

Appendix- G
Calculation of Reliability of coefficient- College of Education, Karad.

Class Intervals	256-270	271-285	286-300	301-315	316-330	331-345	346-360	361-375	376-390	f	y'	f y'	f y' ²	ΣXY
386 - 400								16		1	4	4	16	16
								1						
371 - 385							9		15	4	3	12	36	48
							2		2					
							18		30					
356 - 370								8		5	2	10	20	24
								1						
								8						
341 - 355										4	1	4	4	9
							3							
							2							
							1							
							2							
326 - 340										18	0	0	0	0
311 - 325										18	-1	-18	18	7
296 - 310										11	-2	-22	44	26
281 - 295										9	-3	-27	81	69
F	7	6	15	16	11	7	4	2	2	70		-37	219	199
X'	-3	-2	-1	0	1	2	3	4	5					
fX'	-21	-12	-15	0	11	14	12	8	10	7				
fX' ²	63	24	15	0	11	28	36	32	50	259				
ΣX'Y'	63	24	20	0	-4	18	24	24	30	199				

$$r = \frac{\sum x' y' - C_x C_y}{\sigma_x \cdot \sigma_y}$$

1) Find out the values of C_x and C_y

$$C_x = \frac{\sum fx'}{N} = \frac{7}{70} = 0.1$$

$$C_y = \frac{\sum fy'}{N} = \frac{-37}{70} = -0.5286$$

2) Find out the values of σ_x and σ_y

$$\sigma_x = \sqrt{\frac{\sum fx'^2}{N} - C_x^2} = 1.921$$

$$\sigma_y = \sqrt{\frac{\sum fy'^2}{N} - C_y^2} = 1.688$$

3) Find out the value of

$$\frac{\sum x' y'}{N} = 2.843$$

$$r = \frac{2.843 - (0.1) \times (-0.5286)}{(1.921 \times 1.688)} = 0.893$$