** HMF D/[K] TOFJTM 5ZYL :508 HM. XSFI K[S] H]NLvH]NL pDZ WZFJTL jI ISTVMGF\ 5F%TFSMGF\ Dwl SM JrR[SM. ; FY'S TOFJT GYLP

4.2.2.7.4 jI ISTGM 5]SFZ4 HFIT VG[pDZGL VFTZIS]I FGL DGMU{7FIGS ;]BFSFZLG\ 38S SFI DL 5P]IT 5Z V ; ZP

jI ISTGM 5]SFZ T]MGL HFIT VG[H]NLvH]NL pDZGL +6 S1FFVM VF +6[

:JT+ 5IZJtIMGL DpI V; Z p5ZFT +6[5IZJtIMGL 5Z:5ZGL VFTZIS|I FGL
TVMGL SFI DL 5JIT 5Z SJL V; Z K[T[HF6JF DF8['F' S; MBL äZF GLR[NXF"J,
XjI ptS<5GFG RSF; 6L SZJFDF\VFJL CTLP

XjI ptS<5GF GP **32.** jI ISTGM 5SFZ4 HFIT VG[pDZGL VFTZIS|I FGL ; FY'S
V; Z TVMGL SFI DL 5JITGF DGMU{7FIGS ; }BFSFZLGF
38S 5Z YTL GYLP

IJIJ3 :TZGL VFTZIS|I FtDS V; ZM HF6JF DF8[I+DFUL" IJRZ6 5yYSZ6
SZTF jI ISTGM 5SFZ VG[HFIT (**AxB**), jI ISTGM 5SFZ VG[pDZ (**AxC**), HFIT VG[
pDZ (**BxC**), jI ISTGM 5SFZ4 HFIT VG[pDZ (**AxBxC**) V[D S], RFZ VFTZIS|I FVMGL
SFI DL 5JIT 5Z V; Z HF6JF DF8['F' DkI M XMWJFDF\VFjI F CTFP

SM8S GP **4.26** G\IGZL1F6 SZTF H6FI K[S# jI ISTGM 5SFZ VG[HFIT (**AxB**)
GL VFTZIS|I FG\ 'F' DkI **0.57** 5F%T YI \ K# T[**0.05** S1FFV[; FY'S GYL T\YL SCL XSFI
S# jI ISTGM 5SFZ VG[HFITGL VFTZIS|I FtDS V; Z TVMGL SFI DL 5JIT 5Z HMJF
D/TL GYLP

jI ISTGM 5SFZ4 HFIT VG[TVMGL pDZ (**AxC**) GL VFTZIS|I FtDS V; ZG\ 'F'
DkI **0.77** 5F%T YI \ K[T[56 **0.05** S1FFV[; FY'S GYL T\YL SCL XSFI S# jI ISTGM
5SFZ VG[pDZGL VFTZIS|I FtDS V; Z TVMGL SFI DL 5JIT 5Z HMJF D/TL GYLP

jI ISTGL HFIT VG[pDZ (**BxC**) GL VFTZIS|I FtDS V; ZG\ 'F' DkI **1.09**
5F%T YI \ K[T[56 **0.05** S1FFV[; FY'S GYL T\YL SCL XSFI S# jI ISTGL HFIT VG[
pDZGL VFTZIS|I FtDS V; Z TVMGL SFI DL 5JIT 5Z YTL GYLP

jI ISTGM 5SFZ VG[TVMGL pDZ (**AxBxC**) GL VFTZIS|I FtDS V; ZG\ 'F'
DkI **0.53** 5F%T YI \ K# T[56 **0.05** S1FFV[; FY'S GYL4 T\YL SCL XSFI S# jI ISTGM
5SFZ4 HFIT VG[pDZGL VFTZIS|I FtDS V; Z TVMGL SFI DL 5JIT 5Z YTL GYL
T\YL XjI ptS<5GFG|I YFJT ZFBJFDF\VFJ[KP

4.2.2.8 jI ISTGM 5SFZ4 HFIT VG[pDZGF ; NE'DF\ DGMU{7FIGS ; }BFSFZLGM

38S ÒJG ; ¶¶MDFP

2x2x3 0§8MZI , I MHGF V¶TU'T jI ISTGM 5§FZ4 HFIT VG[pDZ VF +6[
 :JT+ 5IZJtI MGL cÒJG ; ¶¶MDF c 5Z DpI VG[VFTZIS|I FtDS V; ZMYFI K[S[SD T[
 HF6JF DF8[I+DFUL'I IJRZ6 5yYSZ6 5wWIT äFZF4 XpI ptS<5GF (SD
 GP 33 YL 36) GL RSE; 6L DF8['F' D}I MXMWJFDF\ VFjIF CTFP VF ; NE'DF\D/[,
 IJIJ3 VFSOFSLI IJUTM SM8S GP 4.28, 4.29 VG[4.30 DF\ZH}SZJFDF\VFJL KP

SM8S GP 4.28

0§8MZI , I MHGF V¶TU'T IJIJW HYMGL DGMJ{7FIGS ; }BFSFZLG\ 38S
 ÒJG ; ¶¶MDFGF 5F%TF§MGE DwI SM TYF 5|DF6 IJR, GMP
 2x2x3 0§8MZI , I MHGF (N=480)

	A₁ I MUS jI ISTVM n = 240		A₂ IAGI MUS jI ISTVM n = 240	
	B₁	B₂	B₁	B₂
pDZ	:+LVM	5]-QFM	:+LVM	5]-QFM
	120	120	120	120
C₁ 21 YL 35 JQF"	n=40	n=40	n=40	n=40
	M=1.78	M=1.48	M=0.85	M=0.8
	S.D.=0.47	S.D.=0.71	S.D.=0.67	S.D.=0.77
	n=40	n=40	n=40	n=40

	M=1.73	M=1.63	M=0.93	M=1.20
	S.D.=0.50	S.D.=0.62	S.D.=0.81	S.D.=0.71
C₃ 51 & T[YL JW] JQF"	n=40	n=40	n=40	n=40
	M=1.73	M=1.50	M=1.15	M=1.03
	S.D.=0.50	S.D.=0.71	S.D.=0.88	S.D.=0.79

SMQ8S GP 4.29

jI ISTGM 5\$FZ4 HFIT VG[pDZGF ; NE'DF\ DGMU{7FIGS ; }BFSFZLG\ 38S
 ÒJG ; TTMF VUJGF ANOVA GM ; FZFX
 2x2x3 0\$8MZI , I MHGF (N=480)

Variable	df	S.S.	MASSQ	F	Sig. level
A sjI ISTGM 5\$FZf	1	43.350	43.350	86.74	0.01
B sHFITf	1	0.204	0.204	0.41	NS
C spDZf	1	1.838	1.838	3.677	0.05
AxB	1	2.017	2.017	4.04	0.05
AxC	1	0.267	0.267	0.53	NS
BxC	1	0.704	0.704	1.41	NS
AxBxC	1	6.667	6.667	1.43	NS
W.S.S.	472	438.962	0.500		
Total	479	1973.000			

SMQ8S GP 4.30

HYMGL DGMJ{7FIGS ; }BFSFZLG\38S ÒJG ; }TMOFGF\DWI SM TYF
DWI SM JrR[G\F\TOFJT

:JT+ 5IZJtIM	S1FFVM	; bIF	DwI S	DwI SM JrR[GM TOFJT
jI ISTGM5}SFZ (A)	A ₁ IMUS jI ISTVM	240	1.64	0.65
	A ₂ IAGIMUS jI ISTVM	240	0.99	
HFIT (B)	B ₁ :+LVM	240	1.36	0.09
	B ₂ 5}-QFM	240	1.27	
pDZ (C)	C ₁ 21 YL 35 JOF"	160	1.39	1/2 = 0.14
	C ₂ 36 YL 50 JOF"	160	1.37	1/3 = 0.12
	C ₃ 51 & T[YL JW] JOF"	160	1.35	2/3 = 0.02

4.2.2.8.1 jI ISTGM 5}SFZ VG[}TVMGL DGMJ{7FIGS ; }BFSFZLG\38S
ÒJG ; }TMOFP

VCL\ ÒJG ; }TMOFV[jI ISTGM 5MTFGM ÒJG 5}tI[GM VIEUD VG[JTDfG
; DI T[G\F\DF8[SB, M DCtJGM K[T[VUUG\ ; }RG SZ[KP 5}:TJT Vwi I GDFjI ISTGF\
ÒJG ; }TMOF 5Z jI ISTGF\5}SFZGL sI MUS VG[IAGIMUS jI ISTVMF V; Z YFI K[S]
SD T[HF6JFGF\VFXI YL VFSOFXF: +LI 'F'S; MBL äfZF GLR[NXF]J, X}I ptS<5GFGL
RSF; 6L SZJFDF\VFJL CTLP

X}I ptS<5GF GP **33**. IMUS VG[IAGIMUS jI ISTVMGF ÒJG ; }TMOFGF
DGMJ{7FIGS ; }BFSFZLGF 38SGF\5}F%TFSMGF DWI SM
JrR[SM. ; FYS TOFJT GYLP

SM8S GP **4.29** G\ IGZL1F6 SZTF H6FI K[S} jI ISTGF\5}SFZGF\; NE'DF\
}TVMGF ÒJG ; }TMOF DF8[G\ 'F' D}I **86.74** 5}F%T YI \ K} H[**0.01** S1FFV[; FYS K}
T[YL p5ZMST X}I ptS<5GFGM VI: JSFZ SZJFDF\VFJ[KP SM8S GP **4.30** G\ IGZL1F6

SZTF H6FI K[S# I MUS jI ISTVMGF ÒJG ; ¶TMDFG\5F%TF\$SMGM Dwl S **1.64** K#
HI FZ[IAGI MUS jI ISTVMGF ÒJG ; ¶TMDFG\ 5F%TF\$SMGM Dwl S **0.99** K# TDGL JrR[GM
TOFJT **0.65** H# , M JWfZ[HMJF D/[K# Dwl SM JrR[GM TOFJT :50856[; ¶RJ[K[
S# I MUS jI ISTVMDF\ IAGI MUS jI ISTVM SZTF JWfZ[5DF6DF\ ÒJG ; ¶TMDF
HMJF D/[K#

VIC\5IZ6FDG\ ; ¶EIJT SFZ6 VF5TF SCL XSFI S# I MUS|F SZJFYL
jI ISTDF\CSFZftDS VIEUD S/ JFTMCX# H[jI ISTG[ÒJG ; ¶TMDF D/[JJF TZ0 , .
HTM CMI T# \ AGL XSP p5ZFT I MUS jI ISTG[5MT[ALHF , MSM SZTF S\ S ; FZL
5# 'IT SZL ZCIF K[T# F IJRFZMYL 56 T# VMG[5MTFG\ ÒJG ; ¶TMDF5# , FUT# CMI T# \
AGL XSP T# YL H SNFR I MUS jI ISTVMDF\ IAGI MUS jI ISTVM SZTF JWfZ[ÒJG
; ¶TMDF HMJF D?I M CMI T# \ CM. XSP

4.2.2.8.2 jI ISTGL HFIT VG[T# VMDF\ DGMJ{7FIGS ; ¶BFSFZLG\ 38S ÒJG
; ¶TMDFP

5):TJT Vwl I GDF\ :+LVM VG[5]-QFMGF\ ÒJG ; ¶TMDF JrR[SM. ; FY'S TOFJT
HMJF D/[K[S[SD T[HF6JFGF VFXI YL 'F' S; MBL äFZF GLR[D]HA X# I ptS<5GFGL
RSF; 6L SZJFDF\ VFJL CTLP

X# I ptS<5GF GP **34.** :+LVM VG[5]-QFMGF\ ÒJG ; ¶TMDFGF DGMJ{7FIGS
; ¶BFSFZLGF\ 38SGF\ 5F%TF\$SMGF\ Dwl SM JrR[SM. ; FY'S
TOFJT GYLP

SMQ8S GP **4.29** G\ IGZL1F6 SZTF H6FI K[S# HFITGF\ ; NE'DF\ jI ISTVMGF
ÒJG ; ¶TMDFG\ 'F' D# I **0.41** 5F%T YI \ K# H[**0.05** S1FFV[; FY'S GYL4 SMQ8S GP **4.30**
G\ IGZL1F6 SZTF H6FI K[S# :+LVMGF ÒJG ; ¶TMDFG\5F%TF\$SMGM Dwl S **1.36** K[
VG[5]-QFMGF\ ÒJG ; ¶TMDFG\5F%TF\$SMGM Dwl S **1.27** K# A# G[GF Dwl SM JrR[**0.09**
H# , M VMKM TOFJT HMJF D/[K# 8)SDF\ 5IZ6FDM 5ZYL SCL XSFI S# :+LVM VG[

5]-QFMGF ÒJG ; ¶TMDFGF 5F%TF'SMGF DwI SM JrR[SM. ; FY'S TOFJT GYL4 T¶YL X¶I
ptS<5GFG[I YFJT ZFBJFDF\ VFJ[KP

VCL\ 5IZ6FDG\ XSI SFZ6 VF5TF SCL XSFI S¶ : +LVM VG[5]-QFMGM NZHHM
VG[E]DSF VF56F ; DFHDF H¶NFvH¶NF CMJF KTF\A ¶GG[5MDFGF SFI 'DFYL V[
; ZBM H VFGN 5F%T YTM CMI T¶\ AGL XSP 5]-QF E, [ÒJG IGJF'C DF8[GL D¶I
5¶IT VYM5FH'G SZTM CMI 4 5ZT] : +LVMGL E]DSF 56 S. VMKL DctJGL GYL T¶\
: +LVMG[56 OL, YT\ CMI T¶\ CM. XSP T¶YL H SNFR : +LVM VG[5]-QFM JrR[ÒJG
; ¶TMDFGL AFATDF\ ; FY'S TOFJT HMJF G D/TM CMI T¶\ CM XSP

4.2.2.8.3 jI ISTVMGL p'DZGF\ ; NE'DF\ DGJ{7FIGS ;]BFSFZLG\ 38S ÒJG ; ¶TMDF

jI ISTVMGF\ ÒJG ; ¶TMDF 5Z T¶MGL p'DZ (21 YL 35 JQF 36 YL 50 JQF
51 & T¶YL JW] JQFF SM. V; Z SZ[K[S[SD T[HF6JF DF8['F' S; MBL äZF GLR[
NXFJ], X¶I ptS<5GFG[RSF; 6L SZJFDF\ VFJL CTLP

X¶I ptS<5GF GR 35. H¶NlvH¶Nl p'DZ 3ZFJTL jI ISTVMGF\ ÒJG ; ¶TMDFGF\
DGJ{7FIGS ;]BFSFZLGF 38SGF 5F%TF'SMGF DwI SM JrR[
SM. ; FY'S TOFJT GYLP

SM8S GP 4.29 G\ IGZL1F6 SZTF H6FI K[S¶ jI ISTVMGL p'DZGF ; NE'DF\
T¶MGL ÒJG ; ¶TMDFG\ 'F' D¶I 3.677 5F%T YI\ K¶ H[0.05 S1FFV[; FY'S KP T¶YL
X¶I ptS<5GFGM VI: JSFZ SZJFDF\ VFJ[KP SM8S GP 4.30 G\ IGZL1F6 SZTF H6FI
K[S¶ 21 YL 35 JQF"; ¶MGL p'DZ 3ZFJTf jI ISTVMGF\ ÒJG ; ¶TMDFGF\ 5F%TF'SMGM DwI S
1.23 K¶ 36 YL 50 JQF"; ¶MGL p'DZ 3ZFJTf jI ISTVMGF ÒJG ; ¶TMDFGF\ 5F%TF'SMGM
DwI S 1.37 K[T¶DH 51 JQF" VG[T¶YL J3FZ[p'DZGL jI ISTVMGF\ ÒJG

; $\nabla \text{TMDFGF} \setminus 5\% \text{TFSMGM} \text{Dwl S } 1.35 \text{ K}\$ 21 \text{ YL } 35 \text{ JQF}^4 36 \text{ YL } 50 \text{ JQF}^4$; JLGL pDZ
 $3\text{ZFJTF jI ISTVMGF } \grave{\text{O}}\text{JG}$; $\nabla \text{TMDFGF} \text{Dwl SM JrR[} 56 \text{ } 0.14 \text{ H}\beta$, M TOFJT HMF D/[
 $\text{Kp } 21 \text{ YL } 35 \text{ JQF}^4 \text{VG[} 51 \text{ JQF}^4 \text{ pDZGL jI ISTVMGF } \grave{\text{O}}\text{JG}$; $\nabla \text{TMDFGF} \text{Dwl SM JrR[} 56$
 $0.12 \text{ H}\beta$, M TOFJT HMF D/[$\text{Kp } 36 \text{ YL } 50 \text{ JQF}^4 \text{ VG[} 51 \text{ JQF}^4 \text{ \& T\} \text{YL JWFZ[pDZ}$
 $3\text{ZFJTL jI ISTVMGF } \grave{\text{O}}\text{JG}$; $\nabla \text{TMDFGF} \setminus 5\% \text{TFSMGM} \text{Dwl SM JrR[} 0.02 \text{ H}\beta$, M TOFJT HMF
 $\text{D/[Kp Dwl SM JrRGF} \text{ TOFJTM p5ZYL SCL XSFI S}\$ 21 \text{ YL } 35 \text{ JQF}^4$; JLGL pDZ
 $\text{WZFJTL jI ISTM\text{DFA} } 36 \text{ YL } 50 \text{ JQF}^4 \text{ VG[} 51 \text{ JQF}^4 \text{ VG[T\} \text{YL JWFZ[pDZ WZFJTL}$
 $\text{jI ISTVM} \text{SZTF JWFZ[} \grave{\text{O}}\text{JG}$; $\nabla \text{TMDF} \text{HMF D/[Kp}$

4.2.2.8.4 jI ISTGM 5\\$/Z4 HFIT VG[pDZGL VFTZIS|I FGL DGMU{7FIGS
 ; $\text{JBSFZLG} \setminus 38\text{S } \grave{\text{O}}\text{JG}$; $\nabla \text{TMDF} \text{5Z V; ZP}$

jI ISTGM 5\\$/Z T\}MGL HFIT VG[$\text{H}\} \text{NLvH}\} \text{NL pDZGL } +6 \text{ S1FFVM} \text{VF } +6$
 $5\text{IZJtI MGL } 5\text{Z:5Z VFTZIS|I FGL T\} \text{MGA } \grave{\text{O}}\text{JG}$; $\nabla \text{TMDF} \text{5Z S}\} \text{L V; Z K[T[HF6JF}$
 $\text{DF8['F' S; MBL } \grave{\text{a}}\text{ZF GLR[NXF}^4 \text{, X}\} \text{I ptS} < 5\text{GFGL RSF; 6L SZJFDA} \text{VFJL CTIP}$

$\text{X}\} \text{I ptS} < 5\text{GF GP } 36.$ jI ISTGM 5\\$/Z4 HFIT VG[pDZGL VFTZIS|I FGL; FY'S
 V; Z T\}MGA \ DGMU{7FIGS ; $\text{JBSFZLGF } 38\text{S } \grave{\text{O}}\text{JG}$
 ; $\nabla \text{TMDF} \text{5Z YTL GYLP}$

IJIJ3 :TZGL VFTZIS|I FtDS V; ZM HF6JF DF8[I+DFUL¹ IJRZ6 5yYSZ6
 SZTF jI ISTGM 5\\$/Z VG[HFIT (**AxB**), jI ISTGM 5\\$/Z VG[pDZ (**AxC**), HFIT VG[
 pDZ (**BxC**), jI ISTGM 5\\$/Z4 HFIT VG[pDZ (**AxBxC**) V[D S], RFZ VFTZIS|I FVMGL
 $\grave{\text{O}}\text{JG}$; $\nabla \text{TMDF} \text{5Z V; Z HF6JF DF8['F' D}\} \text{I M XMMJFDA} \text{VFjI F CTIP}$

SMD8S GP **4.29** G\}IGZL1F6 SZTF H6FI K[S}\\$ jI ISTGM 5\\$/Z VG[HFIT (**AxB**)

GL VFTZIS| FG) 'F' D)I **4.04** 5F%T YI) K) H[**0.05** S1FFV[; FY'S K) T)YL SCL XSFI S) jI ISTGM 5)SFZ VG[HFITGL VFTZIS| FtDS V; Z)JG;)MDF 5Z HMUF D/([K)

jI ISTGM 5)SFZ VG[HFITGL VFTZIS| FGA VY'38G DF8[IJIJ3 H)YMGF DwI SM JrR[GF TOFJTGL ; FYSTF XMWJF DF8[**L.S.D.** XMWJFDF V)jI] CTP T[G)5IZ6FD SM8S GP **4.31** DF\XF"JJFDF V)jI] K)

SM8S GP 4.31

jI ISTGM 5)SFZ VG[T)VMGL HFITGL VFTZIS| FG)**L.S.C.** SM8S

SR. NO.	Pairs	Mean difference	Sig.
1	A₁B₁ vs A₁B₂	0.21	0.05
2	A₁B₁ vs A₂B₁	0.77	0.01
3	A₁B₁ vs A₂B₂	0.74	0.01
4	A₁B₂ vs A₂B₁	0.56	0.01
5	A₁B₂ vs A₂B₂	0.53	0.01
6	A₂B₁ vs A₂B₂	0.02	NS

SM8S GP **4.31** G) IGZL1F6 SZTF H6FI K[S) I MUS : +LVMDA I MUS 5)-QFM SZTF JWFZ[)JG;)MDF HMUF D/([K) I MUS : +LVM VG[I MUS 5)-QFMGA)JG ;)MDFGA DwI SM JrR[**0.21** H), M TOFJT HMUF D/([K) H[**0.05** S1FFV[; FY'S K) I MUS : +LVM VG[IAGI MUS : +LVMGFA)JG ;)MDFGF DwI SM JrR[**0.77** H), MJ3FZ[TOFJT HMUF D/([K) H[**0.01** S1FFV[; FY'S K) T)YL SCL XSFI S) I MUS : +LVMDA

IAGI MUS : +LVM SZTF ÒJG; ¶TMOFG\ 5|DF6 ; FY'S ZLT[JWfZ[HMUF D/[KP I MUS : +LVM VG[IAGI MUS 5]-QFMGF ÒJG; ¶TMOFG\ 5F%TF\$MGF DwI SM JrR[**0.74** TOJT HMUF D/[KP H[**0.01** S1FFV[; FY'S K¶ T¶YL SCL XSFI S¶ I MUS : +LVMD\IAGI MUS 5)-QFM SZTF J3FZ[ÒJG ; ¶TMOF HMUF D/[KP I MUS 5)-QFM VG[IAGI MUS : +LVMGF ÒJG ; ¶TMOFG\ DwI SM JrR[**0.56** TOFJT HMUF D/[K[4 T[**0.01** S1FFV[; FY'S KP T¶YL SCL XSFI S¶ I MUS 5)-QMD\ IAGI MUS 5)-QFM SZTF JWfZ[ÒJG ; ¶TMOF HMUF D/[KP I MUS 5)-QFM VG[IAGI MUS 5)-QFMGF ÒJG; ¶TMOFG\ DwI SM JrR[**0.53** TOFJT HMUF D/[K¶ T[**0.01** S1FFV[; FY'S KP T¶YL SCL XSFI S¶ I MUS 5)-QMD\ IAGI MUS 5)-QFM SZTF ; FY'S ZLT[JWfZ[ÒJG ; ¶TMOF HMUF D/[KP VFD jI ISTGM 5|SFZ VG[T¶MGL HFITGF ÒJG; ¶TMOFG\ DwI SMGL ; FY'STFGL RSF; 6L **L.S.D.** äZFZ SZTF SM8S GP **4.28** D\HMTF H6FI K[S¶ DMBF EFUGL HMOLVM JrRGM TOFJT **0.05** VG[**0.01** S1FFV[; FY'S K¶ T¶YL SCL XSFI S¶ jI ISTVMGM 5|SFZ VG[HFITGL VFTZIS| FtDS V; Z T¶MGL ÒJG ; ¶TMOF 5Z YTL HMUF D/[KP

jI ISTGM 5|SFZ VG[T¶MGL pDZ (**AxC**) GL VFTZIS| FtDS V; ZG\ 'F' D¶I **0.53** 5F%T YI \ K¶ H[**0.05** S1FFV[; FY'S GYLP T¶YL SCL XSFI S¶ jI ISTGM 5|SFZ VG[pDZGL VFTZIS| FtDS V; Z T¶MGL ÒJG ; ¶TMOF 5Z HMUF D/TL GYLP

jI ISTGL HFIT VG[pDZ (**BxC**) GL VFTZIS| FtDS V; ZG\ 'F' D¶I **1.41** 5F%T YI \ K¶ T[56 **0.05** S1FFV[; FY'S GYL T¶YL SCL XSFI S¶ jI ISTGL HFIT VG[T¶MGL pDZGL VFTZIS| FtDS V; Z T¶MGL ÒJG ; ¶TMOF 5Z HMUF D/TL GYLP

jI ISTGM 5|SFZ4 HFIT VG[pDZ (**AxBxC**) GL VFTZIS| FtDS V; ZG\ 'F' D¶I **1.43** 5F%T YI \ K¶ T[56 **0.05** S1FFV[; FY'S GYL4 T¶YL SCL XSFI S¶ jI ISTGM 5|SFZ4 HFIT VG[pDZGL VFTZIS| FtDS V; Z T¶MGL ÒJG ; ¶TMOF 5Z YTL GYLP

4.2.2.9 jI ISTGM 5|SFZ4 HFIT VG[pDZGF ; NE'D\ DGMJ{7FIGS ; }BFSFZLG\ 38S VftD ; \ D

2x2x3 0§8MZI , I MHGF V\TU" jI ISTGM 5§FZ4 HFIT VG[pDZ VF +6[:JT+ 5IZJtI MGL cVFtD ; V Dc 5Z DpI VG[VFTZIS|I FtDS V; ZMYFI K[S|SD T[HF6JF DF8[I+DFUL" IJRZ6 5yYSZ6 5wWIT äFZF 4 XjI ptS<5GF (S|D GP 37 YL 40) GL RSF; 6L DF8['F' DkIMXMMJFDF\ VFjI FCTFP VF ; NE'DF\ D/[IJIJ3 VFSOFSLI IJUTM SM8S GP 4.32, 4.33 VG[4.34 DF\ZH}SZJFDF\ VFJL KP

SM8S GP 4.32

0§8MZI , I MHGF V\TU" IJIJW H\Y MGL DGMJ{7FIGS ; }BFSFZLG\ 38S VFtD ; V DGF\5F%TFSMGF\DWI SM TYF 5|DF6 IJR, GP **2x2x3** 0§8MZI , I MHGF (N=480)

	A₁ I MUS jI ISTVM n = 240		A₂ I AGI MUS jI ISTVM n = 240	
	B₁	B₂	B₁	B₂
pDZ	:+LVM	5]-QFM	:+LVM	5]-QFM
	120	120	120	120
C₁ 21 YL 35 JQF"	n=40	n=40	n=40	n=40
	M=1.18	M=1.30	M=0.78	M=0.93
	S.D.=0.70	S.D.=0.64	S.D.=0.72	S.D.=0.82

C₂ 36 YL 50 JQF"	n=40	n=40	n=40	n=40
	M=1.15	M=1.23	M=0.85	M=0.6
	S.D.=0.68	S.D.=0.79	S.D.=0.67	S.D.=0.71
C₃ 51 & T[YL JW] JQF"	n=40	n=40	n=40	n=40
	M=1.45	M=1.20	M=0.70	M=0.83
	S.D.=0.63	S.D.=0.66	S.D.=0.75	S.D.=0.81

SM8S GP 4.33

ji ISTGM 5|SFZ4 HFIT VG[pDZGF ; NE'DF\ DGMJ(7FIGS ; |BFSFZLG\ 38S
VFtD ; V D VUJGF ANOVA GM ; FZFX
2x2x3 0|S8MZI , I MHGF (N=480)

Variable	df	S.S.	MASSQ	F	Sig. level
A sjI ISTGM 5 SFZf	1	23.434	23.434	44.30	0.01
B sHFITf	1	6.137	6.137	0.12	NS
C spDZf	1	0.402	0.402	0.76	NS
AxB	1	9.744	9.744	0.18	NS
AxC	1	1.803	1.803	3.408	0.05
BxC	1	0.831	0.831	1.57	NS
AxBxC	1	2.971	2.971	0.01	NS
W.S.S.	471	249.1777	0.529		
Total	478	772.000			

SM8S GP 4.34
 HJYML DGMU{7FIGS ; JBSFZLG}38S VFtD; V DGF\DWI SM TYF
 DWI SM JrR[GF TOFJT

:JT+ 5IZJtIM	S1FFVM	; bIF	DwI S	DwI SM JrR[GM TOFJT
jI ISTGM 5\$FZ (A)	A ₁ IMUS jI ISTVM	240	1.35	0.27
	A ₂ IAGIMUS jI ISTVM	240	0.95	
HFIT (B)	B ₁ :+LVM	240	1.29	0.03
	B ₂ 5]-QFM	240	1.02	
pDZ (C)	C ₁ 21 YL 35 JQF"	160	1.45	1/2 = 0.49
	C ₂ 36 YL 50 JQF"	160	0.96	1/3 = 0.4
	C ₃ 51 & T[YL JW] JQF"	160	1.05	2/3 = 0.09

4.2.2.9.1 jI ISTGM 5\$FZ VG[T[VMDFA DGMU{7FIGS ; JBSFZLG}38S
 VFtD ; V DP

VCL\VFtD ; V D äZFZ jI IST 5MTFG\ ÖJG NZdI FG H[SM. 5IZI: YITDA D]SFI
 K[T[G[DF8[jI IST 5MTFGL HFTG[S[GXLAG[HJFANFZ U6[K[T[VUJGL DFICTL
 p5, aW YFI KP 5]:TJT ; XMMG VwI I GDF\jI ISTGF\VFtD; V D 5Z jI ISTGF
 5\$FZGL sIMUS VG[IAGIMUS jI ISTVM f V; Z YFI K[S[S]D T[HF6JGF\VFEXI YL
 VFSOFXF: +LI 'F'S; MBL äZFZ GLR[NXF]J, X]I ptS<5GFGL RSF; 6LSZJFDF
 VFJL CTLP

X]I ptS<5GF GP **37**. IMUS VG[IAGIMUS jI ISTVMGF VFtD; V DGF
 DGMU{7FIGS ; JBSFZLG}38SGF\5F%TF\$MGF DwI SM
 JrR[SM. ; FYS TOFJT GYLP

SM8S GP 4.33 G\ IGZL1F6 SZTF H6FI K[S] jI ISTGF\5\$FZGF; NE'DF\

TVMGF VftD; V D DF8[G] 'F' D}I **44.30** 5F%T YI] K# H[**0.01** S1FFV[; FYS K#
 T]YL p5ZMST X}I ptS<5GF6M VI:JSFZ SZJFDF\ VFJ[KP SM8S GP **4.34** G] IGZL1F6
 SZTF H6FI K[S# I MUS jI ISTVMGF VftD ; V DGF\5F%TF\$SMGM Dwl S **1.35** K#
 HIFZ[IAGI MUS jI ISTVMGF\ VftD; V DGF\5F%TF\$SMGM Dwl S **0.95** KP T]DGL JrR[GM
 TOFJT **0.40** HMJF D/[KP Dwl SM JrR[GM TOFJT :5Q856[; RJ[K[S# I MUS
 jI ISTVMDF\IAGI MUS jI ISTVM SZTF JWFZ[5]DF6DF\ VftD; V D HMJF D/[KP VIC\
 5IZ6FDG]; VEIJT SFZ6 VF5TF SCL XSFI S# IJIJW I MJ IS| FVM HJL S# wI FG4
 5f6FI FD JUZ[IGI IDT SZJFYL VftD; V DDF\ JWFZM YTM CMI T]J AGL XS[T]YL
 SNFR IAGI MUS jI ISTVM SZTF I MUS jI ISTVMDF\ VftD ; V D 5DF6 JWFZ[HMJF
 D?IMCMI XSP

4.2.2.9.2 jI ISTGL HFIT VG[T]MDFADGMJ{7FIGS ;]BFSFZLG] 38S VftD
 ; V DP

5]:T]T VwI I GDF\ :+LVM VG[5]-QFMGF\ VftD; V D JrR[SM. ; FYS TOFJT
 HMJF D/[K[S[SD T[HF6JFGF VFXI YL 'F' S; MBL äFZF GLR[D]HA X}I ptS<5GFGL
 RSF; 6L SZJFDF\ VFJL CTLP

X}I ptS<5GF GP **38.** :+LVM VG[5]-QFMGF VftD; V DGF\ DGMJ{7FIGS
 ;]BFSFZLGF 38SGF\5F%TF\$SMGF Dwl SM JrR[SM.
 ; FYS TOFJT GYLP

SM8S GP **4.33** G] IGZL1F6 SZTF H6FI K[S# HFITGF; NE'DF\jI ISTVMGF
 VftD; V DG] 'F' D}I **0.12** 5F%T YI] K# H[**0.05** S1FFV[; FYS GYL4 SM8S GP **4.34**
 G] IGZL1F6 SZTF H6FI K[S# :+LVMGF\ VftD; V DGF\5F%TF\$SMGM Dwl S **1.29** K[
 VG[5]-QFMGF\ VftD ; V DGF\5F%TF\$SMGM Dwl S **1.02** K# AgG[GF Dwl SM JrR[**0.27**
 H# , M TOFJT HMJF D/[K# T[**0.05** S1FFV[; FYS GYLP 8]SDF\ 5IZ6FDM 5ZYL SCL

XSFI S# : +LVM VG[5]-QFMGF VftD; V DGF\5F%TFSMGF DwI SM JrR[SM. ; FY'S TOFJT GYLP

4.2.2.9.3 jI ISTVMGL pDZGF; NE'DF\ DGMJ{7FIGS ; }BFSFZLG\38S VftD ; V DP

jI ISTGF VftD ; TMDF 5Z T\VMGL pDZ (**21** YL **35** JQF⁴ **36** YL **50** JQF⁴ **51** & T\YL JW] JQFF SM. V; Z SZ[K[S[S]D T[HF6JF DF8['F' S; NBL äZF GLR[NXF"J], X]I ptS<5GFGL RSF; 6L SZJFDA VEFJL CTLP

X]I ptS<5GF GP **39**. H]NLvH]NL pDZ 3ZFJTL jI ISTVMGF VftD; V DGF\ DGMJ{7FIGS ; }BFSFZLGF\38SGF\5F%TFSMGF DwI SM JrR[SM. ; FY'S TOFJT GYLP

SM8S GP **4.33** G\ IGZL1F6 SZTF H6FI K[S# jI ISTVMGL pDZGF ; NE'DF\ T\VMGF VftD; V DG\ 'F' D<I **0.76** 5F%T YI\ K# H[**0.05** S1FFV[; FY'S GYLP T\YL X]I ptS<5GFGM VI: JSEZ SZJFDA VEFJ[KP SM8S GP **4.34** G\ IGZL1F6 SZTF H6FI K[S# C₁ Vß, [S[**21** YL **35** JQF" ; }MLGL pDZ 3ZFJTF jI ISTVMGF VftD ; V DGF\ 5F%TFSMGM DwI S **1.45** K# **36** YL **50** JQF" ; }MLGL pDZ 3ZFJTF jI ISTVMGF VftD ; V DGF\5F%TFSMGM DwI S **0.96** K# T[DH **51** JQF" VG[T\YL J3FZ[pDZ 3ZFJTF jI ISTVMGF VftD; V DGF\ 5F%TFSMGM DwI S **1.05** K# **21** YL **35** JQF" VG[**36** YL **50** JQF" ; }MLGL pDZ 3ZFJTF jI ISTVMGF VftD; V DGF\ DwI SM JrR[**0.49** Hß, M TOFJT HMJF D/[KP **21** YL **35** JQF" TYF **51** & T\YL JWFZ[pDZ WZFJTL jI ISTVMGF VftD ; V DGF DwI SM JrR[**0.16** Hß, M TOFJT HMJF D/[KP **36** YL **50** JQF" TYF **51** JQF" VG[T\YL JWFZ[pDZ WZFJTL jI ISTVMGF VftD ; V DGF DwI SM JrR[**0.09** Hß, M TOFJT HMJF D/[KP DwI SM JrR[GF TOFJTM5ZYL SCL XSFI S[H]NLvH]NL pDZ WZFJTL jI ISTVMGF VftD ; V DGF 5F%TFSMGF DwI SM JrR[SM. ; FY'S TOFJT HMJF D/TM

GYLP

4.2.2.9.4 jI ISTGM 5|SFZ4 HFIT VG[pDZGL VFTZIS|I FGL DGMU{7FIGS ;]BFSFZLG\38S VftD; \ D 5Z V; ZP

jI ISTGM 5|SFZ T\VMGL HFIT VG[H\NLvH\NL pDZGL +6 S1FFVM\ VF +6| :JT\+ 5IZJtI MGL D\I V; Z p5ZFT +6[5IZJtI MGL 5Z:5Z VFTZIS|I FGL T\VMGF VftD ; \ D 5Z S\JL V; Z YFI K[T[HF6JF DF8['F' S; MBL äFZF GLR[NXF'J], X\jI ptS<5GFGL RSF; 6L SZJFDF\VFJL CTLP

X\jI ptS<5GF GP **40.** jI ISTGM 5|SFZ4 HFIT VG[pDZGL VFTZIS|I FGL ; FY'S V; Z T\VMGF\ DGMU{7FIGS ;]BFSFZLGF 38S VftD ; \ D 5Z YTL GYLP

IJIJ3 :TZGL VFTZIS|I FtDS V; ZM HF6JF DF8[I+DFUL'I IJRZ6 5yYSZ6 SZTF jI ISTGM 5|SFZ VG[HFIT (**AxB**), jI ISTGM 5|SFZ VG[pDZ (**AxC**), HFIT VG[pDZ (**BxC**), jI ISTGM 5|SFZ4 HFIT VG[pDZ (**AxBxC**) V\ D S], RFZ VFTZIS|I FGL VftD ; \ D 5Z V; Z HF6JF DF8['F' D\I M XMMJFDF\VFjI F CTFP

SM8S GP **4.33** G\IGZL1F6 SZTF H6FI K[S\ jI ISTGM 5|SFZ VG[HFIT (**AxB**) GL VFTZIS|I FtDS V; ZG\ 'F' D\I **0.18** 5F%T YI \K\ H[**0.05** S1FFV[; FY'S K\ T\YL SCL XSFI S\ jI ISTGM 5|SFZ VG[HFITGL VFTZIS|I FtDS V; Z T\VMGF VftD ; \ D 5Z HMUF D/TL GYLP

jI ISTGM 5|SFZ VG[T\VMGL pDZ (**AxC**) GL VFTZIS|I FtDS V; ZG\ 'F' D\I **3.418** 5F%T YI \K\ T[**0.05** S1FFV[; FY'S KP jI ISTGM 5|SFZ VG[pDZGL VFTZIS|I FGA VYW8G DF8[IJIJ3 H\YMGF\ DwI SMGL ; FY'STF XMMJF DF8[**L.S.D.** XMMJFDF\VFjI \ CTFP TG\ 5IZ6FD SM8S GP **4.35** DF\ZH] SZJFDF\VFjI \ KP

SM8S GP **4.35**

jI ISTGM 5|SFZ VG[pDZGL VFTZIS|I FG\ **L.S.C.** NXF'JT\ SM8S

SR. NO.	Pairs	Mean difference	Sig.
1	A ₁ C ₁ vs A ₁ C ₂	0.36	0.01
2	A ₁ C ₁ vs A ₁ C ₃	0.21	0.05
3	A ₁ C ₁ vs A ₂ C ₁	0.18	0.05
4	A ₁ C ₁ vs A ₂ C ₂	0.83	0.01
5	A ₁ C ₃ vs A ₂ C ₃	0.77	0.01
6	A ₁ C ₂ vs A ₂ C ₁	0.18	0.05
7	A ₁ C ₂ vs A ₁ C ₃	0.15	NS
8	A ₁ C ₂ vs A ₂ C ₂	0.45	0.01
9	A ₂ C ₁ vs A ₂ C ₂	0.63	0.01
10	A ₂ C ₁ vs A ₂ C ₃	0.59	0.01

0.05 = 0.18

0.01 = 0.24

NS = Not Significant

SMQ8S GP 4.35 G\ IGZL1F6 SZTF H6FI K[S\ 21 YL 35 JQF'GL IAGI MUS
 jI ISTVM SZTF I MUS jI ISTVMDF\ VFtD ; \ DG\ 5\DF6 JW] HMF D/[KP 21 YL 35
 JQF'GL I MUS jI ISTVMDF\ 51 VG[TYL J3] JQF'GL jI ISTVM SZTF VFtD; \ D JWFZ[
 HMF D/[K\ 36 YL 50 JQF'GL IAGI MUS jI ISTVM SZTF 21 YL 35 JQF'GL I MUS
 jI ISTVMDF\ VFtD; \ D JWFZ[5\DF6DF\ HMF D/[KP 51 VG[TYL JW] pDZGL I MUS
 jI ISTVMDF\ TH pDZGL IAGI MUS jI ISTVM SZTF VFtD; \ D JWFZ[5\DF6DF\ HMF
 D/[KP 36 YL 50 JQF'GL I MUS jI ISTVM SZTF 21 YL 35 JQF'GL IAGI MUS
 jI ISTVMDF\ VFtD; \ D JWFZ[HMF D/[KP 36 YL 50 JQF'GL I MUS jI ISTVMDF\ TH
 pDZGL IAGI MUS jI ISTVM SZTF VFtD ; \ D JWFZ[5\DF6DF\ HMF D/[KP 21 YL
 35 JQF'GL I MUS jI ISTVMDF\ 36 YL 50 JQF'GL IAGI MUS jI ISTVMDF\ VFtD ; \ D
 JWFZ[HMF D/[KP VF VFtZIS\ FVM VU[TFZ6 SF-TF SCL XSFI S[36 YL 50 JQF'GL
 IAGI MUS jI ISTVM ; FYL VMKM VFtD ; \ D WZFJ[KP

jI ISTGL HFIT VG[pDZ (BxC) GL VFTZIS| FtDS V; ZG\ 'F' DkI 1.57
5F%T YI \ KP T[0.05 S1FFV[; FY'S GYL4 T\YL SCL XSFI S# jI ISTGL HFIT VG[pDZGL
VFTZIS| FtDS V; Z VftD ; V D 5Z HMUF D/TL GYLP

jI ISTGM 5\$FZ4 HFIT VG[pDZ (AxBxC) GL VFTZIS| FtDS V; ZG\ 'F' DkI
0.01 5F%T YI \ K# T[0.05 S1FFV[; FY'S GYL4 T\YL SCL XSFI S# jI ISTGM 5\$FZ4
HFIT VG[pDZGL VFTZIS| FtDS V; Z VftD ; V D 5Z YTL HMUF D/TL GYLP

p5ZMST RRF"5ZYL SCL XSFI S# jI ISTGM 5\$FZ VG[pDZGL VFTZIS| FtDS
V; Z T\MGF\ VftD ; V D 5Z YTL HMUF D/[K# HI FZ[jI ISTGM 5\$FZ VG[HFIT4
jI ISTGL HFIT VG[pDZ TYF jI ISTGM 5\$FZ4 HFIT VG[pDZGL VFTZIS| FtDS V; Z
T\MGF\ VftD ; V D 5Z HMUF D/TL GYLP

4.2.2.10 jI ISTGM 5\$FZ4 HFIT VG[pDZGF ; NE'DFADGMU{7FIGS ; }BFSFZLG\ 38S TF6P

2x2x3 O\$8MZI , I MHGF V\TU" jI ISTGM 5\$FZ4 HFIT VG[pDZ VF +6[
:JT+ 5IZJtI MGL cTF6c 5Z DpI VG[VFTZIS| FtDS V; Z YFI K[S[S\D T[HF6JF
DF8[I+DFUL" IJRZ6 5yYSZ6 5wWIT äZF 4 XjI ptS<5GF (S\D GP 41 YL 44) GL
RSF; 6L DF8['F' DkI MXMWJFDF\ VFjI F CTFP VF ; NE'DF\ D/[IJIJ3 VFSOFSLI
IJUTM SM8S GP 4.36, 4.37 VG[4.38 DF\ZH}SZJFDF\ VFJL KP

SM8S GP 4.36

O\$8MZI , I MHGF V\TU" IJIJW HYMGL DGMU{7FIGS ; }BFSFZLG\ 38S
TF6GF\ 5F%TF\$MGE DwI SM TYF 5\DF6 IJR, GP
2x2x3 O\$8MZI , I MHGF (N=480)

	A₁ I MUS j I ISTVM n = 240		A₂ I AGI MUS j I ISTVM n = 240	
	B₁	B₂	B₁	B₂
pDZ	: +LVM	5]-QFM	: +LVM	5]-QFM
	120	120	120	120
	n=40	n=40	n=40	n=40
C₁ 21 YL 35 JQF"	M=1.72	M=1.68	M=1.40	M=1.28
	S.D.=0.53	S.D.=0.61	S.D.=0.69	S.D.=0.71
	n=40	n=40	n=40	n=40
C₂ 36 YL 50 JQF"	M=1.70	M=1.80	M=1.23	M=1.33
	S.D.=0.42	S.D.=0.40	S.D.=0.72	S.D.=0.61
	n=40	n=40	n=40	n=40
C₃ 51 & T[YL JW] JQF"	M=1.78	M=1.54	M=1.33	M=1.2
	S.D.=0.42	S.D.=0.67	S.D.=0.72	S.D.=0.64
	n=40	n=40	n=40	n=40

SM8S GP 4.37

j I ISTGM 5]SFZ4 HFIT VG[pDZGF ; NE'DF\ DGMJ{7FIGS
;]BFSFZLG\ 38S TF6 VUJGF ANOVA GM; FZFX
2x2x3 0]8MZI , I MHGF (N=480)

Variable	df	S.S.	MASSQ	F	Sig. level
A sj I ISTGM 5]SFZf	1	9.326	9.326	53.03	0.01
B sHFITf	1	2.745	2.745	.085	NS
C spDZf	1	1.434	1.434	2.96	NS
AxB	1	1.349	1.349	0.00	NS
AxC	1	1.349	1.349	0.00	NS
BxC	1	6.076	6.076	0.17	NS

AxBxC	1	0.254	0.254	0.70	NS
W.S.S.	470		0.364		
Total	477				

SM8S GP 4.38

H\YMG\ DGMJ{7FIGS ; }BFSFZLG\ 38S TF6GF\ Dwl SM TYF Dwl SM JrR\GF\ TOFJT

:JT+ 5IZJtIM	S1FFVM	; bIF	Dwl S	Dwl SM JrR\GM TOFJT
jI ISTGM 5\SFZ (A)	A ₁ IMUS jI ISTVM	240	1.70	0.40
	A ₂ IAGI MUS jI ISTVM	240	1.30	
HFIT (B)	B ₁ : +LVM	240	1.53	0.06
	B ₂ 5\QFM	240	1.47	
pDZ (C)	C ₁ 21 YL 35 JQF"	160	1.52	1/2 = 0
	C ₂ 36 YL 50 JQF"	160	1.52	1/3 = 0.06
	C ₃ 51 & T\YL JW\JQF"	160	1.46	2/3 = 0.06

4.2.2.10.1 jI ISTGM 5\SFZ VG\ T\MDF\ DGMJ{7FIGS ; }BFSFZLG\ 38S TF6P

VC\TF6 äfZF jI IST JTDFG 5IZI:YITDAD\hJ6EZL 5IZI:YITDA K\ S\ S\ m VG\ jI IST U\ ; FHGS S\ IRIOI F56FGM : JEFJ WZFJ\ K\ S\ S\ m T\ VU\GL DFICTL D/[KP 5\ T\T Vwl I GDF\ jI ISTGL TF6 5Z jI ISTGF\ 5\SFZGL sI MUS VG\ IAGI MUS jI ISTVM f V; Z YFI K\ S\ S\ T\ HF6JGF\ VFXI YL VFSOFXF: +LI 'F' S; MBL äfZF GLR\NXF"J\ X\jI ptS<5GFGL RSF; 6L SZJFDF\ VFJL CTLP

X\jI ptS<5GF GP **41**. I MUS VG\ IAGI MUS jI ISTVMGL TF6GF DGMJ{7FIGS ; }BFSFZLGF 38SGF 5F%TFSMGF Dwl SM JrR\ SM. ; FY'S TOFJT GYLP

SM08S GP 4.37 G\ IGZL1F6 SZTF H6FI K[S\ jI ISTGFA5\SFZGF\ ; NE'DFA
 T\VMGL TF6 DF8G\ 'F' D\I 53.03 5F%T YI\ K\ T[0.01 S1FFV[; FY'S K\ T\YL
 p5ZMST X\I ptS<5GFGM VI:JSFZ SZJFDF\VFJ[KP SM08S GP 4.38 G\IGZL1F6 SZTF
 H6FI K[S\ I MIUS jI ISTVMGL TF6GF\ 5F%TFSMGMDwI S 1.70 K\ HI FZ[IAGI MIUS
 jI ISTVMGL TF6GF\ 5F%TFSMGMDwI S 1.30 KP TDGL JrRGM TOFJT 0.40 H\, M HMUF
 D/[KP DwI SM JrRGM TOFJT :50856[; RJ[K[S\ IAGI MIUS jI ISTVMDFA I MIUS
 jI ISTVM SZTF TF6G\ 5DF6 JWFZ[HMUF D/[KP

VIC\5IZ6FDG\ ; VEIJT SFZ6 VF5TF SCL XSFI S\ I MIUS jI ISTVMIGI IDT
 ZLT[H[I MIUS 5[I]STVM SZ[K[T[jI ISTGFA DUHG[XFT SZL T\VMGL TF6DFA38FOM
 SZTF CMI T\A AGL XSP T\YL H SNFR I MUSDA IAGI MIUS jI ISTVM SZTF TF6G\
 5DF6 VMK\ HMUF D?I\ CMI TD AGL XSP ZMHZU\CFDGF VeI F; M 56 ATEJ[K[S\
 wI FGYL TF6DFA ; RS ZLT[38FOM HMUF D?I MCTMP

**4.2.2.10.2 jI ISTGL HFIT s: +LVM VG[5]-QFMF GF ; NE'EF\ DGMU{7FIGS
 ;]BFSFZLG\38S TF6P**

5: T]T VwI I GDF\ : +LVM VG[5]-QFMGL TF6 JrR[SM. ; FY'S TOFJT HMUF
 D/[K[S[SD T[HF6JFGF VFXI YL 'F' S; M8L äFZF GLR[D]HA X\I ptS<5GFGL
 RSF; 6L SZJFDF\VFJL CTLP

X\I ptS<5GF GP 42. : +LVM VG[5]-QFMGF TF6GF\ DGMU{7FIGS ;]BFSFZLGF
 38SGF 5F%TFSMGF DwI SM JrR[SM. ; FY'S TOFJT GYLP

SM08S GP 4.37 G\IGZL1F6 SZTF H6FI K[S\ HFITGF\ ; NE'DFA : +LVMGL TF6G\
 'F' D\I 0.08 5F%T YI\ K\ H[0.05 S1FFV[; FY'S GYL4 SM08S GP 4.38 G\IGZL1F6
 SZTF H6FI K[S\ : +LVMGL TF6GF\ 5F%TFSMGM DwI S 1.53 K[VG[5]-QFMGL TF6GF\

5F%TF\$MGM Dwl S **1.47** K# A#G#GF Dwl SM JrR[DF+ **0.06** H# , M VMKM TOFJT HMJF
 D/[K# 8)SDF 5IZ6FDM 5ZYL SCL XSFI S# : +LVM VG[5]-QFMGL TF6GF 5F%TF\$MGM
 Dwl SM JrR[SM. ; FY'S TOFJT GYLP T#L X#l ptS<5GFG[I YFJT ZFBJFDF V#J[K#
 VCL\5IZ6FDG#; #EIJT SFZ6 VF5TF SCL XSFI S# : +LVM VG[5]-QFMGL
 SFI 'E)DSF H#NlvH#N CMKF KTFANZ\$G[5MTFGF SFI 'DF T6FJGM VG#EJ SZJM 50TM
 CMI K# : +LVM[E, [U'IC6LGL H HJFANFZL GLEFJJFGL CMI VG[5]-QF H#L
 VYM5FH'GGL 5#IT G SZJFGL CMI KTF U'IC6LVMG[56 TF6GM VG#EJTM YTM H
 CMI T#)AGL XSP T#L H SNFR : +LVM VG[5]-QFMGL TF6 JrR[; FY'S TOFJT HMJF
 GIC D?I M CMI T#)AGL XSP

4.2.2.10.3 jI ISTV MGL pDZ VG[DGMU{7FIGS ; #BFSFZLG\38S TF6P

jI ISTVMGL TF6 5Z T#VMGL pDZGL (**21** YL **35** JQF# **36** YL **50** JQF# **51** &
 T#L JW] JQF# SM. V; Z SZ[K[S[SD T[HF6JF DF8['F' S; MBL äZF GLR[NXF#J,
 X#l ptS<5GFG[RSF; 6L SZJFDF V#JL CTLP

X#l ptS<5GF GP **43.** H#NlvH#N pDZ 3ZFJTL jI ISTVMGL TF6GF DGMU{7FIGS
 ; #BFSFZLGF 38SGF 5F%TF\$MGM Dwl SM JrR[SM. ; FY'S
 TOFJT GYLP

SM8S GP **4.37** G#IGZL1F6 SZTF H6FI K[S# jI ISTVMGL pDZGF ; NE'DF
 T#VMGL TF6 DF8[G# 'F' D#I **2.96** 5F%T YI) K# T[**0.05** S1FFV[; FY'S GYLP T#L X#l
 ptS<5GFG[I YFJT ZFBJFDF V#J[K# SM8S GP **4.38** G#IGZL1F6 SZTF H6FI K[S#
21 YL **35** JQF# ; #MLGL pDZ 3ZFJTF jI ISTVMGL TF6GF 5F%TF\$MGM Dwl S **1.52** K# **36**
 YL **50** JQF# ; #MLGL pDZ 3ZFJTL jI ISTVMGL TF6GF 5F%TF\$MGM Dwl S **1.52** K# VG[**51**
 JQF# VG[T#L J3FZ[pDZ 3ZFJTF jI ISTVMGL TF6GF 5F%TF\$MGM Dwl S **1.46** K# pDZ
 +6[H#YMGF Dwl SM JrR[GM TOFJT sHY# V# VG[A# H# V# VG[+6 TYF H#Y

A[VG[+6f VG\$D[**0.00, 0.06** VG[**0.06** K[TOFJTM5ZYL :5Q8 HM. XSFI K[S#
HjNlvHjNl pDZ WZFJTL jI ISTVMGL TF6GF5F%TF\$MGE DwI SM JrR[SM. ; FY'S
TOFJT HMUF D/TMGYLP

4.2.2.10.4 jI ISTGM 5\$FZ4 HFIT VG[pDZGL VFVZIS|I FGL DGMU{7FIGS
;]BFSFZLG\38S TF6 5Z V; ZP

jI ISTGM 5\$FZ TVMGL HFIT VG[HjNlvHjNl pDZGL +6 S1FFVM# VF +6[
:JT+ 5IZJtI MGL DpI V; Z p5ZFT +6[5IZJtI MGL 5Z:5Z VFVZIS|I FGL TVMGL
TF6 5Z S|UL V; Z YFI K[T[HF6JF DF8['F' S; MBL äFZF GLR[NXF'J[, XjI
ptS<5GFGL RSF; 6L SZJFDF\VFJL CTLP

XjI ptS<5GF GP **44.** jI ISTGM 5\$FZ4 HFIT VG[pDZGL VFVZIS|I FGL ; FY'S
V; Z TVMGL DGMU{7FIGS ;]BFSFZLGF 38S TF6 5Z
YTL GYLP

IJIJ3 :TZGL VFVZIS|I FtDS V; ZM HF6JF DF8[I+DFUL" IJRZ6 5yYSZ6
SZTF jI ISTGM 5\$FZ VG[HFIT (**AxB**), jI ISTGM 5\$FZ VG[pDZ (**AxC**), HFIT VG[
pDZ (**BxC**), jI ISTGM 5\$FZ4 HFIT VG[pDZ (**AxBxC**) V|D S], RFZ VFVZIS|I FVMGL
TF6 5Z V; Z HF6JF DF8['F' D}I M XMWJFDF\VFjI F CTFP

SMQ8S GP **4.37** G\IGZL1F6 SZTF H6FI K[S# jI ISTGM 5\$FZ VG[HFIT (**AxB**)
GL VFVZIS|I FG\ 'F' D}I **0.00** 5F%T YI \ K# H[**0.05** S1FFV[; FY'S GYLP T|YL SCL
XSFI S# jI ISTGM 5\$FZ VG[HFITGL VFVZIS|I FtDS V; Z TVMGL TF6 5Z HMUF
D/TL GYLP

jI ISTGM 5\$FZ VG[TVMGL pDZ (**AxC**) GL VFVZIS|I FtDS V; ZG\ 'F' D}I
0.00 5F%T YI \ K# T[56 **0.05** S1FFV[; FY'S GYLP T|YL SCL XSFI S# jI ISTGM 5\$FZ

VG[T[MGL p'DZGL VFTZIS| ftds V; Z T[MGL TF6 5Z HMUF D/TL GYLP

jI ISTGL HFIT VG[pDZ (BxC) GL VFTZIS| ftds V; ZG\ 'F' DkI **0.17**
 5F%T YI\ K# T[56 **0.05** S1FFV[; FY'S GYL4 TYL SCL XSFI S# jI ISTGL HFIT VG[
 p'DZGL VFTZIS| ftds V; Z T[MGL TF6 5Z YTL GYLP

jI ISTGM 5\$FZ4 HFIT VG[pDZ (AxBxC) GL VFTZIS| ftds V; ZG\ 'F' DkI
0.70 5F%T YI\ K# T[56 **0.05** S1FFV[; FY'S GYLP TYL SCL XSFI S# jI ISTGM 5\$FZ4
 HFIT VG[p'DZGL VFTZIS| ftds V; Z T[MGL TF6 5Z YTL GYL4 TYL X#I
 ptS<5GF[I YFJT ZFBJFDF\ VFJ[KP

4.2.2.11 jI ISTGM 5\$FZ4 HFIT VG[pDZGF; NE'DFADGMU{7FIGS
 ; }BFSFZLG\ 38S; FZF56P

2x2x3 O\$8MZI, I MHGF V\TU'T jI ISTGM 5\$FZ4 HFIT VG[pDZ VF +6[
 :JT+ 5IZJtI MGL ÖJG; \TMDF 5Z D#I VG[VFTZIS| ftds V; ZMYFI K[S[SD T[
 HF6JF DF8[I+DFUL' IJRZ6 5yYSZ6 5wWIT äfZf 4 X#I ptS<5GF (S#D GP **45** YL

48) GL RSF; 6L DF8['F' DkI MXMWJFDF\ VFjI FCTFP VF; NE'DF\ D/[IJIJ3
 VFSOFSLI IJUTM SM8S GP **4.39, 4.40** VG[**4.41** DF\ZH}SZJFDF\ VFJL KP

SM8S GP 4.39

O\$8MZI, I MHGF V\TU'T IJIJW HYMGF; FZF56FGF\ DGMU{7FIGS; }BFSFZLGF\
 38SGF\ 5F%TF\$MGE DwI SM TYF 5|DF6 IJR, GP
2x2x3 O\$8MZI, I MHGF (**N=480**)

	A₁ I MUS jI ISTVM n = 240		A₂ IAGI MUS jI ISTVM n = 240	
	B₁	B₂	B₁	B₂

	: +LVM	5]-QFM	: +LVM	5]-QFM
	120	120	120	120
C₁ 21 YL 35 JQF"	n=40	n=40	n=40	n=40
	M=1.50	M=1.77	M=1.40	M=1.33
	S.D.=0.63	S.D.=0.47	S.D.=0.58	S.D.=0.77
C₂ 36 YL 50 JQF"	n=40	n=40	n=40	n=40
	M=1.58	M=1.55	M=1.1	M=1.23
	S.D.=0.70	S.D.=0.63	S.D.=0.70	S.D.=0.61
C₃ 51 & T[YL JW] JQF"	n=40	n=40	n=40	n=40
	M=1.70	M=1.35	M=1.25	M=1.13
	S.D.=0.46	S.D.=0.73	S.D.=0.66	S.D.=0.70

SM8S GP 4.40

jI ISTGM 5]SFZ4 HFIT VG[pDZGF ; NE'DF\ DGMU{7FIGS
;]BFSFZLG\ 38S ; FZF56F VUJGF **ANOVA** GM ; FZFX
2x2x3 Q]8MZI , I MHGF (N=480)

Variable	df	S.S.	MASSQ	F	Sig. level
A sjI ISTGM 5]SFZf	1	13.301	13.301	31.29	0.01
B sHFITf	1	9.375	9.375	0.02	NS
C spDZf	1	0.376	0.376	0.89	NS
AxB	1	5.104	5.104	0.12	NS
AxC	1	3.301	3.301	0.71	NS

BxC	1	0.459	0.459	1.08	NS
AxBxC	1	0.234	0.234	0.5	NS
W.S.S.	472	200.638	0.425		
Total	479	1165.00			

SM8S GP 4.41

HYMGL DGMJ{7FIGS ; }BFSFZLGF 38S ; FZF56FGF\DWI SM TYF DWI SM JrR\GF\TOFJT

:JT+ 5IZJtIM	S1FFVM	; bIF	DwI S	DwI SM JrR\GM TOFJT
jI ISTGM 5 SFZ (A)	A ₁ IMUS jI ISTVM	240	1.58	0.34
	A ₂ IAGIMUS jI ISTVM	240	1.24	
HFIT (B)	B ₁ :+LVM	240	1.42	0.03
	B ₂ 5]-QFM	240	1.39	
pDZ (C)	C ₁ 21 YL 35 JQF"	160	1.50	1/2 = 0.13
	C ₂ 36 YL 50 JQF"	160	1.37	1/3 = 0.14
	C ₃ 51 & T\YL JW\JQF"	160	1.36	2/3 = 0.01

4.2.2.11.1 jI ISTGM 5|SFZ VG\ T\MDF\DGMJ{7FIGS ; }BFSFZLGM\38S ; FZF56P

VCL\; FZF56FGF\38S äFZF jI IST JTDFG ; DI DF\T\GL 5|JITVM Sß, L ; FZL ZLT\5FZ 5F0\K\T\DH jI ISTGF\5M\FGF : JF:yI VUJL DFICTL 5F%T YFI KP 5|:TJ VwI I GDF\jI ISTGF\ ; FZF56F 5Z jI ISTGF\5|SFZGL sIMUS VG\ IAGIMUS jI ISTVMF V; Z YFI K\S\SD T\HF6JFGF VFXI YL VFSOFXF: +LI 'F' S; MBL äFZF GLR\NXF\J\ XjI ptS<5GFGL RSF; 6L SZJFDF\ VFJL CTLP

XjI ptS<5GF **GP45**. IMUS VG\ IAGIMUS jI ISTVMGF ; FZF56FGF DGMV J{7FIGS ; }BFSFZLGF 38SGF 5F%TFSMGF DWI SM JrR\ SM. ; FYS TOFJT GYLP

SMD8S GP 4.40 G\IGZL1F6 SZTF H6FI K[S\ jI ISTGFA5SFZGFA; NE'DFA TVMGF ; FZF56F DF8G\ 'F' D\I 31.29 5F%T YI\ K\ T[0.01 S1FFV[; FY'S K\ TYL p5ZMST X\I ptS<5GF GM VI: JSFZ SZJFDA VFJ[KP SMD8S GP 4.41 G\IGZL1F6 SZTF H6FI K[S\ I MUS jI ISTVMGFA; FZF56FGFA5F%TF SMGM Dwl S 1.58 K\ HI FZ[IAGI MUS jI ISTVMGFA; FZF56FGFA5F%TF SMGM Dwl S 1.24 KP TDGL JrRGM TOFJT 0.34 HMJF D/[KP Dwl SM JrRGM TOFJT :5Q856[; RJ[K[S\ I MUS jI ISTVMDFAIAGI MUS jI ISTVM SZTF JW FZ[5DF6DFA; FZF56] HMJF D/[KP

VIC\5IZ6FDG\; VEIJT SFZ6 VF5TF SCL XSFI S\ I MUS OJGX{ LYL jI ISTGL IJRFZ X\wW YTL CMI T\] AGL XS\ TYL jI IST 5MTFGL 5\ITVM VgI IAGI MUS jI ISTVM SZTF; FZL ZLT[SZL XSTF CMI T\] CMI XSP p5ZFT JT'DFG :5WFtDS 5IZI:YITDFA I MU XFZLIZS VG[DFGI; S :JF:yI HF/JJFDA DNN~5 Y. XSP VF AWFGL V; Z ; FZF56F 5Z YTL CMI T\] AGL XS\ TYL H SNFR I MUS jI ISTVMDFAIAGI MUS jI ISTVM SZTF JW FZ[; FZF56\ HMJF D?I\ CMI TD CM. XSP 4.2.2.11.2 jI ISTGL HFIT VG[TVMDFA DGMJ{7FIGS ;]BFSFZLG\ 3 8S ; FZF56P

5]:TJT VwI I GDA :+LVM VG[5]-QFMGF ; FZF56FDA SM. ; FY'S TOFJT HMJF D/[K[S[SD T[HF6JFGF VFXI YL 'F' S; MBL äZFZ GLR[D]HA X\I ptS<5GFGL RSF; 6L SZJFDA VFJL CTLP

X\I ptS<5GF GP 46. :+LVM VG[5]-QFMGF ; FZF56FGF DGMJ{7FIGS ;]BFSFZLGF 38SGF 5F%TF SMGF Dwl SM JrR[SM. ; FY'S TOFJT GYLP

SMD8S GP 4.40 G\IGZL1F6 SZTF H6FI K[S\ HFITGFA; NE'DFA jI ISTVMGFA ; FZF56FG\ 'F' D\I 0.02 5F%T YI\ K\ T[0.05 S1FFV[; FY'S GYL4 SMD8S GP 4.41 G\ IGZL1F6 SZTF H6FI K[S\ :+LVMGF ; FZF56FGFA5F%TF SMGM Dwl S 1.42 K[VG[5]-QFMGF ; FZF56FGFA5F%TF SMGM Dwl S 1.39 K\ AgG\GF Dwl SM JrR[DF+ 0.03 H\B, M VMKM TOFJT HMJF D/[K\ 8SDFA 5IZ6FDM 5ZYL SCL XSFI S\ :+LVM VG[5]-QFMGF

; FZF56FGF\5F%TF\$MGE DwI SM JrR[SM. ; FY'S TOFJT GYLP T[YL X}I ptS<5GFG[I YFJT ZFBJFDA VFJ[KP

VCL\ 5IZ6FDG\ ; VEIJT SFZ6 VF5TF SCL XSFI S# : +LVM VG[5]-QFM AgG[5MT5MTFGL HJFANFZL sV\$; ZBL ZLT[f ; FZL ZLT[H IGEFJTf CMI TP\ CMI XS# T[YL H SNFR : +LVM VG[5]-QFMGF ; FZF56F JrR[; FY'S TOFJT HMUF GIC D?I M CMI P

4.2.2.11.3 jI ISTGL p'DZGF ; NE'DF\ DGMJ{7FIGS ; }BFSFZLG\ 38S ; FZF56P

jI ISTGF\OJG ; TMDf 5Z T\VMGL p'DZGL (**21** YL **35** JOF# **36** YL **50** JOF# **51** & T[YL JWFZ[JOF# SM. V; Z SZ[K[S[SD T[HF6JF DF8['F' S; NBL äZFZ GLR[NXF'J, X}I ptS<5GFG[RSF; 6L SZJFDA VFJL CTLP

X}I ptS<5GF GP **47.** HJNLvHJNL p'DZ 3ZFJTL jI ISTVMGF ; FZF56FGF\ DGMJ{7FIGS ; }BFSFZLGF 38SGF\5F%TF\$MGE DwI SM JrR[SM. ; FY'S TOFJT GYLP

SM8S GP **4.40** G\ IGZL1F6 SZTF H6FI K[S# jI ISTVMGL p'DZGF ; NE'DF\ T\VMGF ; FZF56FG\ 'F' D}I **0.89** 5F%T YI \ K# T[**0.05** S1FFV[; FY'S GYLP T[YL X}I ptS<5GFGM VI: JSFZ SZJFDA VFJ[KP SM8S GP **4.41** G\ IGZL1F6 SZTF H6FI K[S# **21** YL **35** JOF" ; }MLGL p'DZ 3ZFJTf jI ISTVMGF ; FZF56FGF\5F%TF\$MGM DwI S **1.50** K# TPDH **51** JOF" VG[T[YL J3FZ[p'DZ 3ZFJTf jI ISTVMGF ; FZF56FGF\5F%TF\$MGM DwI S **1.36** K# **21** YL **35** JOF" VG[**36** YL **50** JOF" ; }MLGL p'DZ WZFJTf jI ISTVMGF ; FZF56FGF\5F%TF\$MGE DwI SM JrR[**0.13** H# , MT HMUF D/[KP **21** YL **35** JOF" TYF **51** VG[T[YL JWFZ[JOF" 3ZFJTL jI ISTVMGF ; FZF56FGF DwI SM JrR[**0.14** H# , M TOFJT HMUF D/[KP **36** YL **50** JOF" TYF **51** JOF" VG[T[YL JWFZ[JOF" 3ZFJTL jI ISTVMGF ; FZF56FGF DwI SM JrR[**0.01** H# , M TOFJT HMUF D/[KP DwI SM JrR[GATOFJTM

5ZYL SCL XSFI S# HNLvHNL pDZ WZFJTL jI ISTVMGF; FZF56FGF\5F%TF'SMGF
Dwl SMJrR[SM. ; FY'S TOFJT HMUF D/TM GYLP

4.2.2.11.4 jI ISTGM 5\$FZ4 HFIT VG[pDZGL VFTZIS| FGL DGMU{7FIGS
;]BFSFZLG\38S ; FZF56F 5Z V; ZP

jI ISTGM 5\$FZ4 HFIT VG[HNLvHNL pDZGL +6 S1FFVM VF +6[:JT+
5IZJtIMGL Dbl V; Z p5ZFT +6[5IZJtIMGL 5Z:5Z VFTZIS| FGL T\VMGF
; FZF56F 5Z S\JL V; Z YFI K[T[HF6JF DF8['F' S; MBL äFZF GLR[NXF"J, XjI
ptS<5GFGL RSF; 6L SZJFDA VFJL CTLP

XjI ptS<5GF GP **48.** jI ISTGM 5\$FZ4 HFIT VG[pDZGL VFTZIS| FGL
DGMU{7FIGS ;]BFSFZLGF 38S ; FZF56F 5Z V; ZP

IJIJ3 :TZGL VFTZIS| FtDS V; ZM HF6JF DF8[I+DFUL" IJRZ6 5yYSZ6
SZTF jI ISTGM 5\$FZ VG[HFIT (**AxB**), jI ISTGM 5\$FZ VG[pDZ (**AxC**), HFIT VG[
pDZ (**AxC**), jI ISTGM 5\$FZ4 HFIT VG[pDZ (**AxBxC**) V[D S], RFZ VFTZIS| FGL
; FDFIHS VFWFZ 5Z V; Z HF6JF DF8['F' DkI M XMWJFDA VFjI F CTFP

SMQ8S GP **4.40** G\IGZL1F6 SZTF H6FI K[S# jI ISTGM 5\$FZ VG[HFIT (**AxB**)
GL VFTZIS| FtDS V; ZG\ 'F' DkI **0.12** 5F%T YI \K# H[**0.05** S1FFV[; FY'S GYLP
T\YL SCL XSFI S# jI ISTGM 5\$FZ VG[HFITGL VFTZIS| FtDS V; Z T\VMGF ; FZF56F
5Z YTL GYLP

jI ISTGM 5\$FZ VG[T\VMGL pDZ (**AxC**) GL VFTZIS| FtDS V; ZG\ 'F' DkI
0.11 5F%T YI \K# T[56 **0.05** S1FFV[; FY'S GYLP T\YL SCL XSFI S# jI ISTGM 5\$FZ
VG[T\VMGL pDZGL VFTZIS| FtDS V; Z T\VMGF ; FZF56F 5Z YTL GYLP

jI ISTGL HFIT VG[pDZ (**BxC**) GL VFTZIS| FtDS V; ZG\ 'F' DkI **1.08**
5F%T YI \K# T[56 **0.05** S1FFV[; FY'S GYL4 T\YL SCL XSFI S# jI ISTVMGL HFIT

VG[TVMGL p\|DZGL VFTZIS|I FtDS V; Z TVMGE ; FZF56F 5Z YTL GYLP

jI ISTVMGM 5|SFZ4 HFIT VG[pDZ (AxBxC) GL VFTZIS|I FG\ 'F' DkI **0.55**
 5F%T YI\K| T[56 **0.05** S1FFV[; FY'S GYLP T|L X|I ptS<5GF[I YFJT ZFBTF
 SCL XSFI S| jI ISTGM 5|SFZ4 HFIT VG[pDZGL VFTZIS|I FGL ; FY'S V; Z TVMGE
 ; FZF56F 5Z YTL GYLP

4.2.2.12 jI ISTGM 5|SFZ4 HFIT VG[pDZGF\ ; NE'DFADGMU{7FIGS
 ; |BFSFZLG\ 38S ; FDFgI V; ZSFZSTF

2x2x3 O|S8MZI , I MHGF V\TU" jI ISTGM 5|SFZ4 HFIT VG[pDZ VF
 +6[:JT+ 5IZJt|MGL ; FDFgI V; ZSFZSTF 5Z D|I VG[VFTZIS|I FtDS V; ZM
 YFI K[S|S|D T[HF6JF DF8[I+DFUL" IJRZ6 5yYSZ6 5wWIT äfZF 4 X|I ptS<5GF
 (S|D GP **49** YL **52**) GL RSF; 6L DF8['F' DkI M XMWJFDF VF|I F CTFP VF ; NE'DF
 D/, IJIJ3 VFSOFSLI IJUTM SM8S GP **4.42, 4.43** VG[**4.44** DF\ ZH} SZJFDF
 VFJL KP

SM8S GP 4.42

O|S8MZI , I MHGF V\TU" IJIJW H|MGL ; FDFgI V; ZSFZSTFGF\ DGMU{7FIGS
 ; |BFSFZLGF\ 38SGF\ 5F%TFSMGF DwI SM TYF 5|DF6 IJR, GMP
2x2x3 O|S8MZI , I MHGF (N=**480**)

	A₁ I MUS jI ISTVM n = 240		A₂ IAGI MUS jI ISTVM n = 240	
	B₁	B₂	B₁	B₂

	: +LVM	5]-QFM	: +LVM	5]-QFM
	120	120	120	120
C₁ 21 YL 35 JQF"	n=40	n=40	n=40	n=40
	M=1.63	M=1.73	M=1.58	M=1.3
	S.D.=0.53	S.D.=0.94	S.D.=0.54	S.D.=0.61
C₂ 36 YL 50 JQF"	n=40	n=40	n=40	n=40
	M=1.67	M=1.83	M=1.30	M=1.35
	S.D.=0.47	S.D.=0.38	S.D.=0.72	S.D.=0.53
C₃ 51 & T[YL JW] JQF"	n=40	n=40	n=40	n=40
	M=1.12	M=1.48	M=1.40	M=1.28
	S.D.=0.72	S.D.=0.67	S.D.=0.66	S.D.=0.71

SM8S GP 4.43

j I ISTGM 5]SFZ4 HFIT VG[pDZGF ; NE'DF\ DGMJ{7FIGS ;]BFSFZLG\ 38S
; FDFgl V; ZSFZSTF VUJGF ANOVA GM; FZFX
2x2x3 Q]8MZI , I MHGF (N=480)

Variable	df	S.S.	MASSQ	F	Sig. level
A sj I ISTGM 5]SFZf	1	10.838	10.838	31.77	0.01
B sHFITf	1	0	0	0	NS
C spDZf	1	1.67	1.67	3.127	NS
AxB	1	0.504	0.504	1.48	NS

AxC	1	3.750	3.750	0.11	NS
BxC	1	0.150	0.150	0.44	NS
AxBxC	1	1.204	1.204	2.53	NS
W.S.S.	472	161.025	0.341		
Total	479	1272.00			

SM8S GP 4.44

H}YMGF\ DGMU{7FIGS ; }BFSFZLGF 38S V; ZSFZSTFGF\ Dwl SM TYF
Dwl SM JrR\GF\ TOFJT

:JT+ 5IZJtIM	S1FFVM	; bIF	Dwl S	Dwl SM JrR\GM TOFJT
jI ISTGM5}SFZ (A)	A ₁ I MUS jI ISTVM	240	1.58	0.09
	A ₂ IAGI MUS jI ISTVM	240	1.49	
HFIT (B)	B ₁ :+LVM	240	1.45	0.05
	B ₂ 5}-QFM	240	1.50	
pDZ (C)	C ₁ 21 YL 35 JQF"	160	1.57	1/2 = 0.03
	C ₂ 36 YL 50 JQF"	160	1.54	1/3 = 0.25
	C ₃ 51 & T\YL JW\JQF"	160	1.32	2/3 = 0.22

4.2.2.12.1 jI ISTGM 5}SFZ VG\ T\MGL DGMU{7FIGS ; }BFSFZLGF\ 38S
; FDFgl V; ZSFZSTFP

VCL\ ; FDFgl V; ZSFZSTFGF\ 38S äZF jI IST 5MTFG\ :JF:yI JWS S\ XIST
JWS NJFVMGL H~Z K[S\SD m T\DH jI ISTV\ E\TSF/DF\H\SM. SFI "S\ 5J\ITVM SZL
K[T\GF\ 5\DF6DF\ ; \TMD 5F%T YIM K[S\ SD T\ VU\GL DFICTL 5F%T YFI KP VIC\
jI ISTVMGL ; FDFgl V; ZSFZSTF 5Z T\MGF\ 5}SFZGL sI MUS VG\ IAGI MUSf V; Z
K[S\ SD T\ HF6JFGF\ VFXI YL VFSOFXF: +LI 'F' S; MBL äZF GLR\ NXF"J, XgI
ptS<5GFGL RSF; 6L SZJFDF\ VFJL CTLP

XgI ptS<5GF GP49. IMUS VG[IAGI MUS jI ISTVMGL ; FDFgI V; ZSFZSTFGF
DGMU{7FIGS ; }BFSFZLGF\38SGF\5F%TF\$MGMF DwI SM JrR[
SM. ; FY'S TOFJT GYLP

SMQ8S GP 4.43 G\ IGZL1F6 SZTF H6FI K[S# jI ISTVMGF\5\$FZGF\ ; WE'DF\
T\VMGL ; FDFgI V; ZSFZSTF DF8[G\ 'F' D<I 31.77 5F%T YI\ K# T[0.01 S1FFV[
; FY'S K# T\YL p5ZMST XgI ptS<5GF GM VI: JSFZ SZJFDF\ VFJ[KP SMQ8S GP 4.44 G\
IGZL1F6 SZTF H6FI K[S# IMUS jI ISTVMGL ; FDFgI V; ZSFZSTFGF\5F%TF\$MGM
DwI S 1.58 K# VG[IAGI MUS jI ISTVMGL ; FDFgI V; ZSFZSTFGF\5F%TF\$MGM DwI S
1.49 KP AgG[GF DwI SM JrR[GM TOFJT 0.09 HMUF D/[KP DwI SM JrR[GM TOFJT
:5Q856[; }RJ[K[S# IMUS jI ISTVMDF\ IAGI MUS jI ISTVM SZTF JWfZ[5]DF6DF\
; FDFgI V; ZSFZSTF HMUF D/[KP

VCL\ 5IZ6FDG\ ; VEIJT SFZ6 VF5TF SCL XSF I S# IMUS jI ISTGL
ÒJGX{ L IGI IDT CMJFYL T\MM IAGI MUS jI ISTVM SZTF 5MTFGL 5\IT JW ; FZL
ZLT[SZL XSTF CMI T\J\ AGL XSP p5ZFT IJ JW IMUS 5\ITVM T\VMG\XFZLIZS
DFGI; S :JF:yI HF/JJFDF\ DNN~5 YTL CMI T\J\ AGL XS# T\YL H SNFR IMUS
jI ISTVMDF\ IAGI MUS jI ISTVM SZTF ; FDFgI V; ZSFZSTF J3]5]DF6DF\ HMUF D/[
CMI T\J\ AGL XSP

4.2.2.12.2 jI ISTGL HFIT VG[T\VMGL DGMU{7FIGS ; }BFSFZLGF\38S ; FDFgI
V; ZSFZSTFP

5]:TJT VwI I GDF\ :+LVM VG[5]-QFMGL ; FDFgI V; ZSFZSTF JrR[SM. ; FY'S
TOFJT HMUF D/[K[S[S]D T[HF6JFGF VFXI YL 'F' S; MBL äFZF GLR[D]HA XgI
ptS<5GFGL RSF; 6L SZJFDF\ VFJL CTLP

XgI ptS<5GF GP 50. :+LVM VG[5]-QFMGL ; FDFgI V; ZSFZSTFGADGMU{7FIGS
; }BFSFZLGF 38SGF\5F%TF\$MGMF DwI SM JrR[SM. ; FY'S
TOFJT GYLP

SMQ8S GP 4.43 G\ IGZL1F6 SZTF H6FI K[S\ HFITGA ; NE'DF\ jI ISTVMGL ; FDFgl V ; ZSFZSTFG\ 'F' D\kI 0.00 5F%T YI \ K\ T[0.05 S1FFV[; FY'S GYL4 SMQ8S GP 4.44 G\ IGZL1F6 SZTF H6FI K[S\ :+LVMGL ; FDFgl V ; ZSFZSTFG\ 5F%TF'SMGM DwI S 1.45 K[VG[5]-QFMGL ; FDFgl V ; ZSFZSTFG\ 5F%TF'SMGM DwI S 0.50 K\ AgG\GF DwI SM JrR[0.05 H\B, M GICJT TOFJT HMF D/[K\ 8)SDF\ 5IZ6FDM 5ZYL SCL XSFI S\ :+LVM VG[5]-QFMGL ; FDFgl V ; ZSFZSTFG\ 5F%TF'SMGM DwI SM JrR[SM. ; FY'S TOFJT GYLP T\YL X\jI ptS<5GFG[I YFJT ZFBJFDF\ VFJ[KP

VCL\5IZ6FDG\ ; VEIJT SFZ6 VF5TF SCL XSFI S\ JTD'FG ; DI DA :+LVMDF\IX1F6G\ 5DF6 JWJFYL :+LVMDF+ :+6 SFI M'G SZTF VFtD IJ`JF ; YL HJFANFZLJF/F SFI M' SZTL 56 Y. CMJFYL TMMD\ 56 5)-QFM H\B, L H ; FDFgl V ; ZSFZSTF CMI T\J\AGL XSP

4.2.2.12.3 jI ISTGL pDZGF\ ; NE'DF\ DGMJ{7FIGS ; }BFSFZLG\ 38S ; FDFgl V ; ZSFZSTFP

jI ISTGL ; FDFgl V ; ZSFZSTF 5Z T\VMGL pDZGL (21 YL 35 JQF 36 YL 50 JQF 51 VG[T\YL JWfZ[JQF' SM. V ; Z YFI K[S[S]D T[HF6JF DF8['F' S ; MBL äZF GLR[NXF"J, X\jI ptS<5GFGL RSF ; 6L SZJFDF\ VFJL CTLP

X\jI ptS<5GF GP 51. H\NLvH\NL pDZ 3ZFJTL jI ISTVMGL ; FDFgl V ; Zv SFZSTFG\ DGMJ{7FIGS ; }BFSFZLGF 38SGF 5F%TF'SMGM DwI SM JrR[SM. ; FY'S TOFJT GYLP

SMQ8S GP 4.43 G\ IGZL1F6 SZTF H6FI K[S\ jI ISTVMGL pDZGF ; NE'DF\ T\VMGF\ ; FDFgl V ; ZSFZSTFG\ 'F' D\kI 3.127 5F%T YI \ K\ T[0.05 S1FFV[; FY'S KP T\YL X\jI ptS<5GFGM VI:JSFZ SZJFDF\ VFJ[KP SMQ8S GP 4.44 G\ IGZL1F6 SZTF H6FI K[S\ 21 YL 35 JQF" ; }MLGL pDZ 3ZFJTF jI ISTVMGL ; FDFgl V ; ZSFZSTFG\ 5F%TF'SMGM DwI S 1.57 K\ 36 YL 50 JQF" ; }MLGL pDZ 3ZFJTF jI ISTVMGL ; FDFgl

V; ZSFZSTFGF\5F%TF\$MGM Dwl S **1.54** K\ T[DH **51** JQF" VG[T\YL J3FZ[p\DZGL
 jI ISTVMGL ; FDFgl V; ZSFZSTFGF 5F%TF\$MGM Dwl S **1.32** K\ **21** YL **35** JQF" VG[**36**
 YL **50** JQF" ; \MGL p\DZGF jI ISTVMGL ; FDFgl V; ZSFZSTFGF\5F%TF\$MGM Dwl SM JrR[
0.03 H\, M TOFJT HMJF D/[KP **21**YL **35** JQF"TYF **51** VG[T\YL JWFZ[JQF" 3ZFJTL
 jI ISTVMGL ; FDFgl V; ZSFZSTFGF Dwl S JrR[**0.25** H\, M TOFJT HMJF D/[KP **36**
 YL **50** JQF" TYF **51** JQF" VG[T\YL JWFZ[p\DZGL jI ISTVMGL ; FDFgl V; ZSFZSTFGF
 Dwl SM JrR[**0.22** H\, M TOFJT HMJF D/[KP Dwl SM JrR[G\ TOFJTM 5ZYL SCL XSFI
 S\ **51** & T\YL JWFZ[JQF" WZFJTL jI ISTVMGL ; FDFgl V; ZSFZSTF **21** YL **50** JQF"
 ; \MGL p\DZ WZFJTL jI ISTVM SZTF JWFZ[HMJF D/[KP

4.2.2.12.4 jI ISTGM 5\SFZ4 HFIT VG[p\DZGL VFTZIS| FGL DGMJ{7FIGS
 ; \BFSFZLG\38S ; FDFgl V; ZSFZSTF 5Z V; ZP

jI ISTGM 5\SFZ4 HFIT VG[H\NlvH\Nl p\DZGL +6 S1FFVM VF +6[5IZJtI MGL
 DpI V; Z p5ZFT +6[5IZJtI MGL 5Z:5Z VFTZIS| FGL T\VMGL ; FDFgl
 V; ZSFZSTF 5Z S\JL V; Z YFI K[T[HF6JF DF8['F' S; \BL äZF GLR[NXFJ[, X\jI
 ptS<5GFGl RSF; 6L SZJFDF\VFJL CTLP

X\jI ptS<5GF GP **52.** jI ISTGM 5\SFZ4 HFIT VG[p\DZGL VFTZIS| FGL
 DGMJ{7FIGS ; \BFSFZLG\38S ; FDFgl V; ZSFZSTF
 5Z V; Z YTL GYLP

IJIJ3 :TZGL VFTZIS| FtDS V; ZM HF6JF DF8[I+DFUL" IJRZ6 5yYSZ6
 SZTF jI ISTGM 5\SFZ VG[HFIT (**AxB**), jI ISTGM 5\SFZ VG[p\DZ (**AxC**), HFIT VG[
 p\DZ (**AxC**), jI ISTGM 5\SFZ4 HFIT VG[p\DZ (**AxBxC**) V[D S], RFZ VFTZIS| FVM
 GL ; FDFgl V; ZSFZSTF 5Z V; Z HF6JF DF8['F' D\I M XMMJFDF\VFjI F CTFP

SMQ8S GP **4.43** G\IGZL1F6 SZTF H6FI K[S\ jI ISTGM 5\SFZ VG[HFIT (**AxB**)

GL VFTZIS| FG\ 'F' D}I **1.48** 5F%T YI \ K# T[**0.05** S1FFV[; FY'S GYLP T|YL SCL
XSFI S# jI ISTGM 5\$FZ VG[HFITGL VFTZIS| FtDS V; Z T|VMGL ; FDFgI
V; ZSFZSTF 5Z HMJF D/TL GYLP

jI ISTGM 5\$FZ VG[T|VMGL p'DZ (**AxC**) GL VFTZIS| FtDS V; ZG\ 'F' D}I
0.11 5F%T YI \ K# T[**56 0.05** S1FFV[; FY'S GYLP T|YL SCL XSFI S# jI ISTGM 5\$FZ
VG[T|VMGL p'DZGL VFTZIS| FtDS V; Z T|VMGL ; FDFgI V; ZSFZSTF 5Z YTL GYLP

jI ISTGL HFIT VG[p'DZ (**BxC**) GL VFTZIS| FtDS V; ZG\ 'F' D}I **0.44**
5F%T YI \ K# T[**56 0.05** S1FFV[; FY'S GYL4 T|YL SCL XSFI S# jI ISTGL HFIT VG[
p'DZGL VFTZIS| FtDS V; Z T|VMGL ; FDFgI V; ZSFZSTF 5Z YTL GYLP

jI ISTGM 5\$FZ4 HFIT VG[p'DZ (**AxBxC**) GL VFTZIS| FtDS V; ZG\ 'F' D}I
2.53 5F%T YI \ K# T[**56 0.05** S1FFV[; FY'S GYLP T|YL SCL XSFI S# jI ISTGM 5\$FZ4
HFIT VG[p'DZGL VFTZIS| FtDS V; Z T|VMGL ; FDFgI V; ZSFZSTF 5Z YTL GYLP
T|YL X#I S<5GFG| I YFJT ZFBJFDF\ VFJ[KP

4.2.2.13 jI ISTGM 5\$FZ4 HFIT VG[p'DZGF ; NE'DADGMU{7FIGS
; }BFSFZLG\ 38S VftDCtI FG\ IJRFZMP

2x2x3 O\$8MZI , I MHGF VTUT jI ISTGM 5\$FZ4 HFIT VG[p'DZ VF
+6[:JT\+ 5IZJtI MGL cVftDCtI FG\ IJRFZM: 5Z D#I VG[VFTZIS| FtDS V; ZM
YFI K[S|SD T[HF6JF DF8[I+DFUL" IJRZ6 5yYSZ6 5wWIT äZF 4 X#I ptS<5GF
(SD GP **53** YL **56**) GL RSF; 6L DF8['F' D}I M XMWJFDF\ VFJ| F CTFP VF ; NE'DA
D/, IJIJ3 VFSOFSLI IJUTM SM8S GP **4.45, 4.46** VG[**4.47** DA ZH} SZJFDF\
VFJL KP

SM8S GP 4.45

O\$8MZI , I MHGF VTUT IJIJW H}YMGF VftDCtI FG\ IJRFZMG\ DGMU{7FIGS
; }BFSFZLGF 38SG\ 5F%TF\$SMGF DwI SM TYF 5|DF6 IJR, GP

2x2x3 Q\$8MZI , I MHGF (N=480)

	A₁ I MUS jI ISTVM n = 240		A₂ IAGI MUS jI ISTVM n = 240	
	B₁	B₂	B₁	B₂
pDZ	:+LVM	5]-QFM	:+LVM	5]-QFM
	120	120	120	120
	n=40	n=40	n=40	n=40
C₁ 21 YL 35 JQF"	M=1.83	M=1.67	M=1.88	M=1.75
	S.D.=0.38	S.D.=0.52	S.D.=0.40	S.D.=0.46
	n=40	n=40	n=40	n=40
C₂ 36 YL 50 JQF"	M=1.85	M=1.80	M=1.63	M=1.7
	S.D.=6.42	S.D.=0.40	S.D.=0.62	S.D.=0.54
	n=40	n=40	n=40	n=40
C₃ 51 & T[YL JW] JQF"	M=1.70	M=1.65	M=1.48	M=1.58
	S.D.=0.51	S.D.=0.61	S.D.=0.71	S.D.=0.63
	n=40	n=40	n=40	n=40

SM8S GP 4.46

jI ISTGM 5\$FZ4 HFIT VG[pDZGF ; NE'DF\ DGMJ{7FIGS ; }BFSFZLG\ 38S

VftDctI FG IJRFZM VUJGF **ANOVA** GM ; FZFX

2x2x3 Q\$8MZI , I MHGF (N=480)

Variable	df	S.S.	MASSQ	F	Sig. level
A sjI ISTGM 5\$FZf	1	0.855	0.855	2.87	NS
B sHFITf	1	1.162	1.162	0.04	NS
C spDZf	1	0.245	0.245	0.83	NS

AxB	1	0.474	0.474	1.59	NS
AxC	1	4.613	4.613	0.16	NS
BxC	1	0.474	0.474	1.59	NS
AxBxC	1	0.245	0.245	0.82	NS
W.S.S.	471	140.072	0.297		
Total	478	1546.00			

SM8S GP 4.47

H\YMGF\DG\U(7FIGS ; J\BFSFZLG\38S VftDctI FGF IJREFZMGF\DWI SM TYF
DWI SM JrR\GF\TOFJT

:JT+ 5IZJtIM	S1FFVM	; bIF	Dwl S	Dwl SM JrR\GM TOFJT
jI ISTGM 5\$FZ (A)	A ₁ IMUS jI ISTVM	240	1.75	0.07
	A ₂ IAGIMUS jI ISTVM	240	1.68	
HFIT (B)	B ₁ :+LVM	240	1.73	0.03
	B ₂ 5]-QFM	240	1.70	
pDZ (C)	C ₁ 21 YL 35 JQF"	160	1.78	1/2 = 0.02
	C ₂ 36 YL 50 JQF"	160	1.76	1/3 = 0.18
	C ₃ 51 & T\YL JW] JQF"	160	1.60	2/3 = 0.16

4.2.2.13.1 jI ISTGM 5\$FZ VG[T\VMGF\ VftDctI FGF IJREFZM

VCL\ VftDctI FGF IJREFZM VF 38S äFZF jI ISTV[5MTFGF ÖJGDF\ VftDctI F
SZJF VU\GF IJREFZM SI F" CTF S[S\D m VG[jI ISTG[VftDctI F SZJF VU[IJREFZM
VFJ[K[S[S\D T[VU[GL DFICTL D/[KP 5]: T\T Vwl I GDF\ jI ISTVMGF\ VftDctI FGF
IJREFZM 5Z jI ISTGF\ 5\$FZGL sI MUS VG[IAGIMUSf V; Z YFI K[S[S\D T[
HF6JFGF\ VFXI YL VFSOFXF: +LI 'F' S; MBL äFZF GLR[NXF'J], X\jI ptS<5GFGL
RSF; 6L SZJFDF\ VFJL CTLP

X\jI ptS<5GF **GR53**. IMUS VG[IAGIMUS jI ISTVMGF VftDctI FGF IJREFZMGF

DGMU{7FIGS ; }BFSFZLGF 38SGF\5F%TF\$MGE DwI SM JrR[SM. ; FY'S TOFJT GYLP

SMQ8S GP 4.45 G\ IGZL1F6 SZTF H6FI K[S\ jI ISTVMGF\5FZGF ; NE'DF\ T[VMGF VftDctI FGF\IJRFZMGE\5F%TF\$MDF8[G\ 'F' D}I 2.87 5F%T YI \ K\ T[0.05 S1FFV[; FY'S GYLP T\YL p5ZMST XgI ptS<5GFG[I YFJT ZFBJFDA VFJ[KP SMQ8S GP 4.47 G\ IGZL1F6 SZTF H6FI K[S\ I MUS jI ISTVMGF VftDctI FGF\IJRFZMGE 5F%TF\$MGM DwI S 1.75 K\ VG[IAGI MUS jI ISTVMGF VftDctI FGF\IJRFZMGE 5F%TF\$MGM DwI S 1.68 KP DgI \, DF\NXF'j I F 5DF6[VftDctI FGF\IJRFZMDF\5F%TF\$ HD JWFZ[TD T[jI ISTDF VftDctI FGF\IJRFZMG\ 5DF6 VMK\ K[T\ \VY"38G SZJFDA VFJ[KP VIC\ I MUS VG[IAGI MUS jI ISTVMGF VftDctI FGF\IJRFZMGE DwI SM JrR[0.07 HB, M TOFJT HMJF D/[KP SMQ8S GP 4.55 DF\ HMTF H6FI K[S\ I MUS jI ISTVMGF VftDctI FGF\ IJRFZM IAGI MUS jI ISTVMGF VftDctI FGF\ IJRFZMGE DwI SM SZTF JWFZ[HMJF D/[K\ 5ZT] T[0.05 S1FFV[; FY'S GYL T\YL SCL XSF I S\ I MUS VG[IAGI MUS jI ISTVMGF VftDctI FGF\IJRFZMGE\5F%TF\$MGE DwI SM JrR[SM. ; FY'S TOFJT HMJF D/TM GYLP

4.2.2.13.2 jI ISTGL HFIT VG[T\MDF\ DGMU{7FIGS ; }BFSFZLG\ 38S VftDctI FGF IJRFZM

5]:TJT Vwi I GDF : +LVM VG[5]-QFMGF VftDctI FGF IJRFZM JrR[SM. ; FY'S TOFJT HMJF D/[K[S[S]D T[HF6JFGF VFXI YL 'F' S; NBL äFZF GLR[D]HA XgI ptS<5GFG[RSF; 6L SZJFDA VFJL CTLP

XgI ptS<5GF GP 54. : +LVM VG[5]-QFMGF VftDctI FGF IJRFZMGE DGMU{7FIGS ; }BFSFZLGF 38SGF DwI SM JrR[SM. ; FY'S TOFJT GYLP

SMQ8S GP 4.46 G\ IGZL1F6 SZTF H6FI K[S\ HFITGA ; NE'DF\ jI ISTVMGF

VftDCtI FGf\IJRFZMG\ 'F' DkI **0.04** 5f%T YI\Kf T[**0.05** S1ffV[; FY'S GYL4 SMD8S
GP **4.47** G\ IGZL1F6 SZTF H6FI K[S# :+LVMGF VftDCtI FGf\IJRFZMGf\5f%TFfSMGM
Dwl S **1.73** K[VG[5]-QFMGF VftDCtI FGf\IJRFZMGf\5f%TFfSMGM Dwl S **1.70** Kf
AgGfGF Dwl SM JrR[**0.03** H# , M VMKM TOFJT HMUF D/[KP 8)SDF\ 5IZ6FDM 5ZYL
SCL XSFI S# :+LVM VG[5]-QFMGF VftDCtI FGf\5f%TFfSMGF Dwl SM JrR[SM. ; FY'S
TOFJT GYLP T\YL XgI ptS<5GFG[I YFJT ZFBJFDF\ VFJ[KP

VCL\5IZ6FDG\ ; VEIJT SFZ6 VF5TF SCL XSFI S# JT'DFG ; DI DA
:+LVMDf\IX1F6G\ 5DF6 JWJFYL :+LVM DF+ :+6 SFI M'G SZTF VftD IJ`JF; YL
HJFANFZLJF/F SFI M' SZTL 56 Y. CMJFYL T\VMDF\ 56 5)-QFM H# , L H ; FDFgI
V; ZSFZSTF CMI T\J\AGL XSP

4.2.2.13.3 jI ISTGL p'DZGF\ ; NE'DF\ DGMU{7FIGS ; JBSFZLG\ 38S
VftDCtI FGf\IJRFZMP

jI ISTVMGF VftDCtI FGf\IJRFZM 5Z T\VMGL p'DZGL (**21** YL **35** JQF# **36**
YL **50** JQF# **51** VG[T\YL JWfZ[JQF# SM. V; Z SZ[K[S[S]D T[HF6JF DF8['F' S; MBL
äZF GLR[NXF"J], XgI ptS<5GFG[RSF; 6L SZJFDF\ VFJL CTLP

XgI ptS<5GF GR **55.** HJNLvHJNL p'DZ 3ZFJTL jI ISTVMGF VftDCtI FGf\
IJRFZMGf\ DGMU{7FIGS ; JBSFZLGF 38SGF 5f%TFfSMGF
Dwl SM JrR[SM. ; FY'S TOFJT GYLP

SMD8S GP **4.46** G\ IGZL1F6 SZTF H6FI K[S# jI ISTVMGL p'DZGF ; NE'DF\
T\VMGF VftDCtI FGf\IJRFZMG\ 'F' DkI **0.83** 5f%T YI\Kf T[**0.05** S1ffV[; FY'S GYLP
T\YL XgI ptS<5GFG[I YFJT ZFBJFDF\ VFJ[KP SMD8S GP **4.47** G\ IGZL1F6 SZTF

H6FI K[S# 21 YL 35 JQF" ;]MLGL pDZ 3ZEJTF jI ISTVMGF VftDctI FGFIJRFZMGFI
 5F%TF\$MGM Dwl S 1.78 K[4 36 YL 50 JQF" ;]MLGL pDZ 3ZEJTF jI ISTVMGF
 VftDctI FGFIJRFZMGFI 5F%TF\$MGM Dwl S 1.76 K# TYF 51 JQF" VG[T|YL J3FZ[pDZ
 3ZEJTF jI ISTVMGF VftDctI FGFIJRFZMGFI 5F%TF\$MGM Dwl S 1.60 K# pDZGF +6[
 H|YMGFI Dwl SM JrR[GM TOFJT sHY V\$ VG[A# HY V\$ VG[+64 TYF HY A[VG[
 +6 f VG\$|D| 0.02, 0.18 VG[0.16 HMUF D/[KP TOFJTM 5ZYL HM. XSFI K[S#
 H|NLvH|NL pDZ 3ZEJTL jI ISTVMGF VftDctI FGFIJRFZMGFI Dwl SM JrR[; FY'S
 TOFJT HMUF D/TM GYLP

4.2.2.13.4 jI ISTGM 5\$FZ4 HFIT VG[pDZGL VFTZIS|I FGL DGMU{7FIGS
 ;]BFSFZLGF 38S VftDctI FGFIJRFZM 5Z V; ZP

jI ISTGM 5\$FZ4 T|VMGL HFIT VG[H|NLvH|NL pDZGL +6 S1FFVM VF +6[
 5IZJt|MGL D|l V; Z p5ZFT +6[5IZJt|MGL 5Z:5Z VFTZIS|I FGL T|VMGFI
 VftDctI FGFIJRFZM 5Z S|JL V; Z K[T[HF6JF DF8['F' S; MBL äZF GLR[NXF"J,
 X|l ptS<5GFGL RSF; 6L SZJFDF VEFJL CTLP

X|l ptS<5GF GP **56.** jI ISTGM 5\$FZ4 HFIT VG[pDZGL VFTZIS|I FGL ; FY'S
 V; Z T|VMGL DGMU{7FIGS ;]BFSFZLGF 38S VftDctI FGFIJRFZM 5Z YTL GYLP

IJIJ3 :TZGL VFTZIS|I FtDS V; ZM HF6JF DF8[I+DFUL" IJRZ6 5yYSZ6
 SZTF jI ISTGM 5\$FZ VG[HFIT (AxB), jI ISTGM 5\$FZ VG[pDZ (AxC), HFIT VG[
 pDZ (AxC), jI ISTGM 5\$FZ4 HFIT VG[pDZ (AxBxC) V[D S], RFZ VFTZIS|I FVM
 GL VftDctI FGFIJRFZM 5Z V; Z HF6JF DF8['F' D|l M XMWJFDF VEFJL CTLP

SM8S GP **4.46** G|IGZL1F6 SZTF H6FI K[S# jI ISTGM 5\$FZ VG[HFIT (AxB)
 GL VFTZIS|I FG 'F' D|l 1.59 5F%T YI] K# T[0.05 S1FFV[; FY'S GYLP T|YL SCL

XSEI S# jI ISTGM 5SFZ VG[HFITGL VFTZIS| FtDS V; Z T\MMGF VftDctIFG IJRFZM 5Z HMJF D/TL GYLP

jI ISTGM 5SFZ VG[T\MMGL pDZ (AxC) GL VFTZIS| FtDS V; ZG\ 'F' DkI **0.16** 5F%T YI \ K# T[56 **0.05** S1FFV[; FY'S GYLP T\YL SCL XSEI S# jI ISTGM 5SFZ VG[T\MMGL pDZGL VFTZIS| FtDS V; Z T\MMGF VftDctIFG IJRFZM 5Z HMJF D/TL GYLP

jI ISTGL HFIT VG[pDZ (BxC) GL VFTZIS| FtDS V; ZG\ 'F' DkI **1.59** 5F%T YI \ K# T[56 **0.05** S1FFV[; FY'S GYL4 T\YL SCL XSEI S# jI ISTGL HFIT VG[pDZGL VFTZIS| FtDS V; Z T\MMGF VftDctIFG IJRFZM 5Z YTL GYLP

jI ISTGM 5SFZ4 HFIT VG[pDZ (AxBxC) GL VFTZIS| FtDS V; ZG\ 'F' DkI **0.82** 5F%T YI \ K# T[56 **0.05** S1FFV[; FY'S GYLP T\YL SCL XSEI S# jI ISTGM 5SFZ4 HFIT VG[pDZGL VFTZIS| FtDS V; Z T\MMGF VftDctIFG IJRFZM 5Z YTL GYLP T\YL X#I S<5GFG[I YFJT ZFBJFDA VFJ[KP

4.2.3 jI ISTGM 5SFZ4 HFIT VG[pDZGF ; NE'DFA T\MMGL 5IZI:YITHgI IR\TF (State Anxiety)

2x2x3 0S8MZI , I MHGF VTU"t jI ISTGM 5SFZ4 HFIT VG[pDZ VF +6[:JT+ 5IZJtI MGL jI ISTVMGL 5IZI:YITHgI IR\TF 5Z D#I VG[VFTZIS| FtDS V; ZM HF6JF DF8[I+DFUL" IJRZ6 5yYSZ6 5wWIT äfZF RFZ X#I ptS<5GFG[(GP **57** YL **60**) RSF; 6L DF8['F' DkI XMMJFDA VFJIF CTFP VF ; NE'DFA D/[IJIJ3 VFSOFSLI IJUTM SM8S GP **4.48, 4.49** VG[**4.50** DA\ZH}SZJFDA VFJL KP ; FY'S VFTZIS| FGL J3] RSF; 6L DF8[L.S.D. XMMJFDA VFJI \CTP T\GL VFSOFSLI IJUTM SM8S GP **4.7** DA\ZH}SZJFDA VFJL KP

SM8S GP 4.48

0S8MZI , I MHGF VTU"t IJIJW H\YMGL 5IZI:YITHgI IR\TFGA

**DwI SM TYF 5|DF6 IJR, GMP
2x2x3 0|S8MZI , I MHGF (N=480)**

	A₁ I MUS jI ISTVM n = 240		A₂ IAGI MUS jI ISTVM n = 240	
	B₁	B₂	B₁	B₂
pDZ	: +LVM	5}-QFM	: +LVM	5}-QFM
	120	120	120	120
	n=40	n=40	n=40	n=40
C₁ 21 YL 35 JQF"	M=67.35	M=69.70	M=63.37	M=61.9
	S.D.=5.79	S.D.=6.27	S.D.=6.25	S.D.=6.10
	n=40	n=40	n=40	n=40
C₂ 36 YL 50 JQF"	M=69.75	M=68.85	M=60.18	M=61.75
	S.D.=5.41	S.D.=7.38	S.D.=6.79	S.D.=5.73
	n=40	n=40	n=40	n=40
C₃ 51 & T YL JWJ JQF"	M=66.26	M=67.30	M=60.48	M=59.28
	S.D.=7.88	S.D.=6.44	S.D.=7.56	S.D.=7.05
	n=40	n=40	n=40	n=40

SM8S GP 4.49

jI ISTGM 5|SFZ4 HFIT VG|pDZGF ; NE'DF\5IZI:YITHgI IR\TF
VUJGF ANOVA GM ; FZFX
2x2x3 0|S8MZI , I MHGF (N=480)

Variable	df	S.S.	MASSQ	F	Sig. level

A sjI ISTGM5\$FZf	1	5791.84	5791.84	129.84	0.01
B sHFITf	1	7.00	7.00	0.16	NS
C spDZf	1	0.70	0.70	0.02	NS
AxB	1	2.02	2.02	0.05	NS
AxC	1	201.67	201.67	4.52	0.05
BxC	1	48.60	48.60	1.09	NS
AxBxC	1	100.10	100.10	2.24	NS
W.S.S.	472	21055.00	44.61		
Total	479				

SM8S GP 4.50

H}YMGF 5IZI:YITHgI IRTFGF DwI SM TYF DwI SM JrR{GA TOFJTM

:JT+ 5IZJtIM	S1FFVM	; bIF	DwI S	DwI SM JrR{GM TOFJT
jI ISTGM5\$FZ (A)	A ₁ IMUSjI ISTVM	240	68.20	7.04
	A ₂ IAGIMUSjI ISTVM	240	61.16	
HFIT (B)	B ₁ :+LVM	240	64.57	0.23
	B ₂ 5]-QFM	240	64.80	
pDZ (C)	C ₁ 21 YL 35 JQF"	160	65.58	1/2 = 0.45
	C ₂ 36 YL 50 JQF"	160	65.13	1/3 = 0.25
	C ₃ 51 & T[YL JW]JQF"	160	66.33	2/3 = 0.20

4.2.3.1 jI ISTGM5\$FZ VG[T]VMGL 5IZI:YITHgI IRTF

5]:TJT ; XMMG VwI I GGM V\$ DpI C[T] IMUS VG[IAGIMUSjI ISTVM
 JrR{ 5IZI:YITHgI IRTFGLAFATDF\SM. ; FYS TOFJT HMUF D/[K[S[S]D m T]GL
 HF6SFZL D[/JJFGM CTMP H}d; ; LPSM, DG[I YFY"H SCI] K[S} 19 DL ; NLV[5]UITGM
 I]U K} HI FZ[20 DL ; NLV[IRTF VG[DGMEFZGM I]U K} EF[TS;]B D[/JJF VFHGM

DFGJL ; TT :5WFtDS ÒJG ÒJL ZCI MKP VEJF ; DI DA V\$ I F ALHF 5\$FZ[IRTF
pt5gG SZGFZ 5IZI:YIT ; HF TL H ZC[K[56 VIC\ 5] G V[YFI K[S[HNLvHNL
jI IST XF DF8[H]NF H]NF 5]DF6DA IRTF VG]EJ[K[m jI ISTGL 5IZI:YITHgI IRTF
5Z jI ISTGF\ 5\$FZGL sI MUS VG[IAGI MUS f SM. V; Z YFI K[S[SD T[HF6JF
DF8['F' S; MBL äZF GLR[NXF"J, X]I ptS<5GFGL RSF; 6L SZJFDA VFJL CTLP

X]I ptS<5GF **GR57**. I MUS VG[IAGI MUS jI ISTVMGL 5IZI:YITHgI IRTFGF
5F%TF\$MGM DwI SM JrR[SM. ; FY\$ TOFJT GYLP

SM8S GP **4.49** G]IGZL1F6 SZTF H6FI K[S] jI ISTGF 5\$FZGA; NE'DA
T]VMGL 5IZI:YITHgI IRTF DF8[G] 'F' D]I **129.84** 5F%T YI] K] H[**0.01** S1FFV[
; FY\$ KP T]L p5ZMST X]I ptS<5GFGM VI:JSFZ SZJFDA VFJ[KP SM8S GP **4.50**
G]IGZL1F6 SZTF H6FI K[S] I MUS jI ISTVMGL 5IZI:YITHgI IRTFGF\5F%TF\$MGM
DwI S **68.20** K] HI FZ[IAGI MUS jI ISTVMGL 5IZI:YITHgI IRTFGF 5F%TF\$MGM
DwI S **61.16** K] T]DGL JrR]GM TOFJT **7.04** HMJF D/[KP DwI SM JrR]GM TOFJT
:50856[; RJ[K[S] I MUS jI ISTVM SZTF IAGI MUS jI ISTVM RMSS; 56[JWVZ[
5IZI:YITHgI IRTF VG]EJ[KP

VCL\5IZ6FDG\XSI SFZ6 VF5TF SCL XSF I S] V08FU I MUGF H[VF9 VUM
K[T]DA BF; SZLG[wI FG4 VF; G4 I D4 IGI D4 5F6FI FD JUZ]GM jI ISTGF DG 5Z V\$
RMSS; 5]EFJ 50[KP H]GFYL DFGI; S ; T], G T]DH DFGI; S :JF:yI H/JFI ZC[KP
IGI IDT wI FG SZTL jI ISTG[GSFZfDS IJRFZM VMKF VFJ[KP p5ZFT VFJL jI ISTVM
JT'DFGDA ÒJ[K] HI FZ[IRTF V[EIJOI , 1FL KP p5ZFT V[56 XSI CM. XS[S] I
I MUS]I FYL jI ISTDA ; D: I FG IGF SZ6 DF8GL ; HFUTE 5F%T YTL CMI T]L H
SNFR I MU SZTL jI ISTVM IRTFI]ST 5IZI:YITDA 56 5]6"DFGI; S :J:YTF HF/JL
XSTL CMI T]] AGL XSP **Gupta, Khera, Sweta, Rupshree Khubalkar** JUZ]GA
; XWGMFA 56 HMJF D?I] K[S] I MU SZTL jI ISTVMFA IRTFG] 5]DF6 VMK]HMJF
D?I]CTP

4.2.3.2 jI ISTGL HFIT VG[T]VMGL 5IZI:YITHgI IR\TFP

; FDFgI ZLT[V]J]DFGJFDF\VFJ[K[S] :+LVMGM :JEFJ JWFZ[IR\TFXL, CMI KP ; D:IF~5 5IZI:YITDA 5]-QFM H]B, Fξ- ZCL XS[K] T]B, L :+LVMξ- ZCL XSTL GYLP SFZ64 T]VM JW] IR\TT Y. HFI KP 5ZT]X] BZ]BZ 5]-QFM VG[:+LVMGL 5IZI:YITHgI IR\TFDA TOFJT HMUF D/[K[T[HF6JF DF8['F' S; MBL äZF GLR[NXF]J, X]gI ptS<5GFGL RSF; 6L SZJFDF\VFJL CTLP

X]gI ptS<5GF GP **58.** :+LVM VG[5]-QFMGL 5IZI:YITHgI IR\TFGF\5]F%TF]SMGF DwI SMJrR[SM. ; FY'S TOFJT GYLP

SMQ8S GP **4.49** G] IGZL1F6 SZTF H6FI K[S] HFITGF ; WE'DF]j I ISTVMGL 5IZI:YITHgI IR\TFG] 'F' D]kI **0.16** 5F%T YI] KP H[**0.05** S1FFV[; FY'S GYLP SMQ8S GP **4.50** G] IGZL1F6 SZTF H6FI K[S] :+LVMGL 5IZI:YITHgI IR\TFGF\5]F%TF]SMGM DwI S **64.57** K[VG[5]-QFMGL 5IZI:YITHgI IR\TFGF 5]F%TF]SMGM DwI S **64.80** KP T]DGL JrR[**0.23** H]B, MGICJT TOFJT HMUF D/[KP 8]SD\ 5IZ6FDM 5ZYL SCL XSFI S] :+LVM VG[5]-QFMGL 5IZI:YITHgI IR\TFDA SM. ; FY'S TOFJT HMUF D/TM GYLP T]YL :+LVM 5]-QFM SZTF JWFZ[IR\TF WZFJTL CMI K] T]JL DFgI TFG] VF VeIF; GF 5IZ6FDM äZF B0G YFI KP T]G]; VEIJT SFZ6 VF5TF SCL XSFI S] JT'DFG ; DI GL :+L 5]-QF ; DMJOL AGL U. K] :+LVM VG[5]-QFMGL E]DSF JrR[GM TOFJT 38TM HFI K] T]GL V; Z 5IZI:YITHgI IR\TF 5Z 56 Y. CM. XSP VFD4 X]gI ptS<5GFGL I YFJT ZFBTF SCL XSFI S] :+LVM VG[5]-QFMGL 5IZI:YITHgI IR\TFGF 5]F%TF]SMGF DwI SMJrR[SM. ; FY'S TOFJT GYLP

4.2.3.3 jI ISTVMGL pDZ VG[T]VMGL 5IZI:YITHgI IR\TF

; FDFgI ZLT[jI ISTGL pDZ HD JW[T]D T]GL SFI E]DSF4 T]GM NZHHM AN, [KP p5ZFT T]G[H]NlvH]NL JI [H]NfvH]NF VG]EJM YFI KP TM pDZGL V; Z jI ISTGL 5IZI:YITHgI IR\TF 5Z YFI K[S[S]D T[HF6JF DF8['F' S; MBL äZF GLR[NXF]J,

X_hI ptS<5GFGL RSF; 6L SZJFDA\VFJL CTLP

X_hI ptS<5GF GP**59**. HJNLvHJNL pDZ WZFJTL jI ISTVMGL 5IZI:YITHgI IR\TFGF
5F%TFSMGF DwI SM JrR[SM. ; FY'S TOFJT GYLP

SMQ8S GP **4.49** Df\ HMTF H6FI K[S_h pDZGF ; NE'Df\jI ISTVMGL
5IZI:YITHgI IR\TFG\ 'F' D_kI **0.02** 5F%T YI] KP H_h **0.05** S1FFV[; FY'S GYLP SMQ8S
GP **4.50** G_h IGZL1F6 SZTF H6FI K[S[C₁ V_h, [S[**21** YL **35** JQF'GL pDZ WZFJTL
jI ISTVMGL 5IZI:YITHgI IR\TFGF 5F%TFSMGM DwI S **68.58** KP C₂ V_h, [S_h **36** YL
50 JQF'GL pDZ WZFJTL jI ISTVMGL 5IZI:YITHgI IR\TFGF 5F%TFSMGM DwI S **65.13**
K[VG[C₃ V_h, [S[**51** JQF" VG[T[YL JW] pDZ WZFJTL jI ISTVMGL 5IZI:YITHgI
IR\TFGF 5F%TFSMGF DwI S **65.33** K_h DwI SM JrR[GM TOFJT GICJT KP T[YL X_hI
ptS<5GFG[I YEJT^Y ZFBTF SCL XSFI K_h HJNLvHJNL pDZ WZFJTL jI ISTVMGL
5IZI:YITHgI IR\TFDf\ SM. ; FY'S TOFJT HMUF D/TM GYLP T[G_h ; VEIJT SFZ6
VF5TF SCL XSFI S_h JT'DFG 5IZI:YIT H V_hUL K[S_h H[YL GFGL S[DMBL UD[T[
pDZGL jI IST 5IZI:YITHgI IR\TF VG[EJTL CMM T_hCM XSP

4.2.3.4 jI ISTGM 5_hSFZ4 HFIT VG[pDZGL VF\TZIS|I FGL 5IZI:YITHgI
IR\TF 5Z V; ZP

jI ISTGM 5_hSFZ4 HFIT VG[pDZ VF +6|I :JT+ 5IZJtI MGL D_hI V; Z
p5ZFT +6|I 5IZJtI MGL 5Z:5Z VF\TZIS|I FGL jI ISTVMGL 5IZI:YITHgI IR\TF 5Z
S_hUL V; Z K[T[HF6JF DF8['F' S; MBL äZFZ GLR[NXF"J], X_hI ptS<5GFGL RSF; 6L
SZJFDA\VFJL CTLP

X_hI ptS<5GF GP **60**. jI ISTGM 5_hSFZ4 T_hVMGL HFIT VG[pDZGL VF\TZIS|I FGL
; FY'S V; Z T_hVMGL 5IZI:YITHgI IR\TF 5Z YTL GYLP

IJIJ3 :TZGL VF\TZIS|I FtDS V; ZM HF6JF DF8[I+DFUL" IJRZ6 5_hYSZ6

SZTF jI ISTGM 5ŞFZ VG[HFIT (**AxB**), jI ISTGM 5ŞFZ VG[pDZ (**AxC**), HFIT VG[pDZ (**BxC**), jI ISTGM 5ŞFZ4 HFIT VG[pDZ (**AxBxC**) V[DS], RFZ VFTZIS|I FGL 5IZI:YITHgI IRTF 5Z V; Z HF6JF DF8|'F' DkI M XWJFDF\ VFjI F CTFP

SM8S GP **4.49** DF\ HMTF H6FI K[S# jI ISTGM 5ŞFZ VG[HFIT (**AxB**), GL VFTZIS|I FG\ 'F' DkI **0.05** 5F%T YI \ K# H[**0.05** S1FFV[; FY'S GYLP T\YL SCL XSFI S# jI ISTGM 5ŞFZ VG[HFITGL VFTZIS|I FtDS V; Z T\MMGL 5IZI:YITHgI IRTF 5Z YTL GYLP

jI ISTGM 5ŞFZ VG[TGL pDZ (**AxC**) GL VFTZIS|I FtDS VZ; G\ 'F' DkI **4.52** 5F%T YI \ KP H[**0.05** S1FFV[; FY'S KP T\YL SCL XSFI S# jI ISTGM 5ŞFZ VG[TGL pDZGL VFTZIS|I FtDS V; Z 5IZI:YITHgI IRTF 5Z HMJF D/[KP

SM8S GP 4.51

jI ISTGM 5ŞFZ VG[TGL pDZGL VFTZIS|I FGA; NE'DF\ jI ISTGL 5IZI:YITHgI IRTFGF\ Dwi SM VG['F' DkI

Variable	A ₁ IMUS jI ISTVM	A ₂ IAGIMUS jI ISTVM	f	Sig.
C ₁ 21 YL 35 JQF"	68.33	62.64		
C ₂ 36 YL 50 JQF"	69.30	60.97	4.52	0.05
C ₃ 51& T\YL JWJ JQF"	66.78	59.88		

jI ISTGM 5ŞFZ VG[TGL pDZGL VFTZIS|I FGA VY'38G DF8[IJIJ3 HYMGF\ Dwi SM JrRGF\ TOFJTGL; FYSTF XWJF DF8[**L.S.D.** SM8S XWJFDF\ VFjI \ CT\ TGL\ 5IZ6FD SM8S GP **4.52** DF\ZH] SZJFDF\ VFjI \ KP

SM8S GP 4.52

jI ISTGM 5ŞFZ VG[TGL pDZGL VFTZIS|I FG\ **L.S.D.** NXFJT\ SM8S

SR. NO.	Pairs	Mean difference	Sig.
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1	A₁ C₁ vs A₁ C₂	0.77	NS
2	A₁ C₁ vs A₂ C₁	5.89	0.01
3	A₁ C₁ vs A₂ C₂	7.56	0.01
4	A₁ C₂ vs A₂ C₁	6.66	0.01
5	A₁ C₂ vs A₂ C₂	8.33	0.01
6	A₂ C₁ vs A₂ C₂	1.67	NS
7	A₁ C₁ vs A₁ C₃	2.25	0.01
8	A₂ C₁ vs A₁ C₃	4.14	0.01

SMDS GP 4.52 G\ IGZL1F6 SZTF H6FI K[S\ 21 YL 35 JQFGL I MUS
 jI ISTVM SZTF IAGI MUS jI ISTVMDF\ 5IZI:YITHgI IRTFG\ 5DF6 J3] HMUF D/[KP
 21 YL 35 JQFGL I MUS jI ISTVM VG[36 YL 50 JQFGL IAGI MUS jI ISTVM JrR[
 5IZI:YITHgI IRTFGL AFATDF\ 7.56 H\, M JWFZ[TOFJT HMUF D/[KP T\YL SCL
 XSFI S[36 YL 50 JQFGL I MUS jI ISTVM VG[21 YL 35 JQFGL I MUS jI ISTVM SZTF
 ; FY'S ZLT[JW] 5IZI:YITHgI IRTF VG]EJ[KP 36 YL 50 JQFGL I MUS jI ISTVM VG[
 21 YL 35 JQFGL IAGI MUS jI ISTVM JrR[5IZI:YITHgI IRTFGL AFATDF\ 6.66
 H\, M TOFJT HMUF D/[KP T\YL SCL XSFI S\ 21 YL 35 JQFGL IAGI MUS jI ISTVM
 36 YL 50 JQFGL I MUS jI ISTVM SZTF\ JW] 5IZI:YITHgI IRTF VG]EJ[K[VG[36
 YL 50 JQFGL IAGI MUS jI ISTVM VG[36 YL 50 JQF";]MLGL I MUS jI ISTVM
 JrR[5IZI:YITHgI IRTFGL AFATDF\ 8.33 H\, M TOFJT HMUF D/[KP T\YL SCL XSFI
 S[36 YL 50 JQFGL IAGI MUS jI ISTVM 36 YL 50 JQFGL I MUS jI ISTVM SZTF JWFZ[
 5IZI:YITHgI IRTF VG]EJ[KP VF VFTZIS| FG[VFWFZ[S\, FS TFZ6M SCL XSFI S\
 36 YL 50 JQF";]MLGL IAGI MUS jI ISTVM JWFZ[5IZI:YITHgI IRTF VG]EJ[KP

jI ISTGL HFIT VG[pDZ (BxC) GL VFTZIS| FtDS V; ZG\ 'F' D\kI 1.09
 5F%T YI \ K\ H[0.05 S1FFV[; FY'S GYLP T\YL SCL XSFI S\ HFIT VG[pDZGL

VFTZIS| FGL ; FY'S V; Z 5IZI:YITHgI IRTF 5Z HMJF D/TL GYLP

jI ISTGM 5\$FZ4 HFIT VG[pDZ (AxBxC) GL VFTZIS| FtDS V; ZG\ 'F'
DkI 2.24 5F%T YI\ K\ H[0.05 S1FFV[; FY'S GYLP T\YL SCL XSFI S\ jI ISTGM
5\$FZ4 HFIT VG[pDZGL VFTZIS| FGL ; FY'S V; Z T\MGL 5IZI:YITHgI IRTF 5Z
YTL GYLP

**4.2.4 jI ISTGM 5\$FZ4 HFIT VG[pDZGF ; NE'DF\T\MGL 5|U8 IJST IRTF
(Trait Anxiety)**

2x2x3 O\$8MZI , I MHGF V\TU" jI ISTGM 5\$FZ4 HFIT VG[pDZ VF +6[
:JT\ 5IZJtI MGL jI ISTVMGL 5|U8 IJST IRTF 5Z DpI VG[VFTZIS| FtDS V; ZM
HF6JF DF8|I+DFUL" IJRZ6 5yYSZ6 5wWIT äFZF RFZ XjI ptS<5GFGL (GP 61
YL 64) RSF; 6L DF8| 'F' DkI XMWJFDF\ VFjI F CTFP VF ; NE'DF\ D/[, IJIJ3
VFSOFSLI IJUTM SM8S GP 4.53, 4.54., VG[4.55 DF\ZH)SZJFDF\VFJL KP

SM8S GP 4.53

O\$8MZI , I MHGF V\TU" IJIJW H\Y MGL 5|U8 IJST IRTFGF\
5F%TF\$MGF DwI SM TYF 5|DF6 IJR, GP
2x2x3 O\$8MZI , I MHGF (N=480)

	A₁ I MUS j I ISTVM n = 240		A₂ I AGI MUS j I ISTVM n = 240	
	B₁	B₂	B₁	B₂
p'DZ	: +LVM	5]-QFM	: +LVM	5]-QFM
	120	120	120	120
C₁ 21 YL 35 JQF"	n=40	n=40	n=40	n=40
	M=66.78	M=67.38	M=58.40	M=57.05
	S.D.=7.29	S.D.=6.35	S.D.=5.99	S.D.=9.88
C₂ 36 YL 50 JQF"	n=40	n=40	n=40	n=40
	M=65.95	M=67.38	M=57.30	M=58.53
	S.D.=7.98	S.D.=6.64	S.D.=6.43	S.D.=6.50
C₃ 51 & T[YL JW] JQF"	n=40	n=40	n=40	n=40
	M=63.10	M=64.53	M=58.58	M=55.78
	S.D.=7.57	S.D.=6.35	S.D.=8.22	S.D.=8.97

SIMOS GP 4.54

j I ISTGM 5]SFZ4 HFIT VG[p'DZGF ; NE'DF\5]U8 IJST IRTF
 VUJGF ANOVA GM ; FZFX
 2x2x3 Q]S8MZI , I MHGF (N=480)

Variable	df	S.S.	MASSQ	F	Sig. level
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A sjl ISTGM5\$FZf	1	7254.50	7254.50	129.84	0.01
B sHFITf	1	29.05	29.05	0.48	NS
C spDZf	1	68.80	68.80	1.15	NS
AxB	1	95.63	95.63	1.60	NS
AxC	1	76.50	76.50	1.28	NS
BxC	1	99.46	99.46	1.67	NS
AxBxC	1	27.00	27.00	0.45	NS
W.S.S.	472	59.71	59.71		
Total	479				

SM8S GP 4.55

HjMGL 5|U8IJSTIRTFGF DwI SM TYF DwI SM JrR[GFA TOFJTM

:JT+	S1FFVM	; bIF	DwI S	DwI SM JrR[G M TOFJT
jI ISTGM5\$FZ (A)	A ₁ IMUS jI ISTVM	240	65.85	8.24
	A ₂ IAGIMUS jI ISTVM	240	57.61	
HFIT (B)	B ₁ :+LVM	240	61.69	0.09
	B ₂ 5]-QFM	240	61.78	
pDZ (C)	C ₁ 21 YL 35 JQF"	160	62.40	1/2 = 0.11
	C ₂ 36 YL 50 JQF"	160	62.29	1/3 = 1.9
	C ₃ 51 & T[YL JW] JQF"	160	60.50	2/3 = 1.79

4.2.4.1 jI ISTGM 5\$FZ VG[T[VMGL 5|U8 IJST IRTFP

5]:TJT ; XMMG VwI I GGM V\$ Dbl C[T] IMUS VG[IAGIMUS jI ISTVM
 JrR[5|U8 IJST IRTFD\SM. ; FYS TOFJT K[S[S[D T[HF6JFGM CTMP 5|U8 IJST
 IRTFGM VY": JEFJUT IRTF S[jI IST IJXQF U]6 IRTF V]M YFI KP VD\$ jI ISTGM
 :JEFJ H V]M CMI K[S[T[; FDFgl D]xS[, 5IZI: YITDFYL 56 IRTF VG[EJTL CMI P

VCL\ I MUGL V; Z : JEFJUT IRTE 5Z YFI K[S[SD T[HF6JFGF VFXI YL VFSOFv
XF: +LI 'F' S; MBL äZFZ GLR[NXF'J], XhI ptS<5GFGL RSE; 6L SZJFDA VFJL CTLP
XhI ptS<5GF GP **61.** I MUS VG[IAGI MUS jI ISTVMGL 5|U8 IJST IRTEFGF
5F%TFSMGF Dwl SM JrR[SM. ; FYS TOFJT GYLP

SM8S GP **4.54** G\ IGZL1F6 SZTF H6FI K[S\ jI ISTGFA5SFZGFA; NE'DFA
TVMGL 5IZI: YITHgI IRTE DF8[G\ 'F' D\I **129.84** 5F%T YI \ K\ H[**0.01** S1FFV[
; FYS KP TYL p5ZMST XhI ptS<5GF GM V: JLSFZ SZJFDA VFJ[KP SM8S GP **4.55** G\
IGZL1F6 SZTF H6FI K[S\ I MUS jI ISTVMGL 5|U8 IJST IRTEFGF 5F%TFSMGM Dwl S
65.85 K\ HI FZ[IAGI MUS jI ISTVMGL 5|U8 IJST IRTEFGF 5F%TFSMGM Dwl S **57.61**
KP TDGL JrR[GM TOFJT **8.24** HMJF D/[KP Dwl SM JrR[GM TOFJT : 50856[; RJ[K[
S\ I MUS jI ISTVM SZTF IAGI MUS jI ISTVM RMSS; 56[J3FZ[5|U8 IJST IRTE
VGJEJ[KP

VCL\ 5IZ6FDG\ XSI SFZ6 VF5TF SCL XSFI S\ IGI IDT I MU SZJFYL SNFR
jI ISTGF D/ : JEFJDA 56 5IZJT'G VFJT\ CMI T\J\ AGL XSP IGI IDT wIFG4
5F6FI FD JUZ[I MUS IS| FVM SZJFYL jI ISTG\ DGMA/ ε- AGT\ CX\ GSFZfDS
IJRFZMG\ 5|DF6 38T\ CX[TYL H SNFR VFJF jI IST4 ; FDFgI ÒJGDA VMKL 5|U8
IJST IRTE VGJEJTF CXP V, jZL4 VDF'I ; V\; P I\GJI; '8L VMD S\, OMG'I FGF
; XMWGG\ 5IZ6FD 56 ATEJ[K[S\ I MU SZTL jI IST 5|DF6DA VMKL 5|U8
IJST IRTE VGJEJ[KP **Department of Yoga Psychology**, IACFZ I MUFEFZTL
äZFZ SZJFDA VFJ, ; XMWGG\ 5IZ6FD 56 ATEJ[K[S\ I MUS ÒJGX\ L WZFJTL
jI ISTDA 5|U8 IJST IRTE 5|DF6DA VMKL HMJF D KP VF VeIF; MGA TEZ6M 5\; TJT
VeIF; G[D/TF VFJ[KP 5IZ6FDM 5ZYL SCL XSFI S\ I MUS jI ISTVM SZTF
IAGI MUS jI ISTDA ; FYS ZLT[JWFZ[5|U8 IJST IRTE HMJF D/[KP

4.2.4.2 jI ISTGL HFIT VG[TVMGL 5|U8 IJST IRTEFP

VCL\ : +LVM VG[5]-QFMGL 5|U8 IJST IRTEFDA ; FYS TOFJT HMJF D/[K[S[SD
T[HF6JFGF VFXI YL 'F' S; MBL äZFZ GLR[äZFZ GLR[NXF'J], XhI ptS<5GFGL

RSF; 6L SZJFDF\VFJL CTLP

XgI ptS<5GF GP **62.** :+LVM VG[5]-QFMGL 5|U8 IJST IR\TFGA 5F%TFSMGF DwI SM

JrR[SM. ; FY'S TOFJT GYLP

SMQ8S GP **4.54** G\ IGZL1F6 SZTF H6FI K[S\ HFITGA ; NE'DF\ jI ISTVMGL 5|U8 IJST IR\TFG\ 'F' DkI **0.48** 5F%T YI \ K\ H[**0.05** S1FFV[; FY'S GYLP SMQ8S

GP **4.55** G\ IGZL1F6 SZTF H6FI K[S\ :+LVMGL 5|U8 IJST IR\TFGF 5F%TFSMGM DwI S **61.69** K[VG[5]-QFMGL 5|U8 IJST IR\TFGA 5F%TFSMGM DwI S **61.78** K\ AgG[GF

DwI SM JrR[GM TOFJT **0.09** HMJF D/[K\ H[GICJTÿ K\ DwI SM JrR[GM TOFJT :5Q856[; RJ[K[S\ :+LVM VG[5]-QFMGL 5|U8 IJST IR\TF JrR[; FY'S TOFJT HMJF

D/TM GYLP TYL XgI ptS<5GFG[I YFJT ZFBTF SCL XSF I S\ :+LVM VG[5]-QFMGL 5|U8 IJST IR\TF JrR[SM. ; FY'S TOFJT HMJF D/TM GYLP

4.2.4.3 jI ISTVMGL pDZ VG[TVMGL 5|U8 IJST IR\TFP

jI ISTVMGL 5|U8 IJST IR\TF 5Z TVMGL pDZGL (**21** YL **35** JOF" **36** YL **50** JOF" **51** VG[TYL JW] JOF") SM. V; Z YFI K[S[S\ T[HF6JF DF8['F' S; MBL äFZF GLR[NXF"J, XgI ptS<5GFG L RSF; 6L SZJFDF\VFJL CTLP

XgI ptS<5GF GP **63.** H\NL v H\NL pDZ WZFJTL jI ISTVMGL 5|U8 IJST IR\TFGA

5F%TFSMGF DwI SM JrR[SM. ; FY'S TOFJT GYLP

SMQ8S GP **4.54** G\ IGZL1F6 SZTF H6FI K[S\ jI ISTVMGL pDZGF ; NE'DF\ TVMGL 5|U8 IJST IR\TF DF8[G\ 'F' DkI **1.15** 5F%T YI \ K\ H[**0.05** S1FFV[; FY'S

GYL TYL XgI ptS<5GFG[I YFJT ZFBJFDF\VFJ[K\ SMQ8S GP **4.55** G\ IGZL1F6 SZTF HF6JF D/[K[S\ C₁ V\B, [S[**21** YL **35** JOF" ; \MGL pDZ WZFJTL jI ISTVMGL 5|U8

IJST IR\TFGF 5F%TFSMGM DwI S **62.40** K\ **36** YL **50** JOF" ; \MGL pDZ WZFJTL

jI ISTVMGL 5|U8 IJST IR\TFGF 5F%TFSMGM DwI S **62.29** K\ **51** JOF" VG[TYL JW] pDZ

WZJFTL jI ISTVMGL 5|U8 IJST IR\TFGF 5F%TFSMGM DwI S **65.33** K\ pDZGF +6[

HJYMGFA DwI SM JrR[G M TOFJT s HJY V[S VG[A[HJY V[S VG[+6 TYF HJY A[VG[+6f VG[S]D[**0.11, 1.9**, VG[**1.79** HMUF D/[KP DwI SM JrR[G F TOFJTM 5ZYL HM. XSFI K[S[HJNL HJNL pDZ WZFJTL jI ISTVMGL 5U8IJSTIRTFDA ; FY'S TOFJT HMUF D/TMGYP

VCL\ 5IZ6FDG\ XSI SFZ6 VF5TF SCL XSFI S[5U8 IJST IRTF : JEFJUT IRTF CMJFYL TGL p5Z pDZGL V; Z GCL YTL CMI P V[B, [S[UD[T[pDZ WZFJTL jI IST 5MTFGA D\ IRTFXL, : JEFJG[SFZ6[5U8IJSTIRTF VGJEJTL CMI T[] AGL XSP TYL H SNFR HJNLvHJNL pDZ WZFJTL jI ISTVMGL 5U8IJSTIRTFDA; FY'S TOFJT HMUF GCL D?I M CMI P

4.2.4.4 jI ISTVMGM 5SFZ4 HFIT VG[pDZGL VFTZIS| FGL 5U8 IJST IRTF 5Z V; ZP

jI ISTVMGM 5SFZ4 T[MGL HFIT VG[HJNL HJNL pDZGL +6 S1FFVM VF +6| :JT+ 5IZJtI MGL DpI V; Z p5ZFT +6| 5IZJtI MGL 5Z:5Z VFTZIS| FGL T[MGL 5U8 IJST IRTF 5Z S[UL V; Z K[T[HF6JF DF8['F' S; MBL äZF GLR[NXFJ[, XjI ptS<5GFG RSF; 6L SZJFDA VFJL CTLP

XjI ptS<5GF GP **64.** jI ISTGM 5SFZ4 HFIT VG[pDZGL VFTZIS| FGL ; FY'S V; Z T[MGL 5U8 IJST IRTF 5Z YTL GYLP

IJIJ3 :TZGL VFTZIS| FtDS V; ZM HF6JF DF8[I+DFUL" IJRZ6 5yYSZ6 SZTF jI ISTGM 5SFZ VG[HFIT (**AxB**), jI ISTGM 5SFZ VG[pDZ (**AxC**), HFIT VG[pDZ (**BxC**), jI ISTGM 5SFZ4 HFIT VG[pDZ (**AxBxC**) V[D S], RFZ VFTZIS| FGL 5U8 IJST IRTF 5Z V; Z HF6JF DF8['F' DkI M XMWJFDA VFjI F CTFP

SMQ8S GP**4.54** G\IGZL1F6 SZTF H6FI K[S[jI ISTGM 5SFZ VG[HFIT (**AxB**), GL VFTZIS| FG\ 'F' DkI **1.60** 5F%T YI\ KP H[**0.05** S1FFV[; FY'S GYL4 TYL SCL XSFI S[jI ISTGM 5SFZ VG[TGL HFITGL VFTZIS| FtDS V; Z 5U8IJSTIRTF 5Z

YTL GYLP

jI ISTGM 5\$FZ VG[TGL pDZ (AxC) GL VFTZIS| FtDS V; ZG\ 'F' DkI 1.28
5F%T YI \ K# H[0.05 S1FFV[; FY'S GYLP T\YL SCL XSFI S# jI ISTGM 5\$FZ VG[
T\VMGL p\DZGL VFTZIS| FtDS V; Z T\VMGL 5\U8 IJST IRTF 5Z YTL GYLP

jI ISTGL HFIT VG[pDZ (BxC) GL VFTZIS| FtDS V; ZG\ 'F' DkI 1.67 5F%T
YI \ K# H[0.05 S1FFV[; FY'S GYLP T\YL SCL XSFI S# HFIT VG[pDZGL VFTZIS| FGL
; FY'S V; Z jI ISTVMGL 5\U8 IJST IRTF 5Z YTL GYLP

jI ISTGM 5\$FZ4 HFIT VG[pDZ (AxBxC) GL VFTZIS| FtDS V; ZG\ 'F' DkI
0.45 5F%T YI \ K# H[0.05 S1FFV[; FY'S GYLP T\YL SCL XSFI S# jI ISTGM 5\$FZ4 HFIT
VG[pDZGL VFTZIS| FGL ; FY'S V; Z T\VMGL 5\U8 IJST IRTF 5Z YTL GYLP

4.3 IJEFUv2

DGMJ{7FIGS ; }BFSFZLGF\ ; NE'DF\ 5IZI:YITHgI v 5\U8 IJST IRTFP

VF IJEFUGL I MHGF VTU" jI ISTVMGL DGMJ{7FIGS ; }BFSFZLGL T\VMGL
5IZI:YITHgI v5\U8IJSTIRTF 5Z V; Z HF6JFG\ VFI MHG SZJFDA VFjI \CTP VCL\
DGMJ{7FIGS ; }BFSFZLG[:JT+ 5IZJtI "TZLS[VG[5IZI:YITHgI v5\U8IJST IRTFGL
5ZT+ 5IZJtI "TZLS[, \JFDA VFjI F CTFP VCL\
DGMJ{7FIGS ; }BFSFZLGL :JT+ R,
TZLS[+6 S1FFVM 5F0JF **Cut of point** GSSL SZJF DF8[Q IJR, GGL VFS0FSLI
5wWITGM p5I MU SI M CTMP Q IJR, G 5wWITGF\ VFWFZ[VMKL4 Dwi D VG[JWFZ[
DGMJ{7FIGS ; }BFSFZLV[5\DF6[5\DFTFVMG[+6 H\YMDA IJEFIHT SI F" CTFP VF
+6[I H\YMGF\ jI ISTVM 5IZI:YITHgI 5\U8 IJST IRTFGL AFATDA H\NF 50[K[S[
SD T[HF6JF DF8[c8lc 5IZ1F6GM p5I MU SZJFDA VFjI M CTMP VF IJEFU VTU" S],
2 XgI ptS<5GFVM(GP 65 VG[66) ZRL CTLP 5IZ6FDGL RRF" GLR[GFAD]N\Y\FVMDA
SZJFDA VFJL KP

4.3.1 jI ISTVMGL DGMJ{7FIGS ; }BFSFZL VG[5IZI:YITHgI IRTFP

jI ISTVMGL DGMU{7FIGS ; }BFSFZLGL T\VMGL 5IZI:YITHgI IR\TF 5Z SM.
 V; Z 50[K[S[SD T[HF6JFGM C[T] CTIP VF ; NE'DA XgI ptS<5GF GP **65** ZRJDFA
 VFJL CTIP VCL\ DGMU{7FIGS ; }BFSFZLGL :JT+ R, TZLS[+6 S1FFVM GSSL SZJFDA
 VFJL CTIP HDA Q₁ ISDTYL GLRGA5F%TF SMG[VMKL DGMU{7FIGS ; }BFSFZL Q₁ YL
 Q₃ JrR[GL ISDT ; }MLGA5F%TF SMG[Dwl D DGMU{7FIGS ; }BFSFZL VG[Q₃ VG[TYL
 p5ZGL ISDTGF 5F%TF SMG[JWFZ[DGMU{7FIGS ; }BFSFZL U6JFDA VFJL CTIP VF ZLT[
 JULSZ6 SZTF VMKL DGMU{7FIGS ; }BFSFZL WZFJTF HYDA S], **117** 5|DFTFVM Dwl D
 5|DF6DA DGMU{7FIGS ; }BFSFZL WZFJTF HYDA S], **263** 5|DFTFVM VG[J3] 5|DF6DA
 DGMU{7FIGS ; }BFSFZL WZFJTF HYDA S], **100** 5|DFTFVM GM; DFJX YI M CTIP VMKL4
 Dwl D VG[JW] DGMU{7FIGS ; }BFSFZL 3ZFJTF jI ISTVMGL 5IZI:YITHgI IR\TFGF
 5F%TF SM JrR[SM. ; FYS TOFJT K[S[SD T[HF6JF DF8[GLR[GL XgI ptS<5GFGL
 RSF; 6L SZJFDA VFJL CTIP

XgI ptS<5GF GP **65**. VMKL4 Dwl D VG[J3] DGMU{7FIGS ; }BFSFZL VG[EJTF
 jI ISTVMGL 5IZI:YITHgI IR\TFGF 5F%TF SMG[Dwl SM
 JrR[SM. ; FYS TOFJT GYLP

p5ZMST XgI ptS<5GFGL RSF; 6L DF8['t' S; MBLGM p5I MU SZJFDA VFJ I M
 CTIP HG] 5IZ6FD SM8S GP **4.56** DAZH] SZJFDA VFJ I } KP

SM8S GP 4.56

VMKL4 Dwl D VG[JW] DGMU{7FIGS ; }BFSFZL WZFJTF jI ISTVMGL
 5IZI:YITHgI IR\TFGF Dwl SM 5|DF6 IJR, G VG[c8Lc D} I M

Sr.No.	DGMU{7FIGS ; }BFSFZL	N	Mean	S.D.	t	Sig.
1	VMKL	117	54.20	3.43	1/2 =27.20	0.01
2	Dwl D	263	74.12	3.74	1/3=50.54	0.01

3	JW]	100	85.23	2.10	2/3=22.42	0.01
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SM8S GP **4.56** G\IGZL1F6 SZTF H6FI K[S# VMKL VG[Dwl D DGMU{7FIGS ; }BFSFZL WZFJTF jI ISTVMGL 5IZI:YITHgI IRTFGF 5F%TFSMGF Dwl SM JrR[; FY'S TOFJT ZC[, M KP HY V\$ VG[A[GA Dwl SM VG\$D[**54.20** VG[**74.12** KP VCL\ c8Lc D}I **27.2** 5F%T YI\ K# H[**0.01** S1FFV[; FY'S KP T\YL SCL XSFI S# Dwl D DGMU{7FIGS ; }BFSFZL WZFJTL jI ISTVM SZTF VMKL DGMU{7FIGS ; }BFSFZL WZFJTL jI ISTVMDF\ 5IZI:YITHgI IRTFG\ 5DF6 J3] HMF D/[KP

VMKL VG[J3] DGMU{7FIGS ; }BFSFZL WZFJTF jI ISTVMGL 5IZI:YITHgI IRTFGF\ 5F%TFSMGF JrR[; FY'S TOFJT ZC[, M KP HY V\$ VG[+6GF Dwl SM VG\$D[**54.20** VG[**85.23** KP VCL\ c8Lc D}I **50.54** 5F%T YI\ KP H[**0.01** S1FFV[; FY'S KP T\YL SCL XSFI S# JW] DGMU{7FIGS ; }BFSFZL WZFJTL jI ISTVM SZTF VMKL DGMU{7FIGS ; }BFSFZL WZFJTL jI ISTVMDF\ 5IZI:YITHgI IRTFG\ 5DF6 JW] HMF D/[KP

Dwl D VG[JW] DGMU{7FIGS ; }BFSFZL 3ZFJTF jI ISTVMGL 5IZI:YITHgI IRTFGF\ 5F%TFSMGF\ Dwl SM JrR[; FY'S TOFJT ZC[, M KP HY A[VG[+6GADwl SM VG\$D[**74.12** VG[**85.23** KP VCL\ c8Lc D}I **22.42** 5F%T YI\ KP H[**0.01** S1FFV[; FY'S KP T\YL SCL XSFI S# J3] DGMU{7FIGS ; }BFSFZL WZFJTL jI ISTVM SZTF Dwl D DGMU{7FIGS ; }BFSFZL WZFJTL jI ISTVMDF\ 5IZI:YITHgI IRTFG\ 5DF6 JW] HMF D/[KP

p5ZMST +6I\ c8Lc D}I M HMTF H6FI K[S# VMKL VG[Dwl D4 VMKL VG[J3] T\DH Dwl D VG[J3] DGMU{7FIGS ; }BFSFZL WZFJTL jI ISTVMGF\ HY JrR[5IZI:YIT HgI IRTFGLAFATDF\ ; FY'S TOFJT HMF D/[KP T\YL XgI ptS<5GFGM VI:JSFZ SZTF SCL XSFI S# VMKL4 Dwl D VG[JWfZ[DGMU{7FIGS ; }BFSFZL VG[EJTF jI ISTVMGL 5IZI:YITHgI IRTFGF\ 5F%TFSM JrR[; FY'S TOFJT HMF D/[KP

VCL\5IZ6FDG\XSI SFZ6 VF5TF SCL XSEI S4 5IZI:YITHgI IR\TF IGQFWS
5IZA/ CMJFYL T[DGMJ{7FIGS ; }BFSFZLDA 38FOM SZT\ CMI T\J\ AGL XSP HD
5IZI:YITHgI IR\TFG\ 5DF6 JWT\ CX[T\DA jI IST VMKL4 DGMJ{7FIGS ; }BFSFZL
VGJEJTL CX[T\J\CMI XSP

4.3.2 jI ISTVMGL DGMJ{7FIGS ; }BFSFZL VG[5|U8 IJST IR\TF

jI ISTVMGL DGMJ{7FIGS ; }BFSFZLGL T\VMGL 5|U8IJSTIRTF 5Z SM V; Z
50[K[S[S[D T[HF6JFGMC[T] CTIP VF ; NE'DA\XgI ptS<5GF GP 66 ZRJDFA\VEJL
CTL4 VCL\DGMJ{7FIGS ; }BFSFZLGL :JT+ R, TZLS[+6 S1FFVM GSSL SZJDFA\VEJL
CTLP H[DA Q₁ ISDTYL GLR[GA\5|F%TF\SMG[VMKL DGMJ{7FIGS ; }BFSFZL4 Q₁ YL Q₃
JrR[GL ISDT ; }WLGFA\5|F%TF\SMG[Dwi D DGMJ{7FIGS ; }BFSFZL VG[Q₃ VG[TYL
p5ZGL ISDTGF 5|F%TF\SMG[JWFZ[DGMJ{7FIGS ; }BFSFZL U6JDFA\VEJL CTLP VF ZLT[
JULSZ6 SZTF VMKL DGMJ{7FIGS ; }BFSFZL WZEJTF HYDAS], 105 5|DFTFVM
Dwi D 5|DF6DA\ DGMJ{7FIGS ; }BFSFZL WZEJTF HYDAS], 277 5|DFTFVM VG[J3]
5|DF6DA\ DGMJ{7FIGS ; }BFSFZL WZEJTF HYDAS], 98 5|DFTFVMGM ; DFJX YI MCTIP
VMKL4 Dwi D VG[JW] DGMJ{7FIGS ; }BFSFZL 3ZEJTF jI ISTVMGL 5|U8 IJST IR\TFGF
5|F%TF\SM JrR[SM. ; FYS TOFJT K[S[S[D T[HF6JF DF8[GLR[GL XgI ptS<5GFGL
RSF; 6L SZJDFA\VEJL CTLP

XgI ptS<5GF GP 66. VMKL4 Dwi D VG[J3] DGMJ{7FIGS ; }BFSFZL VG[EJTF
jI ISTVMGL 5|U8 IJST IR\TFGA\5|F%TF\SMGA\ Dwi SM JrR[
SM. ; FYS TOFJT GYLP

p5ZMST XgI ptS<5GFGL RSF; 6L DF8['t' S; NBLGM p5I MU SZJDFA\VEJ I M
CTIP H[G\5IZ6FD SMQ8S GP 4.57 DA\ZH]SZJDFA\VEJ I \Kp

SMDS GP 4.57

VMKL Dwl D VG[JW] DGMJ{7FIGS ; }BFSFZL WZFJTF jI ISTVMGL
5|U8 IJST IRTFGFA Dwl SM 5|DF6 IJR, G VG[c8lc D}kI M

Sr.No.	DGMJ{7FIGS ; }BFSFZL	N	Mean	S.D.	t	Sig.
1	VMKL	105	49.73	5.74	1/2 =20.11	0.01
2	Dwl D	277	62.18	4.37	1/3=29.25	0.01
3	JW]	98	72.82	2.49	2/3=37.58	0.01

SMDS GP 4.57 G}IGZL1F6 SZTF H6FI K[S} VMKL & Dwl D DGMJ{7FIGS ; }BFSFZL WZFJTF jI ISTVMGL 5|U8 IJST IRTFGFA 5|F%TFSMGF Dwl SM JrR[; FY'S TOFJT ZC[, M KP HY V} VG[A[GA Dwl SM VG}SD[**49.73** VG[**62.18** KP VCL\c8lc D}kI **20.11** 5|F%T YI } K} H[**0.01** S1FFV[; FY'S KP TYL SCL XSFI S} Dwl D DGMJ{7FIGS ; }BFSFZL WZFJTL jI ISTVM SZTF VMKL DGMJ{7FIGS ; }BFSFZL WZFJTL jI ISTVMDF\ 5|U8 IJST IRTFG} 5|DF6 J3] HMF D/[KP

VMKL VG[J3] DGMJ{7FIGS ; }BFSFZL WZFJTF jI ISTVMGL 5|U8 IJST IRTFGFA 5|F%TFSMGF JrR[; FY'S TOFJT ZC[, M KP HY V} VG[+6GF Dwl SM JrR[VG}SD[**49.73** VG[**72.82** KP VCL\c8lc D}kI **29.25** 5|F%T YI } KP H[**0.01** S1FFV[; FY'S KP TYL SCL XSFI S} JW] DGMJ{7FIGS ; }BFSFZL WZFJTL jI ISTVM SZTF VMKL DGMJ{7FIGS ; }BFSFZL WZFJTL jI ISTVMDF\ 5|U8 IJST IRTFG} 5|DF6 JW] HMF D/[KP

Dwl D VG[JW] DGMJ{7FIGS ; }BFSFZL 3ZFJTF jI ISTVMGL 5|U8 IJST IRTFGFA 5|F%TFSMGF Dwl SM JrR[; FY'S TOFJT ZC[, M KP HY A[VG[+6GADwl SM VG}SD[**62.18** VG[**72.82** KP VCL\c8lc D}kI **37.58** 5|F%T YI } KP H[**0.01** S1FFV[; FY'S KP TYL SCL XSFI S} J3] DGMJ{7FIGS ; }BFSFZL WZFJTL jI ISTVM SZTF Dwl D DGMJ{7FIGS ; }BFSFZL WZFJTL jI ISTVMDF\ 5|U8 IJST IRTFG} 5|DF6 JW] HMF D/[KP

p5ZNST +6| c8lc D}kI M HMTF H6FI K[S} VMKL VG[Dwl D4 VMKL VG[J3] TDH Dwl D VG[J3] DGMJ{7FIGS ; }BFSFZL WZFJTL jI ISTVMGFA HY JrR[5|U8 IJST

IRTFGLAFATDF\ ; FY'S TOFJT HMUF D/[KP T[YL X]I ptS<5GFGM VI:JSFZ SZTF
SCL XSFI S# VMKL4 Dwl D VG[JWFZ[DGMU{7FIGS ; }BFSFZL VG[EJTF jI ISTVMGL
5|U8 IJST IRTFGF\5F%TFSM JrR[; FY'S TOFJT HMUF D/[KP

5.1 5]:TFJGF

SM. 56 I; wWFTGL ZRGF ; XMMGYL YTL CMI KP ; XMMGDF\IJQFI GL 5; NUL
V[5YD TASSM KP HI FZ[; FDFgI LSZ6 TFZJJFGM K[, M TASSM KP VF TASSM V[
; XMMGGM VS" KP I; wWFTGL ZRGF VF TASSFDF\ YFI KP JUL'SZ6 VG[5yYSZ6
ãFZF 38GFVMG\ VYW8G SZJFDF\ VFJ[K[VG[VY'38G äFZF 5}JWFZ6FVMG\
; FDFgI LSZ6 SZL I; wWFT TFZJJFDF\ VFJ[KP

5\$Z6v 5
; XWGGF TFZ6M VG[E, FD6M

5.1 5|:TFJGF

5.2 VwI I GGF\TFZ6M

5.3 VwI I GGL DI FNFVM

5.4 VwI I GGF ;]RIFY"

5.5 EIJQI DAVFU/ VeIF; DF8GF ; RGM

IRTFGLAFATDF\ ; FY'S TOFJT HMUF D/[KP T[YL X]I ptS<5GFGM VI:JSFZ SZTF
SCL XSFI S# VMKL4 Dwl D VG[JWFZ[DGMU{7FIGS ; }BFSFZL VG[EJTF jI ISTVMGL
5|U8 IJST IRTFGL\5F%TFSM JrR[; FY'S TOFJT HMUF D/[KP

5.1 5]:TFJGF

SM. 56 I; wWFTGL ZRGF ; XMMGYL YTL CMI KP ; XMMGDF\IJQFI GL 5; NUL
V[5YD TASSM KP HI FZ[; FDFgI LSZ6 TFZJJFGM K[, M TASSM KP VF TASSM V[
; XMMGGM VS" KP I; wWFTGL ZRGF VF TASSFDF\ YFI KP JUL'SZ6 VG[5yYSZ6
ãFZF 38GFVMG\ VYW8G SZJFDF\ VFJ[K[VG[VY'38G äFZF 5}JWFZ6FVMG\
; FDFgI LSZ6 SZL I; wWFT TFZJJFDF\ VFJ[KP

5]:T]T ; XNWGDA jIISTVMGM 5]SFZ4 HFIT VG[pDZGL jIISTVMGL
DGMU{7FIGS ; }BFSFZL VG[5IZI:YITHgl v5|U8 IJST IRTF 5Z SM. V; Z K[S]SD
T[VeIF; SZJFGM D}I C[T]CTMP JWDA DGMU{7FIGS ; }BFSFZLGF\IJJW 38SM 5Z
jIISTGM 5]SFZ4 HFIT VG[pDZGL V; Z HMF D/[K[S]SD TGM VeIF; SZJFGM C[T]
CTMP VF p5ZFT DGMU{7FIGS ; }BFSFZLGL jIISTGL 5IZI:YITHgl v5|U8IJST IRTF
5Z SM. V; Z HMF D/[K[S]SD TGF VU[HF6SFZL D/JJFGM C[T] 56 GSSL SI M
CTMP VeIF; GA C[T]G[wIFGDAZFBLG[**2x2x3** I+DFUL" IJRZ6 5yYSZ6 5wWIT
T]DH 'Q' IJR, G VG['t' U}6MTZ 5wWITG\ VFI MHG SZJFDA VFjI }CTP

5]:T]T VwI I G DF8[**240** I MUS jIISTVM VG[**240** IAGI MUS jIISTVMG
:TZLST I Nrk IGNX" J0[5; N SZJFDA VFjI F CTP jIISTVM 5F; YL VwI I GGA
C[T]VMG[VG]-5 DFICTL 5F%T SZJF DF8[jIISTUT DFICTL5+S4 **Bhogle & Prakash**
ZIRT DGMU{7FIGS ; }BFSFZL T], F4 VG[**Spillbarger GL State Trait Anxiety**
Inventory s5IZI:YITHgl 5|U8 IJST IRTF 5|GFJ, lf HUF DF5NOMGM p5I MU
SZJFDA VFjI M CTMP p5ZMST TDFD ; FWGNGM jI F5S56[IJJIW ; XNWGDA p5I MU
SZJFDA VFJ, KP T]D KTA T]DGL IJ`J; GLI TF VG[I YFY"TFGL 5ZTL RSF; 6L
SZJFDA VFJL CTLP

; XNWGDA 5YD TASSFDA D}I C[T]GFAVG]; WFGDA VeIF; SZJFDA VFjI M
CTMP HDA jIISTVMGL DGMU{7FIGS ; }BFSFZL VG[5IZI:YITHgl v 5|U8IJSTIRTFG
V; Z SZTF IJJIW 38SMGM VeIF; SZJFDA VFjI M KP VIC\C[T]VMGFA VeIF; DF8[
2x2x3 O}S8MZI , I MHGF GSSL SZL CTL4 HDA jIISTVMGF 5]SFZGL A[S1FFVM sI MUS
jIISTVM VG[IAGI MUS jIISTVMF4 jIISTVMGL HFITGL A[S1FFVM s: +LVM VG[
5]-QFM f VG[pDZGL +6 S1FFVM (**21** YL **35** JOF"q **36** YL **50** JOF"q **51** VG[T]YL JW
JOF" f GSSL SZJFDA VFJL CTLP

; XNWGGA ALHF TASSFDA jIISTVMGL DGMU{7FIGS ; }BFSFZLGL V; Z T]VMGL
5IZI:YITHgl v5|U8 IJST IRTF 5Z YFI K[S]SD T[HF6JFGM 5|IF; SZJFGM

CTIP VF C[TG[wI FGDA ZFBLG[DGMU{7FIGS ; }BFSFZLGL +6 S1FFVM sVMK4 DwI D
VG[JW] f 5F0JF DF8[**Cut of point** GSSL SZJF 'Q' IJR, GGM p5IMU SZJFDA
VFjIM CTM TYF TOFJTMGL RSF; 6L SZJF 't' U}6MTZGF p5IMU I}ST IMHGFG[
VFI MHG SZJFDA VFjI }CTP

5}:TJT VwI IG DF8[IGNX'GL 5; NUL A[IJEFUDASZJFDA VFJL KP VIC[
5YD IJEFUDA HFDGUZ XCZDA IJIJW IMU ; }8ZMDA IGI IDT IMU SZJF VFJTF
jI ISTVM T}DH 3Z ZCLG[56 IGI IDT IMU SZTF CMI T}F jI ISTVMGL 5FYIDS
DFICTL D/JJFDA VFJLP VF DFICTLGL VNZ jI ISTGF GFDYL DFOLG[jI IST SM.
XFZLIZS IADFZL WZFJ[K[S[S}D m T[VUUGL DFICTL D/JJFDA VFJL CTIP 5F%T
YI[, L IJUTM VG[IGI V+T 5IZJtIMG[wI FGDAZFBL **120** : +LVM VG[**120** 5}~QFMG[
:TZLST I N}K IGNX"5; NULGL 5wWITYL 5; N SZJFDA VFjI F CTFP AgG[5}SFZGF
5; N SZ[, F **120** pZ ZNFTFVMDA **40** jI ISTVM **21** YL **35** JQF"GL pDZGF4 **40** jI ISTVM
36 YL **50** JQF"GL pDZGF VG[**40** jI ISTVM **51** JQF" VG[T}YL JW] pDZGF CMI T}F
jI ISTVMGM IGNX'DA; DEJX SZJFDA VFjI MCTIP

VF p5ZFT ALHF IJEFUDA IAGIMUS jI ISTVMGL 5; NUL SZJFDA VFJLP
VF DF8[HFDGUZ XCZGF IJIJW IJ:TFZMDA ZC}TF IAGIMUS jI ISTVMDFYL **240**
jI ISTVMG[I N}K GD}GF 5; NULGL 5wWITYL 5; N SZJFDA VFjI F CTFP 5; N 5FD[, F

240 pZ ZNFTFVMDA **120** : +LVM VG[**120** 5}~QFM H}DA : +LVM VG[5}~QFM
AgG}DA **40** jI ISTVM **21** YL **35** JQF"; }WLGFA **40** jI ISTVM **36** YL **50** JQF"; }WLGFA VG[
40 jI ISTVM **51** JQF" VG[T}YL JW] pDZGF jI ISTVMGM IGNX'DA; DEJX SZJFDA
VFjI MCTIP VFD ; XMWGGF C[TG[wI FGDA, . **240** IMUS jI ISTVM VG[**240**
IAGIMUS jI ISTVM V}D S[, D/LG[S], **480** pZ ZNFTFVMG[5; N SZJFDA VFjI F
CTFP VF jI ISTVM 5F; }YL VFU/ NXF}J[, ; FWGM VF5LG[DFICTL V}+LT SZJFDA
VFJL CTIP D/[, DFICTL} IMuI ZLT[U}6FSG SZLG[ZR}FDA VFJ[, IJIJW X}I

ptS<5GFVMGL RSF; 6L DF8[IJlJW VFS0FSLI 5wwIT 5|l MHJFDF\ VFJL CTLP 5IZ6FD
GF\ 5yYSZ6 DF8[Dbl tJ[IJRZ6 5yYSZ6 VG['t' S; NBLGM p5l MU SI M'CTMP VF
ZLT[5F%T YI[, F 5IZ6FDM 5ZYL TFZJJFDF\ VFJ[, TFZ6MGL ZH]VFT GLR[SZJFDF\
VFJL KP

5.2 Vwl I GG\TFZ6M

5|:TJT Vwl I GG\ 5F%T YI[, F\5IZ6FDMGF\ VFWFZ[GLR[5|DF6[TFZ6M
TFZJJFDF\VFJl F KP

1 jI ISTVMGF 5|SFZGL IEgGTFG[SFZ6[jI ISTVMGL DGMJ{7FIGS ; }BFSFZLGF
5F%TFSMDF; FY'S TOFJT HMJF D/[KP I MUS jI ISTVMDF\ IAGI MUS jI ISTVM
SZTF JWFZ[5|DF6DF\ DGMJ{7FIGS ; }BFSFZL HMJF D/[KP

2 :+LVM VG[5]-QFMGL DGMJ{7FIGS ; }BFSFZLDF; FY'S TOFJT HMJF D/TMGYLP

3 HJNLvHJNL pDZ WZFJTL jI ISTVMGL DGMJ{7FIGS ; }BFSFZL JrR[; FY'S TOFJT
HMJF D/TMGYLP

4 jI ISTVMGM 5|SFZ4 T\VMGL HFIT VG[pDZ VF +6|l 5IZJtIM JrR[GL
VFTZIS|l FGL T\VMGL DGMJ{7FIGS ; }BFSFZL 5Z ; FY'S V; Z HMJF D/TL GYLP

5 jI ISTVMGF 5|SFZGL IEgGTFG[SFZ6[jI ISTVMGF ; \TMDFGF DGMJ{7FIGS
; }BFSFZLGF 38SGF\5F%TFSMDF; FY"S TOFJT HMJF D/[KP IAGI MUS
jI ISTVM SZTF I MUS jI ISTVMDF\ ; \TMDF JWFZ[5|DF6DF\ HMJF D/[KP

6 :+LVM VG[5]-QFMGF ; \TMDFGF DGMJ{7FIGS ; }BFSFZLGF 38SDF; FY'S TOFJT
HMJF D/TMGYLP

7 HJNL HJNL pDZ WZFJTL jI ISTVMGF ; \TMDFDF\ DGMJ{7FIGS ; }BFSFZLGF 38SDF\
; FY'S TOFJT HMJF D/TMGYLP

8 jI ISTVMGM 5|SFZ4 T\VMGL HFIT VG[pDZ VF +6|l 5IZJtIM JrR[GL
VFTZIS|l FGL T\VMGF ; \TMDF DGMJ{7FIGS ; }BFSFZLGF 38SGF\5Z ; FY'S V; Z
HMJF D/TL GYLP

- 9** jI ISTVMGF\ 5|SFZGL IEgGTFG[SFZ6[jI ISTVMGF ; FDFIHS VFWFZGF\
DGMU{7FIGS ; }BFSFZLGF 38SGF\5F%TF\$MDF\ ; FY'S TOFJT HMUF D/[KP
IAGI MUS jI ISTVM SZTF I MUS jI ISTVMDF\ ; FDFIHS VFWFZ JWFZ[5|DF6DF\
HMUF D/[KP
- 10** :+LVM VG[5]-QFMGF ; FDFIHS VFWFZGF\
DGMU{7FIGS ; }BFSFZLGF 38SDF\
; FY'S TOFJT HMUF D/TM GYLP
- 11** HJNLvHJNL pDZ WZFJTL jI ISTVMGF ; FDFIHS VFWFZGF\
DGMU{7FIGS ; }BFSFZL
GF\ 38SDF\ ; FY'S TOFJT HMUF D/TM GYLP
- 12** jI ISTVMGM 5|SFZ4 T|VMGL HFIT VG[pDZ VF +6| 5IZJtI M JrR|GL
VFTZIS|I FGL T|VMGF ; FDFIHS VFWFZ 5Z DGMU{7FIGS ; }BFSFZLGF 38S 5Z
; FY'S V; Z HMUF D/TL GYLP
- 13** jI ISTVMGF 5|SFZGL IEgGTFG[SFZ6[jI ISTVMGL VY'IJICGTFGF\
DGMU{7FIGS
; }BFSFZLGF\ 38SGF 5F%TF\$MDF\ ; FY'S TOFJT HMUF D/[KP I MUS jI ISTVM
SZTF IAGI MUS jI ISTVMDF\ VY'IJICGTF JWFZ[5|DF6DF\
HMUF D/[KP
- 14** :+LVM VG[5]-QFMGL VY'IJICGTFGF\
DGMU{7FIGS ; }BFSFZLGF\ 38SDF\ ; FY'S
TOFJT HMUF D/TM GYLP
- 15** HJNLvHJNL pDZ WZFJTL jI ISTVMGL VY'IJICGTFGF\
DGMU{7FIGS ; }BFSFZLGF\
38S JrR| ; FY'S TOFJT HMUF D/TM GYLP
- 16** jI ISTGM 5|SFZ4 T|VMGL HFIT VG[pDZ VF +6| 5IZJtI M JrR|GL VFTZIS|I F
T|VMGL VY'IJICGTFGF\
DGMU{7FIGS ; }BFSFZLGF\ 38S 5Z ; FY'S V; Z HMUF
D/TL GYLP
- 17** jI ISTVMGF 5|SFZGL IEgGTFG[SFZ6[jI ISTVMGL XFZLIZS OIZI FNGF\
DGMU{7FIGS ; }BFSFZLGF\ 38SGF 5F%TF\$MDF\ ; FY'S TOFJT HMUF D/[KP I MUS

- jI ISTVM SZTF IAGI MUS jI ISTVMDA XFIZZLS OIZI FN JWFZ[5]DF6DA\HMUF
D/[KP
- 18** :+LVM VG[5]-QFMGL XFZLIS OIZI FNGA\ DGMU{7FIGS ; }BFSFZLGA\ 38SDA\ ; FY'S
TOFJT HMUF D/TM GYLP
- 19** H]NLvH]NL pDZ WZFJTL jI ISTVMGL XFZLIS OIZI FNGA\ DGMU{7FIGS ; }BFSFZL
GA\ 38S JrR[; FY'S TOFJT HMUF D/TM GYLP
- 20** jI ISTVMGM 5]SFZ4 T]VMGL HFIT VG[pDZ VF +6[] 5IZJtIM JrR[GL
VFTZIS| FGL T]VMGL XFZLIS OIZI FNGA\ DGMU{7FIGS ; }BFSFZLGA\ 38S 5Z
; FY'S V; Z HMUF D/TL GYLP
- 21** jI ISTVMGF 5]SFZGL IEgGTFG[SFZ6[jI ISTVMGF VftDUFZJGADGMU{7FIGS
; }BFSFZLGA\ 38SGF 5F%TFSMDA\ ; FY'S TOFJT HMUF D/[KP I MUS jI ISTVMDA\
IAGI MUS jI ISTVM SZTF JWFZ[5]DF6DA\ VftDUFZJ HMUF D/[KP
- 22** :+LVM VG[5]-QFMGF VftDUFZJGA\ DGMU{7FIGS ; }BFSFZLGA\ 38SDA\ ; FY'S
TOFJT HMUF D/TM GYLP
- 23** H]NLvH]NL pDZ WZFJTL jI ISTVMGF VftDUFZJ JrR[; FY'S TOFJT HMUF
D/TM GYLP
- 24** jI ISTGM 5]SFZ VG[jI ISTGL HFIT VF AgG[5IZJtIM JrR[GL VFTZIS| FGL
T]VMGF VftDUFZJGF DGMU{7FIGS ; }BFSFZLGF 38S 5Z ; FY'S V; Z HMUF
D/[KP
- 25** jI ISTGM 5]SFZ VG[T]VMGL pDZ VF AgG[5IZJtIM JrR[GL VFTZIS| FGL
T]VMGF VftDUFZJGF DGMU{7FIGS ; }BFSFZLGA\ 38S 5Z ; FY'S V; Z HMUF
D/[KP
- 26** jI ISTVMGM 5]SFZ4 T]VMGL HFIT VG[pDZ VF +6[] 5IZJtIM JrR[GL

- VFTZIS| FGL T\VMGF VftDUFZJGF\DG MU{7FIGS ; }BFSFZLGF\ 38S 5Z ; FY'S V; Z HMUF D/TL GYLP
- 27** jI ISTVMGF\5|SFZGL IEgGTFG[SFZ6[jI ISTVMGL IJ3FI S , FU6LGF\ DG MU{7FIGS ; }BFSFZLGF\ 38SGF\ 5F%TF\SMDF\ ; FY'S TOFJT HMUF D/[KP I MUS jI ISTVMDF\IAGI MUS jI ISTVM SZTF JWFZ[5|DF6DF\ IJ3FI S , FU6L HMUF D/[KP
- 28** :+LVM VG[5]-QFMGL IJ3FI S , FU6LGF\ DG MU{7FIGS ; }BFSFZLGF\ 38SDF\ ; FY'S TOFJT HMUF D/TM GYLP
- 29** H\NLvH\NL p'DZ WZFJTL jI ISTVMGL DG MU{7FIGS ; }BFSFZLGF\ 38S IJ3FI S , FU6L JrR[; FY'S TOFJT HMUF D/TM GYLP
- 30** jI ISTVMGM 5|SFZ4 T\VMGL HFIT JrR[GL VFTZIS| FGL T\VMGL IJ3FI S , FU6LGF\ DG MU{7FIGS ; }BFSFZLGF\ 38S 5Z ; FY'S V; Z HMUF D/[KP
- 31** jI ISTVMGM 5|SFZ4 T\VMGL HFIT VG[p'DZ VF +6| 5IZJtIM JrR[GL VFTZIS| FGL T\VMGL IJ3FI S , FU6LGF\ DG MU{7FIGS ; }BFSFZLGF\ 38S 5Z ; FY'S V; Z HMUF D/TL GYLP
- 32** jI ISTVMGF\5|SFZGL IEgGTFG[SFZ6[jI ISTVMGL SFI DL 5|'ITGF\ DG MU{7FIGS ; }BFSFZLGF\ 38SGF\5|F%TF\SMGF JrR[; FY'S TOFJT HMUF D/[KP I MUS jI ISTVMDF\ IAGI MUS jI ISTVM SZTF JWFZ[5|DF6DF\ SFI DL 5|'IT HMUF D/[KP
- 33** :+LVM VG[5]-QFMGL SFI DL 5|'ITGF\DG MU{7FIGS ; }BFSFZLGF\38SDF\ ; FY'S TOFJT HMUF D/TM GYLP
- 34** H\NL H\NL p'DZ WZFJTL jI ISTVMGL DG MU{7FIGS ; }BFSFZLGF\ 38S SFI DL 5|'IT JrR[; FY'S TOFJT HMUF D/TM GYLP
- 35** jI ISTVMGM 5|SFZ4 T\VMGL HFIT VG[p'DZ VF +6| 5IZJtIM JrR[GL

VFTZIS|I FGL T|VMGL SFI DL 5|UITGF DGMU{7FIGS ; }BFSFZLGF\ 38S 5Z ; FY'S
V; Z HMUF D/TL GYLP

36 jI ISTVMGF\ 5|SFZGL IEgGTFG| SFZ6| T|VMGF\ ÒJG ; \TMOFGF\DGMU{7FIGS
; }BFSFZLGF 38SGF\ 5F%TFSMDF\ ; FY'S TOFJT HMUF D/[KP I MUS jI ISTVMDF\
IAGI MUS jI ISTVM SZTF JWFZ[5|DF6DF\ ÒJG; \TMOF HMUF D/[KP

37 :+LVM VG[5|}QFMGF ÒJG; \TMOFGF\ DGMU{7FIGS ; }BFSFZLGF\ 38SDF\ ; FY'S
TOFJT HMUF D/TM GYLP

38 H|NLvH|NL p'DZ WZFJTL jI ISTVMGF\ ÒJG; \TMOFGF\ DGMU{7FIGS ; }BFSFZLGF\
38SDF\ ; FY'S TOFJT HMUF D/[KP **51** JQF" VG[T|YL JWFZ[p'DZ WZFJTL
jI ISTVM SZTF **21** YL **35** JQF" ; }MLGL p'DZ WZFJTL jI ISTVMDF\ JWFZ[
5|DF6DF\ ÒJG; \TMOF HMUF D/[KP

39 jI ISTVMGM 5|SFZ VG[T|VMGL p'DZ JrR|GL VFTZIS|I FGL T|VMGF\ ÒJG; \TMOF
DGMU{7FIGS ; }BFSFZLGF\ 38S 5Z ; FY'S V; Z HMUF D/[KP

40 jI ISTGM 5|SFZ4 T|VMGL HFIT VG[p'DZ VF +6| 5IZJtIM" JrR|GL
VFTZIS|I FGL T|VMGF DGMU{7FIGS ; }BFSFZLGF 38S ÒJG; \TMOF 5Z ; FY'S
V; Z HMUF D/TL GYLP

41 jI ISTVMGF\ 5|SFZGL IEgGTFG| SFZ6| T|VMGF\ VFtD; \I DGF DGMU{7FIGS
; }BFSFZLGF 38SGF\ 5F%TFSMDF\ ; FY'S TOFJT HMUF D/[KP I MUS jI ISTVMDF\
IAGI MUS jI ISTVM SZTF VFtD; \I D JWFZ[5|DF6DF\ HMUF D/[KP

42 :+LVM VG[5|}QFMGF VFtD; \I DGF DGMU{7FIGS ; }BFSFZLGF\ 38SDF\ ; FY'S
TOFJT HMUF D/TM GYLP

43 H|NLvH|NL p'DZ WZFJTL jI ISTVMGF\ VFtD; \I DGF\ DGMU{7FIGS ; }BFSFZLGF\
38SDF\ ; FY'S TOFJT HMUF D/TM GYLP

- 44 jI ISTGM 5|SFZ VG| pDZ JrR[GL VFTZIS|I FGL T|VMGF VftD; V DGF
DGMU{7FIGS ; }BFSFZLGF 38S 5Z ; FY'S V; Z HMUF D/[KP
- 45 jI ISTGM 5|SFZ4 HFIT VG| pDZ VF +6| 5IZJtIM JrR[GL VFTZIS|I FGL
T|VMGF VftD; V DGF DGMU{7FIGS ; }BFSFZLGF 38S 5Z ; FY'S V; Z HMUF
D/TLGYLP
- 46 jI ISTVMGF 5|SFZGL IEgGTFG| SFZ6| T|VMGL TF6GF DGMU{7FIGS ; }BFSFZLGF
38SGF 5|F%TFSMDF ; FY'S TOFJT HMUF D/[KP I MUS jI ISTVM SZTF
IAGI MUS jI ISTVMDF TF6 JWFZ[5|DF6DF HMUF D/[KP
- 47 :+LVM VG| 5|~QFMGL TF6GF DGMU{7FIGS ; }BFSFZLGF 38SDF ; FY'S TOFJT
HMUF D/TMGYLP
- 48 HJNLvHJNL pDZ WZFJTL jI ISTVMGL TF6GF DGMU{7FIGS ; }BFSFZLGF 38SDF
; FY'S TOFJT HMUF D/TMGYLP
- 49 jI ISTVMGM 5|SFZ4 T|VMGL HFIT VG| pDZ VF +6| 5IZJtIM JrR[GL
VFTZIS|I FGL T|VMGF TF6GF DGMU{7FIGS ; }BFSFZLGF 38S 5Z ; FY'S V; Z
HMUF D/TLGYLP
- 50 jI ISTVMGF 5|SFZGL IEgGTFG| SFZ6| T|VMGM ; FZF56FGFDGMU{7FIGS
; }BFSFZLGF 38SGF 5|F%TFSMDF ; FY'S TOFJT HMUF D/[KP I MUS jI ISTVMDF
IAGI MUS jI IST SZTF JWFZ[5|DF6DF ; FZF56} HMUF D/[KP
- 51 :+LVM VG[5|~QFMGF ; FZF56FGFDGMU{7FIGS ; }BFSFZLGF 38SDF ; FY'S
TOFJT HMUF D/TMGYLP
- 52 HJNLvHJNL pDZ WZFJTL jI ISTVMGF ; FZF56FGFDGMU{7FIGS ; }BFSFZLGF 38S
JrR[; FY'S TOFJT HMUF D/TMGYLP

- 53** jI ISTVMGM 5|SFZ4 T|VMGL HFIT VG| pDZ VF +6| 5IZJtIM JrR|GL
VFTZIS|I FGL T|VMGF ; FZF56FGFADGMU{7FIGS ; }BFSFZLGF\ 38S 5Z ; FY'S
V; Z HMUF D/TL GYLP
- 54** jI ISTVMGF\ 5|SFZGL IEgGTFG|SFZ6|jI ISTVMGL DGMU{7FIGS ; }BFSFZLG\|V|S
38S ; FDFgI V; ZSFZSTFGF DGMU{7FIGS ; }BFSFZLGF 38SGF 5F%TF\$MDF\ ; FY'S
TOFJT HMUF D/[KP IMUS jI ISTVMDF\ IAGIMUS jI ISTVM SZTF JWFZ|
5|DF6DF\ ; FDFgI V; ZSFZSTF HMUF D/[KP
- 55** :+LVM VG| 5|-QFMGL ; FDFgI V; ZSFZSTFGF\ DGMU{7FIGS ; }BFSFZLGF\ 38S
JrR| ; FY'S TOFJT HMUF D/TM GYLP
- 56** H|NLvH|NL pDZ WZFJTL jI ISTVMGL ; FDFgI V; ZSFZSTFGFADGMU{7FIGS
; }BFSFZLGF\ 38SDF\ ; FY'S TOFJT HMUF D/[KP **51** JQF" VG| T|YL JWFZ|
pDZGL jI ISTVM SZTF **21** YL **35** JQF" T|DH **36** YL **50** JQF" ; }MLGL pDZGL
jI ISTVMDF\ ; FDFgI V; ZSFZSTF JWFZ| 5|DF6DF\ HMUF D/[KP
- 57** jI ISTVMGM 5|SFZ4 T|VMGL HFIT VG| pDZ VF +6| 5IZJtIM JrR|GL
VFTZIS|I FGL T|VMGF ; FZF56FGFADGMU{7FIGS ; }BFSFZLGF\ 38S 5Z ; FY'S
V; Z HMUF D/TL GYLP
- 58** jI ISTVMGF 5|SFZGL IEgGTFG|SFZ6|T|VMGL DGMU{7FIGS ; }BFSFZLG\| V|S
38S VftDCtI FGF\ IJRFZMDF\ ; FY'S TOFJT HMUF D/TM GYLP
- 59** DGMU{7FIGS ; }BFSFZLG\|V|S 38S VftDCtI FGF\ IJRFZMDF\ :+LVM VG| 5|-QFMDF\
; FY'S TOFJT HMUF D/TM GYLP
- 60** H|NLvH|NL pDZ WZFJTL jI ISTVMGF DGMU{7FIGS ; }BFSFZLGF\ 38S VftD
CtI FGF\ IJRFZMDF\ ; FY'S TOFJT HMUF D/TM GYLP
- 61** jI ISTVMGM 5|SFZ4 T|VMGL HFIT VG| pDZ VF +6| 5IZJtIM JrR|GL

VFTZIS|I FGL T|VMGL DGMU{7FIGS ; }BFSFZLGA V\$ 38S VftDctI FGFIJRFZM
5Z ; FY'S V; Z HMUF D/TL GYLP

62 jI ISTVMGFA 5\$SFZGL IEgGTFG[SFZ6[T|VMGL 5IZI:YITHgI IRTFEGF 5F%TF\$MDF
; FY'S TOFJT HMUF D/[KP I MUS jI ISTVM SZTF IAGI MUS jI ISTVMDF
5IZI:YITHgI IRTF JWFZ[5|DF6DFA HMUF D/[KP

63 :+LVM VG[5]-QFMGL 5IZI:YITHgI IRTFDA ; FY'S TOFJT HMUF D/TM GYLP

64 H|NLvH|NL pDZ WZFJTL jI ISTVMGL 5IZI:YITHgI IRTFDA ; FY'S TOFJT HMUF
D/TM GYLP

65 jI ISTVMGM 5\$SFZ VG[T|VMGL pDZ JrRGL VFTZIS|I FGL T|VMGL 5IZI:YITv
HgI IRTF 5Z ; FY'S V; Z HMUF D/[KP

66 jI ISTVMGM 5\$SFZ4 T|VMGL HFIT VG[pDZ VF +6| 5IZJtIM JrRGL
VFTZIS|I FGL T|VMGL 5IZI:YITHgI IRTF 5Z ; FY'S V; Z HMUF D/TL GYLP

67 jI ISTVMGFA 5\$SFZGL IEgGTFG[SFZ6[jI ISTVMGL 5|U8IJSTIRTFEGF 5F%TF\$MDF
; FY'S TOFJT HMUF D/[KP I MUS jI ISTVM SZTF IAGI MUS jI ISTVMDF
5|U8vIJST IRTF JWFZ[5|DF6DFA HMUF D/[KP

68 H|NLvH|NL pDZ WZFJTL jI ISTVMGL 5|U8IJSTIRTFDA ; FY'S TOFJT HMUF
D/TM GYLP

69 jI ISTVMGM 5\$SFZ4 T|VMGL HFIT VG[pDZ VF +6| 5IZJtIM JrRGL
VFTZIS|I FGL T|VMGL 5|U8 IJST IRTF 5Z ; FY'S V; Z HMUF D/TL GYLP

70 :+LVM VG[5]-QFMGL 5|U8 IJST IRTFDA ; FY'S TOFJT HMUF D/TM GYLP

71 jI ISTVMGL DGMU{7FIGS ; }BFSFZLGL ; FY'S V; Z T|VMGL 5IZI:YITHgI IRTF
5Z HMUF D/[KP H|DFA V MKL DGMU{7FIGS ; }BFSFZL WZFJTF jI ISTVMDF
Dwi D VG[JW] DGMU{7FIGS ; }BFSFZL WZFJTF jI ISTVM SZTF 5IZI:YITHgI
IRTFG\ 5|DF6 JW] HMUF D/[KP

72 jI ISTVMGL DGMU{7FIGS ; }BFSFZLGL ; FY'S V; Z T{VMGL 5U8 IJST IRTF
5Z HMUF D/[KP HDA VMKL DGMU{7FIGS ; }BFSFZL WZFJTF jI ISTVMDF
Dwi D VG[JW] DGMU{7FIGS ; }BFSFZL WZFJTF jI ISTVM SZTF 5U8 IJST
IRTFG\ 5]DF6 JW]HMUF D/[KP

5.3 Vwi I GGL DI FNFVM

; \MWSMV[; \MWGDA SJ/ 5MTFGL ; 0/TFVMG\ H GIC 56 5MTFGF
VeIF; GL H[SM. DI FNFVM ZCL CMI TG\ 56 J6'G SZJ\HM. VP SM. 56 ; \MWG
; '56"VG[DI FNFZICT EfuI [H ; \EJL XS[KP JFT'IGS IJ7FGMGF ; \MWGDA EF[TS
IJ7FG H\B, L R]:T J:T], 1FLTf ; \EJL XSTL GYLP 5]tI \S ; \MWGGF\TFZ6M E, FD6M
VG[; \MWS[ATEJ[, Vwi I GGL DI FNFVM ALHF ; \MWGGL 5J'E]DSF AGTF CMI
KP 5]:TJT Vwi I GDA; \MWSGL N'08V[H[DI FNFVM ZCL HJF 5FDL K[T[GLR[ZH}
SZJFDA\VFJL KP

1 5]:TJT Vwi I GDA\5; N SZFI[, IGNX'5F+M DF+ HFDGUZ XCZDFYL 5; N
SZFI[, CMI 5F%T YI[, 5IZ6FDMG\jI F5S ; FDFgI LSZ6 Y. XS[GICP

2 VCI\IGNX'DA OST UHZFTL EF0FL jI ISTVMGM H ; DFJX SZ[, K\ T\YL ALÒ
jI ISTVMG[VF 5IZ6FD , FU]5FOL XSFI GICP

3 VIC\VMKFDA VMK\ N; WMZ6 E6[, CMI T\pF jI ISTVMGM H ; DFJX SIM
CMI T\YL N; WMZ6YL VMK] E6[, CMI T\pF jI ISTVMG[VF 5IZ6FD , FU]
5FOL XSFI GICP

4 5]:TJT Vwi I GDA 5ZI6T jI ISTVMGM H ; DFJX SIM CMJFYL V5ZI6T
jI ISTVMG[VF 5IZ6FD , FU]5FOL XSFI GICP

5 VCI\H\pGL pDZ 20 J0FYL JW]CMI T\pF jI ISTVMG[H IGNXDA 5; N
SZJFDA\VFjI F CTFP

6 GD)GFL 5; NULDF\ I N!rKSZ6GF\ 5}6"VFNXM; FY[9LS 9LS AFWKMO SZJL
50[KP NZS TASS[I N!rKSZ6 VHDFJL XSFI]GYL4 V[GL ; B\N GMM , [JL
H~ZL KP

5.4 VwI I GGF ; }RTFY"

5]:TJT VwI I GGF TFZ6MNXF"J[K[S[I MUS jI ISTVMDF\IAGI MUS jI ISTVM
SZTF JWFZ[5]DF6DF\ DGMU{7FIGS ; }BFSFZL HMJF D/[K# I MUS VG[IAGI MUS
jI ISTVMGL ÒJGX{ L H]NL H]NL CMI KP ; FDFgI ZLT[VFHGF ; DI DF\ DF6; M
EF[TS ; }B D/[JF 5FK/ VFW/L NMB D]SL ZC[F KP H[GF SFZ6[TG\ DFGI; S
:JF:yI HMBDFI KP T[TF64 IRTF JUZ[VG]EJ[K[VG[3FZL ; 0/TF G D/TF TG[
ÒJG VYIJICG , FUJF DFO[KP ALÒ TZO H[jI ISTVMIGI IDT wI FG4 5F6FI FDDF\
D#F JUZ[I MUS IS[FVM SZ[K[T]VMG\ DGMA/ DHA]T YFI KP T]YL SM. 56
; D:IFGM T]VM V; ZSFZS pS[, FJL XS[KP IJIJW VF; GM VG[S; ZTM SZJFYL
jI ISTG\ XFZLIZS :JF:yI ; F~ ZC[KP H[GL IJWFI S V; Z T]VMGF DFGI; S :JF:yI
5Z YFI KP H[jI ISTGL DGMU{7FIGS ; }BFSFZLDF\JWFZM SZ[KP VFYL jI ISTGF
XFZLIZS VG[DFGI; S :JF:yI H/JFI ZC[T[DF8[I MUJL IJIJW 5[I]ISTVMGM p5I MU
JW]G[JW] , MSM SZTF YFI T]F 5[I F; M YJF HM. VP

:+LVM VG[5]-QFMGL DGMU{7FIGS ; }BFSFZLDF\ TOFJT HMJF D/TM GYLP
:+LVM VG[5]-QFMGL E]DSF VF56F ; DFHDF\ H]NLvH]NL CMJF KTF\ AgGG[5MTFGF
SFI MDF\ D]S[L VFJ[K# ; D:IFVM pNÿEJ[K[VG[SFI"; \TMOF D/L XSTM GYL
V]J] AG[K[T]YL H SNFR :+LVM VG[5]-QFMGL DGMU{7FIGS ; }BFSFZLDF\ ; FY'S TOFJT
HMJF D/TM GCL CMI P

H]NLvH]NL pDZ (21 YL 35 YL JOF# 36-50 JOF# 51 VG[T]YL JW] JOF# WZFJTL
jI ISTVMGL DGMU{7FIGS ; }BFSFZLDF\ ; FY'S TOFJT HMJF D/TM GYLP

5):TJT Vei F; G\ 5IZ6FD NXF"J[K[S# IMUS jI ISTVM SZTF IAGIMUS
 jI ISTVMDF\ 5IZI:YITHgI IRTF JWFZ[5DF6DF\ HMUF D/[KP V08FU IMUGF H[
 VF9 VUM K[TDF\ BF; SZLG[VF; G4 5f6FI FD4 wI FG JUZ[jI ISTGF DG 5Z V\$
 RISS; 5|EFJ 50[KP HGFYL IJS8 5IZI:YITDF\jI IST DFGI; S ; T], G HF/JL XS[
 K# GSFZfDS IJRFZM VMKF VFJ[K# IMUIS| FDA VpL 1FDTF ZC[, L K# HGF aZFZ
 ; D:IFGF IGZFSZ6 DF8[GL ; HFUTF 5f%T YFI K[VG[IRTFI }ST 5IZI:YITDF\56
 jI IST 5}6" DFGI; S :J:YTF ZFBL XS[KP **Gupta, Khera, Nidhi Sweta** GF\
 ; XMMGM VG; FZ IMUGL TF, LD AFN jI ISTGL IRTFDF\38FOM HMUF D?IMCTMP

JTDFG :5WFtDS IJDA V\$ IF ALHF 5\$FZ[IRTF pt5gG SZGFZ 5IZI:YIT
 ; HFIT H ZC[KP Tyl HM JWG[JW]jI ISTVM IGI IDT IMUGL 5\$8L; SZTF YFI TM
 jI ISTGL 5IZI:YITHgI IRTFDF\38FOM Y. XSP

:+LVM VG[5}-QFMGL 5IZI:YITHgI IRTF JrR[; FY'S TOFJT HMUF D/TM GYLP
 ; FDFgl DfgI TF VpL K[S[:+LVM 5}-QFM SZTF JWFZ[h05YL IRVTT AGL HFI KP
 ; D:IF~5 5IZI:YITDF\5}-QFM :+LVM SZTF JWFZ[a- ZCL XS[KP 5ZT] VCL\ 5):TJT
 Vei F; GF 5IZ6FD 5ZYL VF DfgI TFG\ B0G YFI KP JTDFG ; DI DF :+L IX1F6G\
 5DF6 JwI \K[VG[:+LVM 5}-QF ; DMJOL AGTL HFI KP VF 0ZOFZGL V; Z T[VMGL
 5IZI:YITHgI IRTF 5Z YTL CMI Tj\AGL XSP

5):TJT VwI I GG\ 5IZ6FD NXF"J[K[S[H]NLvH]NL pDZ WZFJTL jI ISTVMGL
 5IZI:YITHgI IRTFDF\ ; FY'S TOFJT HMUF D/TM GYLP HIFZ[jI ISTGM 5\$FZ VG[
 T[VMGL pDZGL VFTZIS| fDS V; Z jI ISTVMGL 5IZI:YITHgI IRTF 5Z HMUF
 D/[KP

5):TJT VwI I GG\5IZ6FD NXF"J[K[S# IMUS jI ISTVM SZTF IAGIMUS
 jI ISTVMDF\5|U8IJSTIRTF JWFZ[5DF6DF\ HMUF D/[KP 5|U8IJSTIRTFV[D]/EJT
 S[:JEFJUT IRTF KP 5):TJT VwI I GG\ 5IZ6FD 5ZYL SCL XSF I S[IGI IDT

IMU SZJFYL jI ISTGFA D/EJT :JEFJDA 56 5IZJTG VFJT CXP
Department of Yoga Psychology IACFZ IMUF EFZTL aZF SZJFDA VFJ,
 ; XMMGG) 5IZ6FD 56 NXFJ[K[S[IMUS OJGX{ L WZFJTL jI ISTVMDA **Trait**
Anxiety 5DF6DA VMKL HMUF D/[KP jI ISTGF 36F XFZLIZS VG[DFGI; S ZMUG)
 SFZ6 VF 5U8 IJST IRTF KP ZMUG[GFA) SZJM CMI TM TGF DY ; JWL HJ) 50P
 TYL HM IMU aZF 5U8IJSTIRTFG[IGI V+T SZL XSFI TM jI ISTGF XFZLIZS VG[
 DFGI; S ZMUG) 5DF6 VMK) SZL XSFI P VF DF8[IMU V[V\$ DFU" KP

:+LVM VG[5]-QFMGL 5U8IJSTIRTFDA TOFJT HMUF D/TM GYLP :JFEFIJS
 ZLT[V]D DFGJFDA VFJ[K[S[:+LVM:JEFJUT ZLT[JW]IRTFJF/L 5\$IT WZFJTL CMI
 K) 5ZT] 5]:TJT VeIF; GA 5IZ6FDYL VF DfGI TFG) BOG YFI KP VU) AGL XS[S)
 5]-QMDA 56 5U8IJSTIRTFVM :+LVM H) , L H CMI 4 5ZT] :+LVM IRTF NXF"JL N)
 KP DGDA ZFBL XSFTL GYL HI FZ[5]-QFM :JEFJUT IRTF CMUF KTF) NXF"JTF G CMI P
 VIC\ :+LVM VG[5]-QFMGL :JEFJUT IRTF JrR[SM. ; FY'S TOFJT HMUF D/TM GYLP

5]:TJT VeIF; G) 5IZ6FD NXF"J[K[S[DGMU{7FIGS ;)BFSFZLG) V\$ 38S
 ; TMDFGL AFATDA IMUS VG[IAGIMUS jI ISTVMDA TOFJT HMUF D/[KP IMUS
 jI ISTVMDA IAGIMUS jI ISTVM SZTF ; TMDFG) 5DF6 JW) HMUF D/[KP VCL
 ; TMDFGM VY" jI ISTGF :JF:yl 4 , uGÒJG VG[; DU| OJG VUMSZJFDA VFjIM
 KP IMUS jI ISTGL OJGX{ LDF) IGI IDT wI FG4 5f6FI FD4 IJ)JW S; ZTM VF; GM
 JUZGM ; DFJX YFI K[V[AWL IS) FVMYL jI ISTG) XFZLIZS :JF:yl TM ; F~ ZC[K)
 T[; FY[jI ISTDA CSFZfDS IJRFZ6F4 5DF6; ZGL V5)FFVM JUZ[56 HMUF D/[
 KP VF 38SM jI ISTGF ; TMDFDA JWFZM SZ[T]L XSI TFVM KP ; TMDFDA JWFZM SZ[T]L
 XSI TF JWL HFI K[TYL NZ\$ jI ISTV[IMUGL IGI IDT 5\$8L; SZJL HM. V[SFZ6
 S[NZ\$ jI ISTGL 5U)TG)DY wI)I TM; TMDF D/JJFG)H CMI KP :+LVM VG[5]-QFMGL
 ; TMDFDA ; FY'S TOFJT HMUF D/TM GYLP jI ISTGF 5\$FZ4 HFIT VG[pDZ VF +6[I
 5IZJtIM JrR[GL VFTZIS) ftdS V; Z T)MGA; TMDF 5Z HMUF D/TL GYLP

5]:TJT Vwi I GG\ 5IZ6FD NXFJ[K[S[DGMU{7FIGS ; }BFSFZLG\ V\$ 38S
; FDFÒS VFWFZGL AFATDF\ I MUS VG[IAGI MUS jI ISTVM JrR[TOFJT HMJF
D/[KP I MUS jI ISTVMDF\ IAGI MUS jI ISTVM SZTF ; FDFÒS VFWFZ JW] HMJF
D/[KP I MUS jI ISTVMGL ÒJGX{ L H V\JL CMI K[S[; DFHGF , MSM TG[; DY'G
VF5[KP p5ZFT T\VMGL CSFZfDS IJRFZWFZFG[, LW[56 T\VM V\JL , FU6L VG[EJ]
K[S[; DFHGF , MSM TZOYL 5MTFG[; 5} " ; CSFZ D/L ZC[K[H[T]GF ; FDFÒS
VFWFZDF\ JWFZMSZ[KP VFHGF VF :5WFtDS I]JDF\ ; FDFgI DF6; G[V]D , FU[K]
S\ VF ; DFH :JFYL"KP N]GI FDF\ 5MTFG\SM. GYL V\B, [5MT[V\$, M CMI T\J], FU
KP T\YL I MJGL 5\$18; áZF jI ISTG[CSFZfDS ZLT[IJRFZTF SZL XSFIP :+LVMVG[
5]-QFM JrR[; FDFÒS VFWFZDF\ ; FY'S TOFJT HMJF D/TM GYLP :+LVMGL 5Z5ZFUT
E]DSF VG[NZZHF SZTF JT'DFG DI DF\ 5IZJT'G VFjI \KP T\YL :+LVM DF+ U'IC6L
H G ZC[TF , UEU NZ\$ 1f+[SFI "SZTL HMJF D/[KP 36F DIC, F D0/MVI:TtJDF\
VFjI F K[H[:+LVMGF 5] GM ; DÒG[C, SZJF 5|tG SZ[KP ; ZSFZ TZOYL 56
:+LVM DF8[VD]\$ HuI F VGFDT ZFBJFDF\ VFJL K[VF AWL AFATMG[, LW[:+LVM
56 ; FDFÒS VFWFZ D[/JTL Y. KP :+LVM 5]-QFM ; DMJOL AGL K\ T\YL H SNFR
:+LVM VG[5]-QFMGF ; FDFÒS VFWFZ JrR[; FY'S TOFJT HMJF D/TM GCL CMI P
H]NLvH]NL p\DZ WZFJTL jI ISTVMGF\ ; FDFÒS VFWFZDF\ ; FY'S TOFJT HMJF D/TM
GYLP

5]:TJT Vwi I GG\ 5IZ6FD NXFJ[K[S[DGMU{7FIGS ; }BFSFZLG\ V\$ 38S
XFZLIZS OZLI FNDF\ I MUS VG[IAGI MUS jI ISTVM JrR[; FY'S TOFJT HMJF D/[
KP I MUS jI ISTVM SZTF IAGI MUS jI ISTVMDF\ XFZLIZS OIZI FN JW] 5]DF6DF\HMJF
D/[KP V08FU I MJGL IJ]JW 8\$IGSM VF; G4 5f6FI FD JUZ[XFZLIZS :JF:yI
HF/JJFDF\ DNN~5 YFI KP HI FZ[; FDFgI jI ISTVMDF\ XFZLIZS ZMUMJW] 5]DF6DF\
HMJF D/[K[T\YL T\MDF\ XFZLIZS OZLI FNG\ 5]DF6 JWfZ[HMJF D/[KP NZ\$ jI ISTV
; FZL ZLT[ÒJG ÒJJF DF8[5MTFG\ XFZLIZS :JF:yI HF/JJ\ HM. VP

XFZLIZS :JF:yI HF/JJF DF8[DF+ ; FZM BMZFS 5ZTM GYL 56 I MUI 5|DF6DA
S; ZTM VF; G4 5F6FI FD JUZ[56 SZJF HM. VP H|YL XFZLIZS :JF:yI H/JF. ZCP
:+LVM VG[5]-QFMGL XFZLIZS OZLI FNDA; FY'S TOFJT HMUF D/TM GYLP ; FDFgI ZLT[
T|J|DFGJFDA VFJ[K[S[DM8FEFU[51 JQF" VG[T|YL JW] p|DZGL jI ISTVMDA XFZLIZS
OZLI FNG| 5|DF6 JWFZ[HMUF D/[K[5ZT] 5]:TJT VwI I GGFA 5IZ6FDM 5ZYL VF
DFgI TFG| B0G YFI KP

5]:TJT VeIF; G| 5IZ6FD NXF"J[K[S[DGMU{7FIGS ; }BFSFZLG| V\$ 38S
VY'IJICGTFDA IMUS VG[IAGI MUS jI ISTVM JrR[; FY'S TOFJT HMUF D/[KP
IAGI MUS jI ISTVMDA IMUS jI ISTVM SZTF VY'IJICGTJ JW] 5|DF6DA HMUF D/[
KP IMUS jI ISTVM IJ|JW IMUS 5|I }ISTVM H|JL S[wI FG4 5F6FI FD4 VF; GM SZTL
CMUFYL p5ZFT VD\$ IGI DMG| 5F, G SZTL CMUFYL ÒJGDA 5MT[S\ S ; FY'S 5|'IT
SZTF CMI T|J| TG[, FU[K[HI FZ[IAGI MUS jI ISTVM ZMÒNL 5|'ITYL S8F/L HFI K[
VG[TG[5MTFG]ÒJG IGZYS , FU[K[VG[T|YL H SNFR ÒJG 5|tI [V6UDM 56 YFI
VG[T|MDA IMUS jI ISTGL ; ZBFD6LV[ÒJGDA VY'IJICGTJ JW] , FU[T|J| AGL

XS[T|YL NZ\$ jI IST 5MTFGF ÒJGDA S\ S ; FY'S 5|'IT SZ[TM TG|FYL T|VNGF ÒJGDA
VY'5}6TF pt5gG YFI H[T|VNGL DGMU{7FIGS ; }BFSFZLDA JWFZM SZL XSP

:+LVM VG[5]-QFMGL JrR[VY'IJICGTGFL AFATDA; FY'S TOFJT HMUF D/TM
GYLP ; FDFgI ZLT[VF56F ; DFHGF 5]-QFM VYM5FHGGI 5|'IT SZTM CMUFYL 5MT[
DCtJGL 5|'IT SZ[K[VG[:+LVM UCSFI "H|JL ; FDFgI 5|'IT SZ[K[T|JL ; FDFÒS
DFgI TF KP 5ZT] 5]:TJT ; XMWGGF 5IZ6FDM NXF"J[K[S[:+LVM VG[5]-QFMGL
VY'IJICGTJ JrR[; FY'S TOFJT HMUF D/TM GYLP 5]:TJT VeIF; DA V|D 56 HMUF
D/[K[S[H|NLvH|NL p|DZ WZFJTL jI ISTVMGL VY'IJICGTFDA ; FY'S TOFJT HMUF
D/TM GYLP

5]:TJT VeIF; GF 5IZ6FDMDA V|D 56 HMUF D/[K[S[DGMU{7FIGS

;]BFSFZL G\ V\ 38S VftDUFZJ Df\ I MUS VG[IAGI MUS jI ISTVM JrR[TOFJT
 HMUF D/[KP I MUS jI ISTVM SZTF4 IAGI MUS jI ISTVMDF VftDUFZJ JWFZ[
 5DF6DF HMUF D/[K[S\, FS , MSM 5MTFGL 5tI [DFGGL GHZ[H]V[K\ V\, [S[
 T]MIG[VftDUFZJ CMI K[HI FZ[S\, FS , MSM , 3]TFU]YYL 5LOFTF CMI K\ VFJL
 JRFZLS IEgGTF DF8[VG\ 5IZA/M HJFANFZ CMI K[H]F S[jI ISTGL ÒJGX{ L4
 T]MIGL HFIT4 IX1F64 VFY'Sv; FDFÒS NZHHM JUZP VCL\ I MUS ÒJGX{ L
 WZFJTL jI ISTVMDF\JW] 5DF6DF VftDUFZJ HMUF D/[KP SFZ6 T]VM I MUGL IJ]W
 5]ITVM H]L S[wI FG4 5F6FI FD IJ]W IGI DMG\ 5F, G JUZG[, LW[5MT[; FDFgI
 jI ISTVM SZTF ; FZ\ ÒJG ÒJL ZCI M K[T]M IJRFZ jI ISTG[JWFZG[JWFZ[
 VftDUFZJ WZFJTM CXP NZ\ jI ISTV[DGMU{7FIGS ;]BFSFZL D/]JL CMI TM
 VftDUFZJ ; FY[ÒJG ÒJ]HM. VP HM jI IST IGI IDT I MUS ÒJGX{ L V5GFJ[
 TM T[VftDUFZJ 5]S ÒJL XS[VG[DGMU{7FIGS ;]BFSFZL 5F%T SZL XSP 5]:TJT
 VeIF; DF\ :+LVM VG[5]-QFMGF VftDUFZJ JrR[; FY'S TOFJT HMUF D/TM GYLP
 T]DH H]NlvH]N pDZ WZFJTL jI ISTVMGF VftDUFZJ JrR[56 ; FY'S TOFJT HMUF
 D/TM GYLP

5]:TJT VwI I GGF 5IZ6FDDF\ V]D 56 HMUF D/[K[S[DGMU{7FIGS ;]BFSFZL
 G\ V\ 38S SFI DL 5]ITDF\ I MUS VG[IAGI MUS jI ISTVM JrR[; FY'S TOFJT
 HMUF D/[KP I MUS jI ISTVMDF IAGI MUS jI ISTVM SZTF SFI DL 5]IT JWFZ[
 5DF6DF HMUF D/[KP 5IZ6FD 5ZYL :5Q8 YFI K[S[IGI IDT I MUS]I F SZJFYL
 jI ISTGL SFI DL 5]ITDF\JWFZMYFI KP H[jI ISTG[DGMU{7FIGS ;]BFSFZL TZ0 , .
 HFI K[T]YL DGMU{7FIGS ;]BFSFZL D/]JF DF8[jI ISTV[I MUS ÒJGX{ L V5GFJJL
 HM. VP 5]:TJT VwI I GGF 5IZ6FDDF\ V]D 56 HMUF D/[K[S[:+LVM VG[5]-QFMGL
 SFI DL 5]ITVMDF\ TOFJT HMUF D/TM GYLP :+LVM VG[5]-QFMGL SFI 'E]DSF H]N
 CMI 5Z]T] AgGG[5MTFGL 5]ITYL V\ ; ZBM H VFGN VFJTM CXP 5]-QFMG[

HÐ VYM5FHGGL 5µIT VUtI GL , FUTL CX[TÐ :+LVMG[56 5MT[UCSFI "VG[
AF/pKZGL VUtI GL HJFANFZL EZL 5µIT SZL ZCL K[Tµ), FUT) CXp 5]:TJT
VwI I GGF\5IZ6FDDF\ VÐ 56 HMUF D?I) K[S[H)NLvH)NL pDZ 3ZFJTL jI ISTVM
GL SFI DL 5µITDA; FY'S TOFJT HMUF D/TM GYLP

5):TJT VwI I GGF\5IZ6FDDF\ VÐ 56 HMUF D/[K[S[DGMU{7FIGS ; }BFSFZLG)
V§ 38S ÒJG; ¶TMDFD\ I MUS VG[IAGI MUS jI ISTVM JrR[; FY'S TOFJT HMUF
D/[KP I MUS jI ISTVMDF\ IAGI MUS jI ISTVM SZTF JWFZ[5]DF6DF\ÒJG; ¶TMDF
HMUF D/[KP 5):TJT VwI I GGF\5IZ6FDDF\ :+LVM VG[5]-QFM JrR[ÒJG; ¶TMDFD\
; FY'S TOFJT HMUF D/TM GYL TÐH H)NLvH)NL pDZ WZFJTL jI ISTVMGF\ÒJGv
; ¶TMDFD\ ; FY'S TOFJT HMUF D/[K[51 JQF" VG[T[YL JW]pDZ 3ZFJTL jI ISTVM
SZTF 21 YL 35 JQF" ; }MLGL pDZ 3ZFJTL jI ISTVMDF\ JWFZ[5]DF6DF\ÒJG; ¶TMDF
HMUF D/[KP

5):TJT VeIF; GF\5IZ6FDDF\ V[56 HMUF D/[K[S[DGMU{7FIGS ; }BFSFZLG)
V§ 38S VftD; V DDF\ I MUS VG[IAGI MUS jI ISTVM JrR[; FY'S TOFJT HMUF D/[
KP I MUS jI ISTVMDF\ IAGI MUS jI ISTVM SZTF J3FZ[5]DF6DF\ VftD; V D HMUF

D/[KP I MUS jI ISTVMGL ÒJGX{ L IAGI MUS jI ISTVMGL ÒJGX{ L SZTF ; V D
JF/L CMI KP jI ISTV[5MTFGF DG 5Z ; V D ZFBJM H~ZL KP VftD; V D jI ISTG[
DGMU{7FIGS ; }BFSFZL TZO , . HFI KP T[YL HM jI IST I MU áZF VftD; V D S[/J[
TMT[VMDF\ RMSS; ZLT[DGMU{7FIGS ; }BFSFZLG) 5]DF6 J3FZL XSFI P 5):TJT
VeIF; DF\ VÐ 56 HMUF D/[K[S[:+LVM VG[5]-QFM JrR[VftD; V DDF\ TOFJT
HMUF D/TM GYLP H)NLvH)NL pDZ 3ZFJTL jI ISTVMGF\ VftD; V DDF\ TOFJT HMUF
D/TM GYLP

5):TJT VeIF; GF\5IZ6FDDF\ HMUF D/[K[S[DGMU{7FIGS ; }BFSFZLG) V§
38S TF6DF\ I MUS VG[IAGI MUS jI ISTVM JrR[; FY'S TOFJT HMUF D/[

K[IAGv I MUS jI ISTVMDA I MUS jI ISTVM SZTF TF6 J3] 5]DF6DA HMUF D/[KP
I MUS jI ISTVM IJW I MUS 5]ITVMGM IGI IDT p5I MU SZJFYL jI ISTGF DUHG[
XFAT SZL T[GL TF6DA 38FOM SZ[KP 36F I MUS jI ISTG[5MTEG[V]UF VG]EJM YIF K[
S[HI FZ[T]VM TF6GL 5IZI: YITDA CMI K[ti FZ[wI FGDA A]; L HJFYL T]VMGL TF6DA
38FOM YTM CMI P

VeIF; NXFJ[K[S[wI FGYL TF6DA;]RS ZLT[38FOM HMUF D?I M HI FZ[ALÒ
AFH] IAGI MUS jI ISTVM VFJL SM. 8]YIGSGM p5I MU G SZTF CMUFYL T]MDF
TF6G] 5]DF6 J3] HMUF D?I] CMI T]] AGL XSP JTDFG ; DI GL ZMÒNL EFUNMO
EZL VG[; TT : 5WFtDS 5IZI: YITDA V] I F ALÒ 5]SFZ[TF6 pt5gG YGFZL I: YIT
; HFITL H ZC[K[T]YL HM]I IST IGI IDT wI FG4 5]6FI FD JUZ[SZTL CMI TM TF6HGS
5IZI: YITDA 56 jI IST 5MTEGF VFJ]UM 5Z SFA] ZFBL XS[T]YL NZ] jI ISTV[NZZMH
YNDM ; DI 56 SF-L I MU SZJF 5]IF; SZJM HM. VP 5]: T]T VwI I GGA 5IZ6FDDA
VD 56 HMUF D/[K[S[: +LVM VG[5]-OFM JrR[TF6DA TOFJT HMUF D/TM GYLP
T]G] XSI SFZ6 V[CMI XS[S] : +LVM VG[5]-OFMGF SFI M E, [H]NFvH]NF CMI 5ZT]
AgG[5MTEGF SFI MDA VD] D]S[LVM VFJTL CX] VD] ; D: I FVM pt5gG YTL
CX[T]YL AgG[TF6GM VG]EJ YTM CX[T]YL T]VMGL TF6 JrR[TOFJT HMUF GCL
D/TM CMI P 5]: T]T VeIF; GF 5IZ6FDDA VD 56 HMUF D/[K[S[H]NLvH]NL pDZ
3ZFJTL jI ISTVMGL TF6 JrR[SM. ; FY'S TOFJT HMUF D/TM GYL JTDFG 5IZI: YIT
H V]UL K[S[jI ISTVMDA ; DH XIST VFJ[ti FZYL , . G[Dti] ;]ML ; TT TF6
pt5gG SZGFZ 5IZI: YIT ; HFIT H ZC[K[VG[pDZGF NZ] : 8]H[jI ISTV[TF6GM
; FDGM SZJM H 50[KP T]YL H SNFR H]NLvH]NL pDZGL V; Z TF6 5Z YTL
GCL\CMI P

5]: T]T VeIF; GF 5IZ6FDDA VD 56 HMUF D?I] K[S[DGMU{7FIGS ;]BFSFZLG]
V]S 38S ; FZF56FDA I MUS VG[IAGI MUS jI ISTVM JrR[; FY'S TOFJT HMUF
D?I M KP I MUS jI ISTVMDA IAGI MUS jI ISTVM SZTF ; FZF56FG] 5]DF6

JWFZ[HMUF D/[KP 5]:TJT VwI I GDF\ ; FZF56FGM VY" jI IST T[GL 5P'ITVM S8, L
; FZL ZLT[5FZ 5F0[K[TP H TG]:JF:yI S[] K[T[UM SZJFDA VFJ[K[VCL I MUS
jI ISTVMDF\ ; FZF56FG\ 5]DF6 ; F5]IF ZLT[JW] HMUF D?I] K[TG\ XSI SFZ6 V[CM.
XS[S[I MUS jI ISTVMGL ÒJGX{ L IGI IDT CMI K# p5ZFT wIFG H[UL 5P'ITYL
T[VMGL JRFIZS X]wW YFI K[TYL :JFEFIJS ZLT[H T[MM IAGI MUS jI ISTVMSZTF
5MTFGL 5P'IT JW] ; FZL ZLT[SZL XS# p5ZFT I MUS ÒJGX{ LYL jI ISTG\XFZLIZS
VG[DFGI; S :JF:yI 56 ; FZL ZLT[H/JFI K[HIFZ[IAGI MUS jI ISTVMXFZLIZS
VG[DFGI; S ZLT[I MUS jI ISTVM SZTF 5FK/ ZCL HFI KP I MU H[UF 5]IF; YL
jI ISTGF ; FZF56FDF\JWFZM SZL XSFI P 5]:TJT VeIF; GF 5IZ6FDDF\ V[D 56
HMUF D?I] K[S[: +LVM VG[5]-QFMGF ; FZF56F JrR[; FY'S TOFJT HMUF D/TM GYLP
T[DH H]NLvH]NL pDZ 3ZEJTL jI ISTVMGF ; FZF56F JrR[56 ; FY'S TOFJT HMUF
D/TM GYLP

5]:TJT VeIF; GF 5IZ6FDDF\ V[D 56 HMUF D?I] S[DGMJ(7FIGS ;]BFSFZLG\
V[S 38S ; FDFgI V; ZSFZSTFDA I MUS VG[IAGI MUS jI ISTVM JrR[; FY'S
TOFJT HMUF D/[KP I MUS jI ISTVMDF\ IAGI MUS jI ISTVM SZTF ; FDFgI
V; ZSFZSTFG\ 5]DF6 JWFZ[HMUF D/[KP VCL ; FDFgI V; ZSFZSTFDA\FXZLIZSv
DFGI; S :JF:yI GM ; DFJX SZJFDA VFJIM KP IJ5], 5]DF6DASZJFDA\FVFJ[,
; XMMGYL ; FIAT YI] K[S[XFZLIZSvDFGI; S ZLT[:J:Y jI ISTVM 56 IGI IDT I MU
5]8L; YL :J:Y Y. HFI K[VG[T[VMG[VFQFIW , [FGL H~Z 50TL GYL TM HI
jI ISTVM :J:Y K[VG[I MU SZ[K[TGfYL T[GL XFZLIZSvDFGI; S :JF:yI DfJWFZM
YFI K[TYL IAGI MUS jI ISTVM SZTF T[VM 5MTFG\ SFI " ; FZL ZLT[SZL ; FDFgI
V; ZSFZSTF JWFZL XSTF CXP :JF:yI VUJG\ V[S ;]+ K[S[IADFZ 50IF 5KL NJF
, [UL T[SZTF IADFZ H G 50FI T[UF 5]IF; M SZJFP VF 5]I tGMDFGM V[S 5]IF; K[I MJP
5]:TJT ; XMMGGF 5IZ6FDMDf\ V[D 56 HMUF D?I] K[S# :+LVM VG[5]-QFM JrR[
; FDFgI V; ZSFZTFDA ; FY'S TOFJT HMUF D/TM GYLP VF p5ZFT V[D 56

HMF D/[K[S[HNLvHNL pDZ 3ZFJTL jI ISTGL ; FDFgl V; ZSFZSTFDF; FY'S
TOFJT HMF D/[K[51 JQF"VG[TYL JW]pDZ WZFJTL jI ISTVM SZTF 21 YL 35 JQF"
T[DH 36 YL 50 JQF";]MLGL pDZ WZFJTL jI ISTVMDF; FDFgl V; ZSFZSTF JWFZ[
5]DF6DF HMF D/[KP TG\ XSI SFZ6 V[CM. XS[S[50 JQF" VG[TYL JW] pDZGL
jI ISTVM XFZLIZS ZLT[YFSL U. CMI KP HI FZ[21YL 55 VG[36 YL 50 JQF";]MLGL
pDZ 3ZFJTL jI ISTVM XFZLIZS ZLT[; 1FD CMI KP T[DH VF pDZ[SFI "SZJFGM
H]; ; MT[VMD\JWFZ[CMI KP

5]:TJT VeIF; GF 5IZ6FDDF\VD 56 HMF D/[K[S\ DGMU{7FIGS ;]BFSFZLG\
V\ 38S VftDctIFGF IJRFZMDF I MUS jI ISTVM VG[IAGI MUS jI ISTVM JrR[
; FY'S TOFJT HMF D/TM GYLP p5ZFT :+LVM VG[5]-QFMGF JrR[56 VftDctIFGF
IJRFZMDF; FY'S TOFJT HMF D/TM GYLP T[DH HNLvHNL pDZ WZFJTL jI ISTVMGF
VftDctIFGF IJRFZM JrR[56 ; FY'S TOFJT HMF D/TM GYLP

jI ISTVMGL 5IZI:YITHgl IR\TFG[VG\ 5IZA/M V; Z SZ[KP jI ISTGL
DGMU{7FIGS ;]BFSFZLGL ; FY'S V; Z T[V MGL 5IZI:YITHgl IR\TF 5Z HMF D/[KP
5]:TJT VeIF; G\ 5IZ6FD NXF"J[K[S[VMKL DGMU{7FIGS ;]BFSFZL 3ZFJTF jI ISTVM
DF DwI D VG[JW] DGMU{7FIGS ;]BFSFZL 3ZFJTF jI ISTVM SZTF 5IZI:YIT Hgl
IR\TFG\ 5]DF6 JW] HMF D/[KP 5]:TJT 5IZ6FD 5ZYL VD SCL XSF I S[jI ISTDF\HM
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5]I tGM SZJF HM. VP VDFDFGM V\ 5]I tG I MUSI F KP VeIF; MGF 5IZ6FDM NXF"J[K[
S\ IGI IDT I MUYL DGMU{7FIGS ;]BFSFZL JWFZL XSF I KP HYL 5IZI:YITHgl
IR\TFDF\38F0MY. XSP

5]:TJT VeIF; GF 5IZ6FDDF\VD 56 HMF D/[K[S[DGMU{7FIGS ;]BFSFZLGL
; FY'S V; Z 5]U8IJS TIR\TF 5Z HMF D/[KP VMKL DGMU{7FIGS ;]BFSFZL 3ZFJTL
jI ISTVMDF DwI D VG[JW] DGMU{7FIGS ;]BFSFZL 3ZFJTL jI ISTVM SZTF 5]U8IJS T
IR\TFG\ 5]DF6 JWFZ[HMF D/[KP 5]U8IJS T IR\TF V[D }/ E }T S[

:JEFJUT S[5]SITUT IRTE KP VFD KTF\ DGMU{7FIGS ; }BFSFZLGL V; Z VF IRTE
5Z HMUF D/[KP

VFD ; DU| ; XMWG VwI I GDF\ VpD HMUF D/[K[S[IAGI MUS jI ISTVM SZTF
I MUS jI ISTVMDF\ DGMU{7FIGS ; }BFSFZLGL 5]DF6 JWFZ[HMUF D/[KP VF p5ZAT
5]:TJT VwI I GDF\ VpD 56 HMUF D/[K[S[I MUS jI ISTVM SZTF IAGI MUS
jI ISTVMDF\ 5IZI:YITHgI 5]U8IJST IRTE JWFZ[5]DF6DF\ HMUF D/[KP jI ISTGL
; }BFSFZLGM VF3FZ XFZLIZSvDFGI; S :JF:yI 5Z ZC|, M KP XFZLIZS VG[DFGI; S
:JF:yI HF/JJF DF8[I MU V[S ; FZMDFU" ; FIAT YI M KP JTDFG ; DI DF\ I MUG[V[S
WD" GCL A<S[IJ7FG TZLS[JWFZ[U6JDF\ VFJ[K[I MUGM VY" VC\ DF+ VU
S; ZTM S[VF; GMS[` JFrKM JF; GL 5]S[I F TjMI; DLT SZJFDF\ VFjI M GYLP 5ZT[
IGI IDT wI FG4 5]6FI FD4 I DvIGI DG\ 5F, G JUZGF VY'DF\ , jDF\ VFjI M KP ZMU
YFI tI FZAFN TGM . , FH SZJM TGF SZTF ZMU pt5gG YFI T[5C|, F TG[V8SEJJM
HM. V[VF DF8[I MUS ÒJGX{ L V5GFJJL HM. Vp 5]tI S XF/FvSM, jHDF\ I MUG\
IX1F6 OZÒI FT AGEJJ\ HM. V[HYL AF/SMG[5C|, YL H I MU VUJG\ ; FZ] IX1F6
VG[TF, LD D/[HYL TjMGL UIE" T XISTVM BL, L p9p p5ZMST AFATM 5Z NZS
1F+DF\ ZC|, jI ISTVM UVELZTFYL IJRFZ SZLG[I MUS ÒJGX{ L V5GFJL XS[KP VF
5IZzD DF+ jI ISTGF\ 5MTFGF DF8[H GCL 5ZT[TjMGF S]A4 ; DFH VG[N]X DF8[
H GCL4 5ZT[; DU| IJ` J DF8[VtI T 0/NFI L GLJ0X[TjDF\ SM. XS GYLP

5.5 EIJQI DF\ VFU/ VeI F; DF8GF ; }RGM

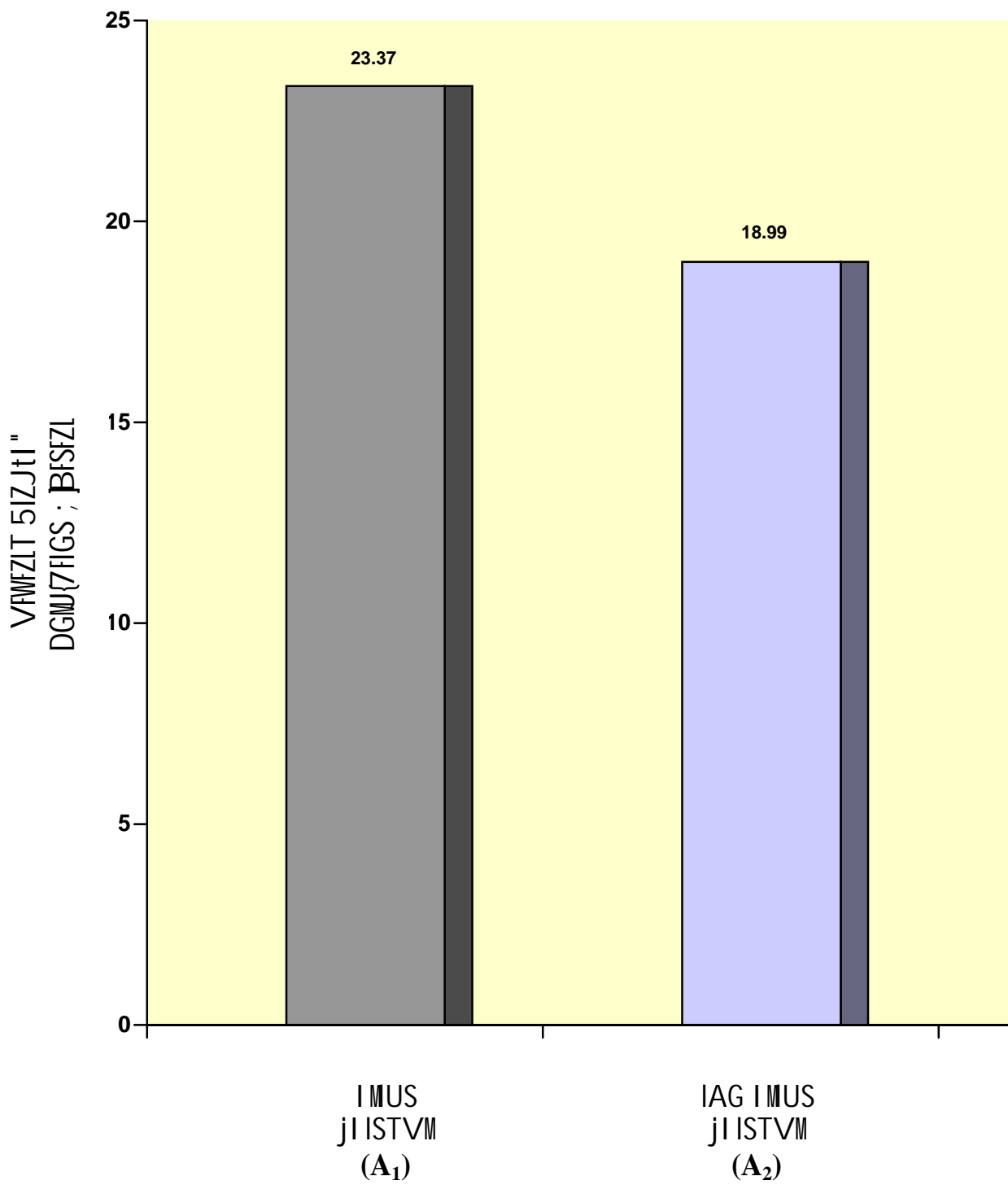
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KP 5]:TJT ; XMWG VwI I GDF\ H[DI FNFVM ZCjF 5FDL K[TjGM HM VF H INXFDF\
EFJL ; XMWG YFI TM I MuI pS|, D/[JL XSFI 4 TjYL GLR[NXFjJ|, S]B, FS ; }RGM
5]tI [EFJ ; XMWSG\ wI FG NMZL XSFI P

1 5F%T 5IZ6FDMGF jI F5S ; FDFgI LSZ6 DF8[IGNX'GF SNG[CH] DM] ZFBjDF\

- VFJ[TM ; RMB 5IZ6FD D/L XSP
- 2** U]HZFTL EFQFF I; JFI Vgl EFQFF HF6GFZ jI ISTVM 5Z VFJM VeIF; SZL T[DGL ; ZBFD6L SZL XSFI P
- 3** jI ISTVMGL DGMU{7FIGS ;]BFSFZL VG[5IZI:YITHgI 5|U8 IJST IRTFG[36F 5IZJtIM V; Z SZTF CMI K[T[DfYL 5]:TJT VeIF; Df TM DI FINT 5IZJtIMGM VeIF; SIM KP VF p5ZFT 56 Vgl 5IZJtIMG[wI FGDF, . G[EIJQI Df VeIF; Y. XSP
- 4** I MU VG[DGMU{7FIGS ;]BFSFZLG[; FY[; FS/LG[AC] H]H VeIF; MYIF K[VF 5IZJtIMG[, . G[EIJQI Df HM JW] BDF6 SZJFDF VFJ[TM:508 TFZ6M VFJL XSP
- 5** VF VeIF; Df IMUS VG[IAGIMUS jI ISTVM JrR[DGMU{7FIGS ;]BFSFZL VG[5IZI:YITHgI 5|U8 IJST IRTFDF TOFJT K[S[S]D T[D HF6JFGM 5|IF; SZJFDF VFjIM KP 5ZT] VCLV S H ; D]C 5Z IMUGL TF, LD 5C[, F VG[IMU GL TF, LD VF%IF AFN DGMU{7FIGS ;]BFSFZL VG[5IZI:YITHgI v5|U8IJST IRTFDF OZOFZ HMUF D/[K[S[S]D T[VU] VeIF; Y. XS[TM JW] ; RMB TFZ6M VFJL XSP
- 6** 5]:TJT VeIF; Df Df+ 5ZI6T jI ISTVMGM H VeIF; SZJFDF VFjIM KP VF I; JFI Df+ V5ZI6T jI ISTVMG[wI FGDF, . G[ALHF 5IZJtIM ; FY[; FS/LG[56 VFJM VeIF; Y. XSP
- 7** 5]:TJT ; XMMGDF 5] GFJ, L 5wWITGM p5IMU SZJFDF VFjIM KP J3] UCG VeIF; Df8[Vgl ; XMMG 5wWITGM p5IMU SZL XSFI P

Vf, B Gv 1
IMUS VG[IAG IMUS jI ISTVIGL DGMU{7FIGS ; BFSZL NXFJTM:TEF, B

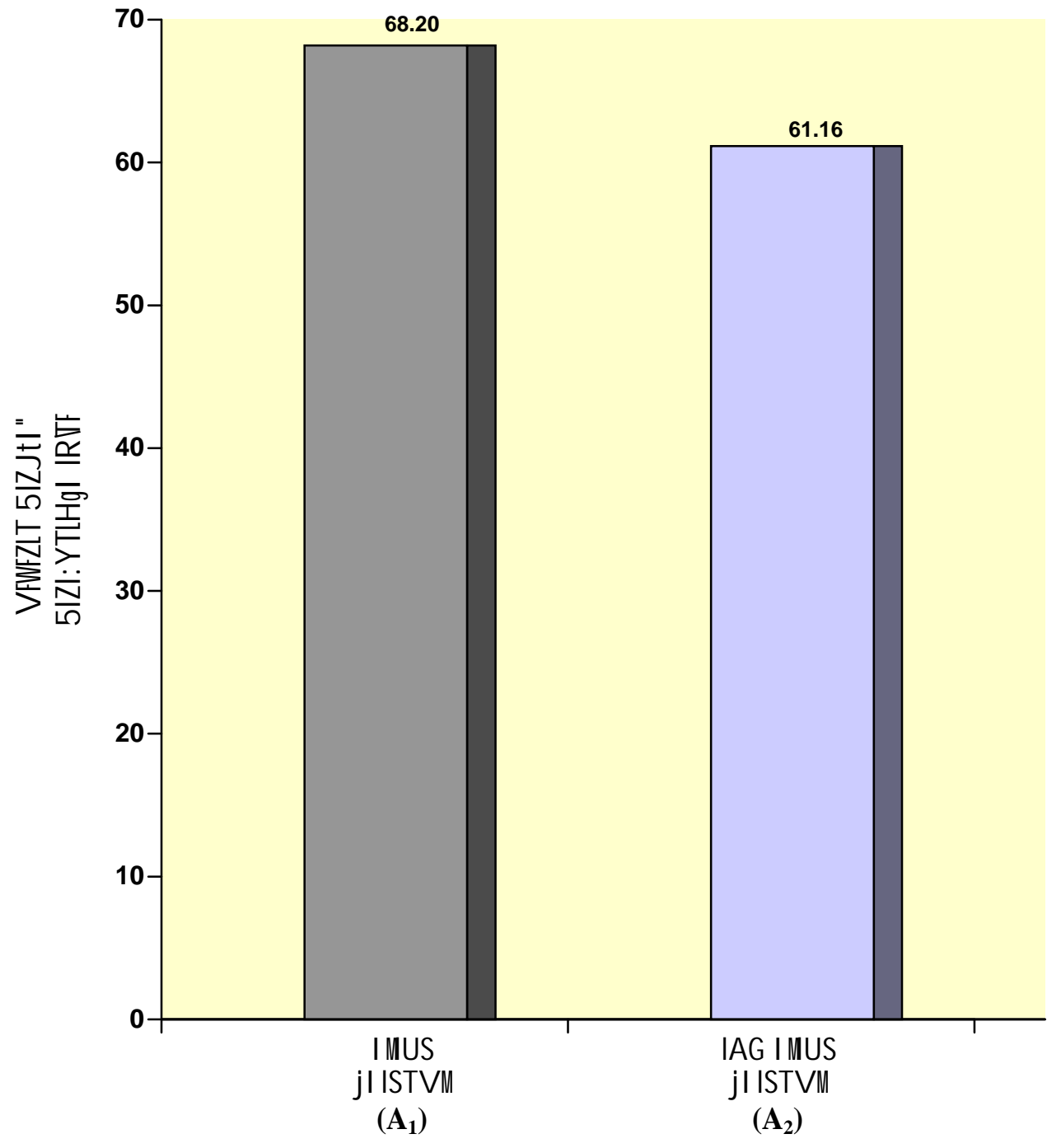
■ A₁—IMUS jI ISTVM
■ A₂—IAG IMUS jI ISTVM



:JT+ 5IZJti "

$V_f, \beta G v_2$
IMUS VG[IAG IMUS jI ISTVM]GL 5IZI:YTLHgI IRTF NXFJTM:TEF, β

■ A_1 - IMUS jI ISTVM
■ A_2 - IAG IMUS jI ISTVM

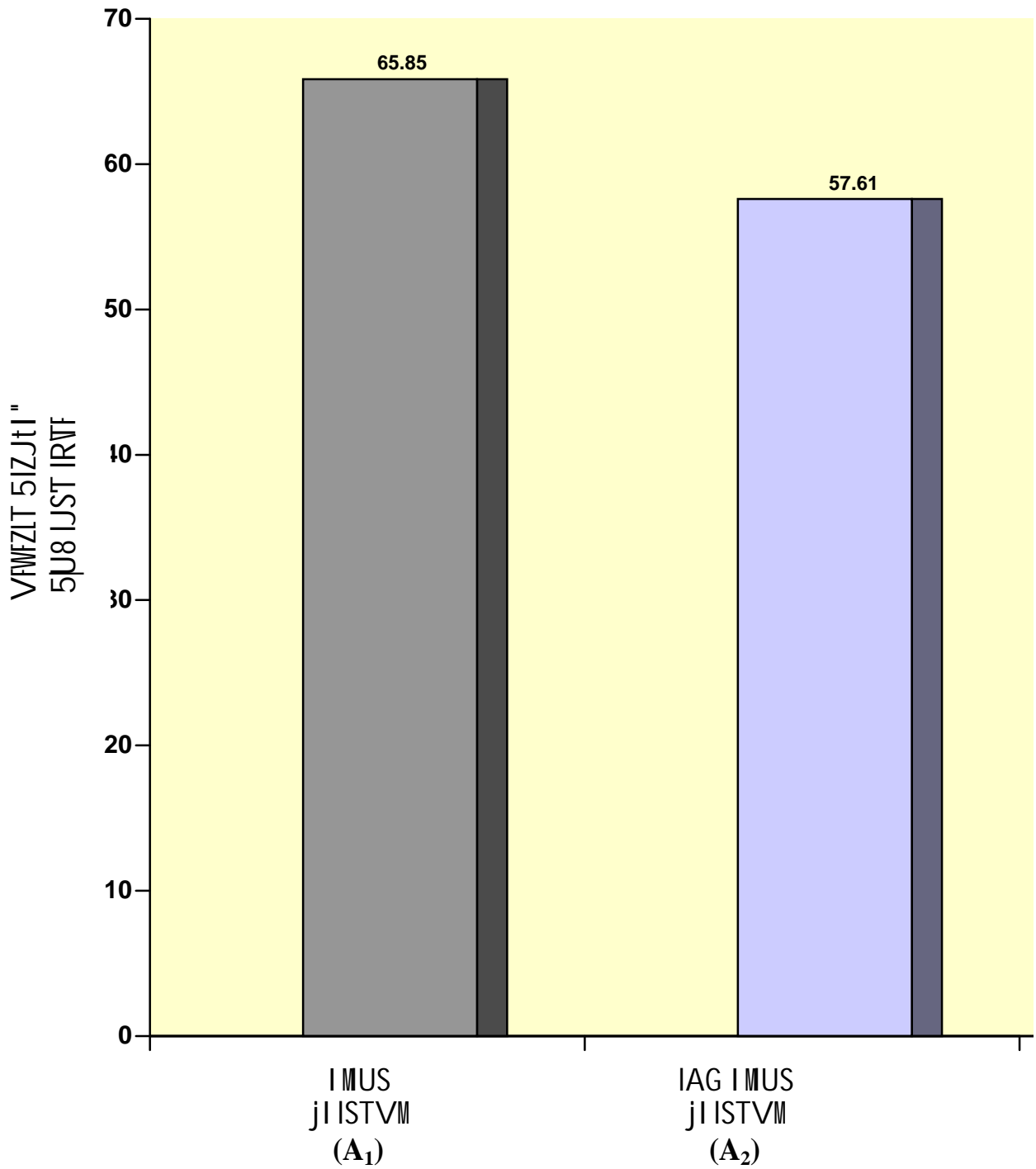


:JT+ 5IZJtI"

Vf, B Gv 3

IMUS VG|IAG IMUS jI ISTVMGL 5U8 IJST IRVF NXFJTM: TEF, B

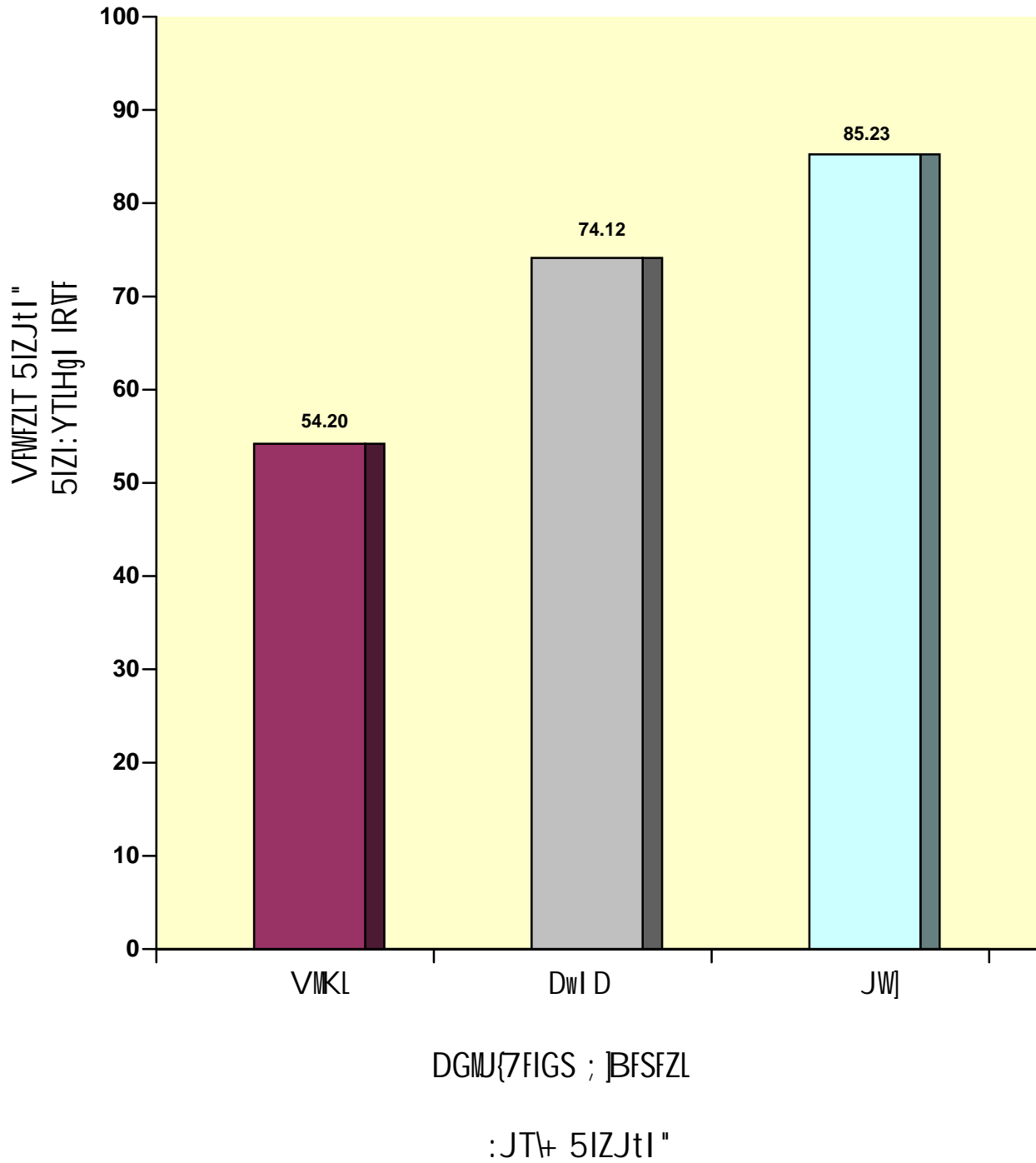
- A₁ - IMUS jI ISTVM
- A₂ - IAG IMUS jI ISTVM



:JT+ 5IZJtI "

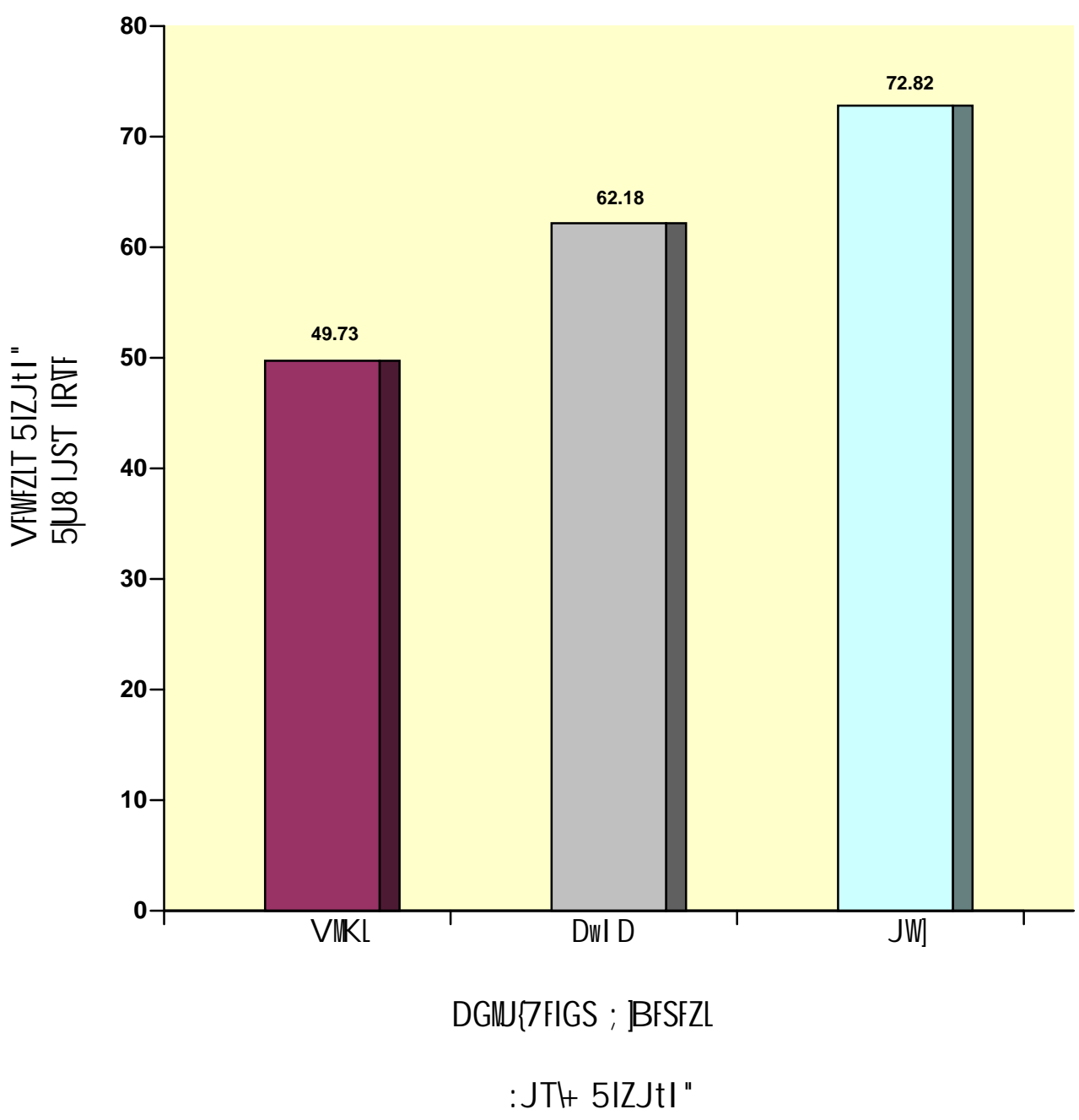
Vf, B Gv 4

DGMU{7FIGS ; }BFSFZLGF ; NEDFA5IZI:YTLHGI IRVF NXFJTM:TEF, B



Vf, BGV 5

DGMU(7FIGS ; BBSFZLGF ; NEDFA5U8 IJST IRVF NXFJTM:TEF, B



“ A Comparative study of yogic and non yogic person’s psychological well- being and state - trait anxiety. ”

cc I MUS VG[IAGI MUS jI ISTVMGL DGMJ{7FGLS ; JBSFZL VG[5IZI:YITHgI v 5JU8 IJST IRTFGM T], GftDS VeIF; P cc

DFUNX'S ov
OFWP TZI, SF V[, P hf, FJFIOIF
DGMJ7FG IJEFUP
zLDIT VFZPVFZP58[, DIC, F SM, H4
V[:8#G ; M; FI 8L4
ZFHSMBv360005

; XWMS ov
155/LIF C\ FP VJGP
M.A., M.Phil
DGMJ7FG EJG
; FZFQ8=I JGJI; 8L
ZFHSMBv360005

v0 GD|IJGTL ov

5LPVIRPOLP GL IOUJ D/JJF VJS XWIGAW (**Dissertation**) , BJFGM CMI KP
C\ DGMJ7FG IJQFI Df V[T\ FZ SZL ZCL KP XW IGA3GF IJQFI TZLS[D\ “ I MUS
VG[IAGI MUS jI ISTVMGL DGMJ{7FIGS ; JBSFZL VG[5IZI:YITHgI v5JU8IJST
IRTFGMT], GftDS VeIF; ” 5; N S I M KP VF DF8[; FY[VF5[, L 5\ GFJI, VMDF
SM. 56 HuIFV[TDFZL VM/BF6 (**Identity**) G VFJL HFI T[GL TS\NFZL ZFBL VF
5\ GFJI, T\ FZ SZJFDF VFJL KP 5\ GFJ, LDF VF5[, L DFICTLGL ; ti TF p5Z H
; XWGGGL ; 0/TF S[IG00/TFGM VFWFZ ZC[K[V[TD[HF6M KMP TD[VF5[, L DFICTL
; 56" BFGUL ZFBJFDF VFJXP VFXF K[S[TD[5\ GFJI, Df 5)K[, F AWF 5\ GMGF
pTZM VF5L VF IJnfv; XWVG SFI Df; CSFZ VF5XM VJL IJGTL KP

VFEFZ ; C4

VF5GL IJ`JF; J
155/LIF C\ F VJGP

j I ISTUT DFICTL 5+S

! P	GFD	0
ZP	HFIT	0
#P	pDZ	0
\$P	XqFI6S , FI SFT	0
5P	, uG NZHHM	0 5Zl6Tq IJWZq IJWJF
&P	SßAGM5ßFZ	0 ; VßT q IJEST
*P	SßAGL DFI; S VFJS	0
(P	AF/SMGL ; bIF	0 Vßq A[q A[YL JW]
)P	SßADF\SF D SZGFZGL ; bIF	0
! _P	TDFZL XFZLZS TNZ: TL	0 ; FZLq DwI D q GA/L
!!P	TDFZF , uG ÒJGG[Sß, F J0F"YIF m	0
! ZP	TDG[TDFZF ÒJGYL ; VTMF K[m	0
! #P	X)TD[TDFZF ÒJGDF\AGTF AGJNG[WFIDS εI08YL D}, JMKMm	0 CF q GF
! \$P	TD[SI F C[TYL I MJ IS F SZJF 5ZFI F m	0
! 5P	TDG[SM IADFZL , FU]50L K[m	0 CFq GF
		CMl TM SM m Ppppppppppppppppppppp
! &P	I MJ SZJFYL IADFZLDFZFACT Y. K[m	0 CF q GF
! *P	VFIYSv ; FDFIHS NZHHM	0 prR q DwI D q IGdG
! (P	SßADFqjI J; FI DFIGS8GL jI IST 5F; YL 8ßMD/L ZC[K[m	0 CFqGF
!)P	TD[VTD]BL KMS[AIC'D]BL m	0
Z_P	TD[:5WFtDS J, 6 WZFJM KMm	0 CF q GF
Z! P	jI J; FI GM5ßFZ	0
ZZP	IRTF HgDFJ[T]L 5IZI: YITD\TD[:JIGI 6 ZFBL XSM KMm	0 CF q GF
Z#P	Vgl IGS8GL jI ISTVM; D1F TDFZF VFJUM TD[VIE]I ST SZL XSMKMm	0 CF q GF

STAI Form- Y₁

; RGF ov

GLR[SB, FS IJWFGMZHSI F"K[S[H[IJWFGMG, MSIM[5MTFG]J6G SZJF DF8[p5I MU
 SI MKP NZS IJWFGM JFRMVG[V F 1F6[TD[H[VGEJ JTF CMT[G[wI FGDF\ZFB LG[; FD[
 VF5[F RFZ IJS<5MDFYL TDG[H[IJS<5 , FU] 50TM CMI V[IJS<5 DF8GF SPDG[OZT[JT]
 SZNP VICV F VFU/ SM ; FRMS[BMBM HJFA V[U] K[GCLP SM V[S IJWFG DF8[JW] 50TM
 ; DI OF/JXMGCL4 5ZV] TDFZL CF, GL , FU6LVMG[pD ZLT[J6G SZTF HJFA VF5MT[
 H~ZL KP

		IA, S, GCL	S\ S VX	DCNŸVX	VITXI
01.	C]XAT VGEJ]K	1	2	3	4
02.	C]; ZI1FTT VGEJ]K	1	2	3	4
03.	C]TU K	1	2	3	4
04.	C]:GFI IJS TF6 JF/LI:YIT VGEJ]K	1	2	3	4
05.	C]ZFTV VFZD VGEJ]K	1	2	3	4
06.	C]VXAT VGEJ]K	1	2	3	4
07.	C]CF, DA; EIJT NNUL 38GFL AFAT[IRTF SZ] K	1	2	3	4
08.	C]; VMFL56] VGEJ]K	1	2	3	4
09.	C]EI ELTT VGEJ]K	1	2	3	4
10.	C]; BNFI L56] VGEJ]K	1	2	3	4
11.	C]VFtDIJ` JF; VGEJ]K	1	2	3	4
12.	C]UEZFD6 VGEJ]K	1	2	3	4
13.	C]Z3JFI F56] VGEJ]K	1	2	3	4
14.	C]VIG6F1 STF VGEJ]K	1	2	3	4
15.	C]ZFT 3ZJ]K	1	2	3	4
16.	C]; VMFV T1%T VGEJ]K	1	2	3	4
17.	C]IRVFTZ K	1	2	3	4
18.	C]URJ6 VGEJ]K	1	2	3	4
19.	C] VOUTF VGEJ]K	1	2	3	4

20.	C) VFGN VGJEJ]K}	1	2	3	4
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STAI Form- Y₂

; RGF ov

VCLN F S}B, FS IJWFGM ZH} SI F" K[S} H[IJWFGMGM, MSM[5MTFG} J6G SZJF DF8[p5I MU SI M K} NZ} IJWFGM JFRM VG[TD[; FDFgI ZLT[S}J} VGJEJM KMTG[wI FGDF} ZFBLG[; FD[Vf5], F RFZ IJS<5MDFYL TDG[H[IJS<5, FU]50TM CMI V[IJS<5 DF8}GF SDGL OZT[JT/ SZM VCLN F VFU/ SM. ; FRMS[BMBM HJFA V}J}K[GCLR SM. V} IJWFG DF8[JW] 50TM; DI OF/JXMGCLP 5ZT]TD[; FDFgI ZLT[S}J} VGJEJM KMTG} J6G SZTF HJFAG[5; N SZMT[H~ZL K}

		DMB}EFU[SI FZ} GCLV	SI FZ}	JFZJFZ	DMB}EFU[
21.	C) VFGN VGJEJ]K}	1	2	3	4
22.	C)UEZFD6 VG[VH}M VGJEJ]K}	1	2	3	4
23.	C)DFZL HFT ; FY[; V}8TF VGJEJ]K}	1	2	3	4
24.	C). rK[S} ALHF, MSM; }BL N}FI K[T}M C)56 ; }BL AGL XS}	1	2	3	4
25.	C)IG00/TF H}J}VGJEJ]K}	1	2	3	4
26.	C)VFZFD VGJEJ]K}	1	2	3	4
27.	C)XFT VG[:J:Y K}	1	2	3	4
28.	DG[V}J}, FU[K[S} D}S}, LVM V} 5KL V} V}JTL ZC[K} H}YL C)T}DFYL ACFZ V}JL XSLX GCLP	1	2	3	4
29.	C)SM S AFAT S} H[DCTJGL CMI GCLVTF IJX[JWFZ[50TL IRVFS~ K}	1	2	3	4
30.	C); }BL K}	1	2	3	4
31.	C)B, [SZTF IJRFZM 3Z}J]K}	1	2	3	4
32.	DFZFD}Vf}DIJ` JF; GMV}EJ K}	1	2	3	4
33.	C); , FDTL VGJEJ]K}	1	2	3	4
34.	C); C} F. YL IG6" , . XS}K}	1	2	3	4
35.	C)V; DY"TF VGJEJ]K}	1	2	3	4
36.	C); V}8 K}	1	2	3	4
37.	S}B, FS IAGDCTJGF IJRFZM DFZF DUHDF} Rf<I F SZ[K[VG[T]DG[C}ZFG SZ[K}	1	2	3	4
38.	C) IGZXFV}MG[V}B, L pU}TFYL , p K}S} C) TDG[DFZF DUHDFYL ACFZ SF-L XSTL GYLP	1	2	3	4
39.	C)}= jI IST K}	1	2	3	4
40.	HI FZ[C)DFZL TFH}TZGL V UT AFATM VG[, FEMIJX[IJRF~ K}tI FZ[C)DFGI; S TUIN, L S[1	2	3	4

DFGI; S TMEFGL VJ:YFDF\VFJL HFp KP				
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P.W.B.

; RGF ov

:Jf:yl 4 ; BfSFZL4 J, 6M VG[Z; J|Jwl lJXGF 5| GM GLR[VF5JFDF\VFJ| F KP
 VF5G[lJGVL SZJFDF\VFJ|K| HM VF5GM HJFA cc; FRMcc CMI TMHJFADF\ccCFcc p5Z VG[
 HM HJFA ccBMBMcc CMI TMHJFADF\ccGFcc p5Z BZFL s f G|IGXFG SZMP ; FRF S|BMBF
 HJFAM H|J|S X|GYLP VF5|VF5|, L AWL DFICTLGL U|TTF HF/JJFDF\ VFJXP VF5GF
 ; CSFZGL DG[V5|FF KP IGBf, ; TF5|S HJFA VF5XMP

1.	; DU ZLT[C]SCLX S[DF~ :JF:YI ; F~ KP	CF q GF
2.	DFZL pDZ VG[DFZF JTFJZ6GF ; NE'DFAC VgI GL T], GFDA; FZL I:YITDAKP	CF q GF
3.	E TSE/DADEFZ H FZ H~Z CTL t FZ D ; FZL V L ; CF D /JL KP	CF q GF
4.	DG[ÖJG S\ ÖJJF H J , FUT GYLP	CF q GF
5.	CD6fvCD6F DG[TFGJGM DFGI; S AMHGM VG EJ YFI KP	CF q GF
6.	SM. JFZ C DFZL HFTG[GSFDL U6]KP	CF q GF
7.	S\ S 5F%T SI FGMDG[VFGN KP	CF q GF
8.	C G6I , JFDF; 1FD K V JMDG[VG EJ YI MKP	CF q GF
9.	DG WFZ6F CTL T SZTF ÖJG AC Z KP	CF q GF
10.	C DFZL HFTG[DFZL GFBL XS]T JMD JRFZ SI MCTMP	CF q GF
11.	DFZL AFATDF\DFZ H HM V K T D /JJFG G; LA 5Z VFWFZLT GYLP	CF q GF
12.	CD6fvCD6F C RI0I F56FVG[U]; FHGS :JEFJGM VG EJ S~ KP	CF q GF
13.	CD6fvCD6F DG[V JMVG EJ YFI K[S[C]; DU ZLT[DFZF SFI M; FZF ZLT[5FZ 5FO]KP	CF q GF
14.	DG[CD6F V J , FuI F SZ K S[DFZ XIST JW Sq :JF:yl JWS VFQFWGL H~Z KP	CF q GF
15.	IJ`JDFAC DFZL HFTG[V S, M V S, L VG EJ]KP	CF q GF
16.	CD6FYL DG[DFYFGMN B JMZCI F SZ KP	CF q GF
17.	DG[V J , FU K S[C VgI , MSMH B, M H B, L SFDGL jI IST KP	CF q GF
18.	DFZL I; wWLG[SM. IAZNFJ TMC UFZJ VG EJ]KP	CF q GF
19.	ZMAZMHGL 5 ITVIML C VFGINT YJF ; 1FD KP	CF q GF
20.	VF DFZL ÖNUIGf pTD JQFMKP	CF q GF
21.	DFZL HFTGMH EMJ , p T JMIJRFZ DFZF DGDA3 I F SZ KP	CF q GF
22.	C H SM. I:YITDAD Sp K S DG[H S\ YFI K TGMVFWFZ :J VDFZF 5Z KP	CF q GF
23.	CD6fvCD6F C ; TT D hJ6EZLI:YITDFACM VFJMVG EJ YFI KP	CF q GF
24.	DG H ; CF D/L K TGFYL C B X K 5 ZT%T KP	CF q GF
25.	C ; 5 56[:J:Y VG IGZML K V J DG , FU KP	CF q GF
26.	D H ZLT[DFZL HJFANFZL p9FJL K T ZLT[DG ; VMF J?I MKP	CF q GF
27.	s5Zl6T DF8 f AWL H AFATMG wI FGDA, TF DFZF , uGYL C ; V 8 KP	CF q GF
28.	; DU ZLT[C DFG K S CF, DADF~ ÖJG ; VMFSFZS KP	CF q GF

THANK YOU